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PARA light

PARALIGHT ELECTRONICS CO., LTD.

Catalogue

SMD / IRM



PLCC



HIGH POWER LED



LED LAMP



DISPLAY



LCM



www.para.com.tw

Milestone

1987	1993	1994	1999	
 Company established and started 7 segments LED display manufacturing & selling.	 Setup PARA LIGHT NANJING factory in Zhangsu Province, China.	PARA LIGHT HONG KONG branch established.	 USA branch established. Korea branch established. ISO 9001 certified.	
2001	2002	2003	2004	2005
QS 9000 certified.	 New Release for PARA LIGHT patent enhanced power LED. ISO 9002 certified.	Approved to be an OTC company in Taiwan. Capital up to US\$10 million.	 UL, CNS, Energy Label, PSE, CCC & CQC listed for lighting products.	 TS 16949 certified ISO 14001 certified. Capital up to US\$13 million.
2006	2008	2012	2014	
 SMD product line established.	 Approved to be traded in Taiwan Stock Exchange Market.  PARA LIGHT LIAN YUN GANG factory established in Zhangsu Province, China.		Mexico branch established.	

Company Certification



ISO 9001



ISO 14001



TS 16949

Environment Protection



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HIGH POWER LED

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LCM

SMD / IRM

Application:



Part No. System

L – C 19 1 JR C T
 X1 X2 X3 X4 X5 X6

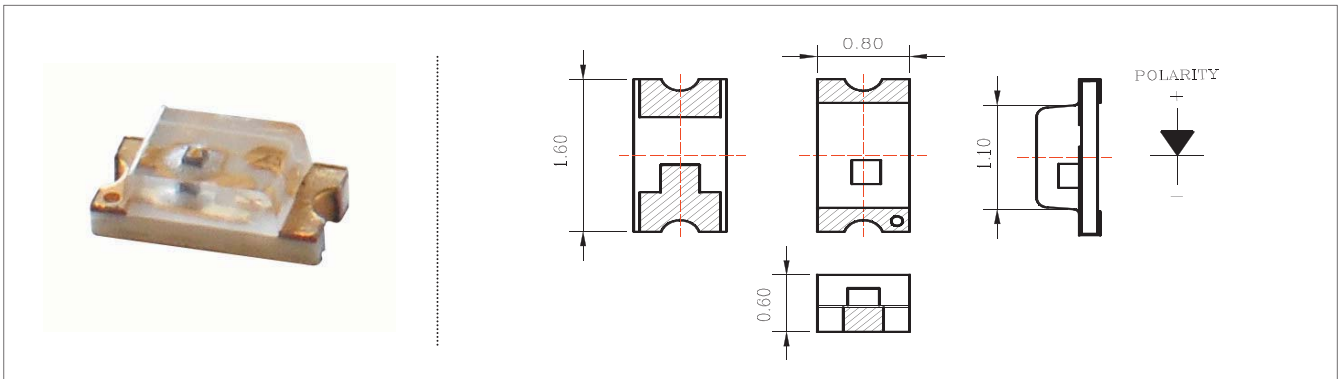
X1 View Type		X2 Package Size (mm)		X3 Number of Chip	
Code	Type	Code	Type	Code	Type
C	Top View Type	15	3.2x1.6 1.1T Type	0	Single chip
S	Side View Type	17	2x1.25 0.8T Type	1 / 2	Super thin single chip
		19	1.6x0.8 0.4T / 0.6T Type	5 / 6	Dual chips
		11	3.2x1.0 1.5T Type	F	Three chips (Full colors)

X4 Emitted Color		X5 Lens Color		X6 Tape Spec.	
Code	Type	Code	Type	Code	Type
G	GaP 570nm Yellow Green	C	Water Clear	T	Taping for 7" reel
Y	GaAsP 585nm Yellow	W	White Diffused	TC	Taping for 13" reel
E	GaAsP 620nm Orange	T	Color Transparent		
SR	GaAlAs 640nm Red	D	Color Diffused		
LB / TB	InGaN 470nm Blue				
LG	InGaN 525nm Ultra Green				
KG	AlInGaP 570nm Super Yellow Green				
JG	AlInGaP 572nm Super Yellow Green				
KY / JY	AlInGaP 590nm Super Yellow				
JF / KF	AlInGaP 605nm Super Amber				
KR / JR	AlInGaP 630nm Super Red				
W	InGaN White				

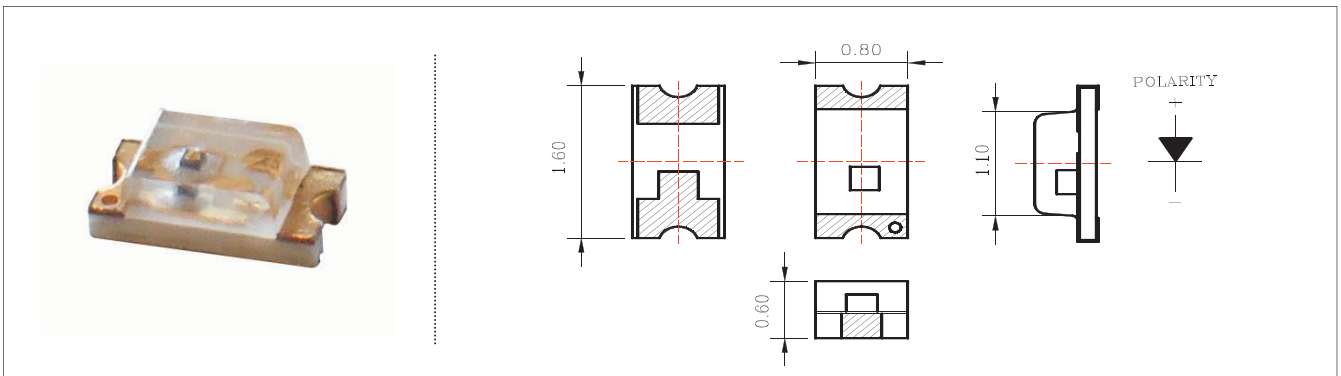
Reliability Test

Classification	Test Item	Test Condition	Reference Standard
Endurance Test	Operation Life	Ta= Under Room Temperature As Per Data Sheet Maximum Rating *Test Time= 1000HRS (-24HRS,+72HRS)*@20mA.	MIL-STD-750D:1026 (1995) MIL-STD-883D:1005 (1991) JIS C 7021:B-1 (1982)
	High Temperature High Humidity Storage	IR-Reflow In-Board, 2 Times Ta= 65±5℃, RH= 90~95% *Test Time= 1000HRS±2HRS	MIL-STD-202F:103B(1980) JIS C 7021:B-11(1982)
	High Temperature Storage	Ta= 105±5℃ *Test Time= 1000HRS (-24HRS,72HRS)	MIL-STD-883D:1008 (1991) JIS C 7021:B-10 (1982)
	Low Temperature Storage	Ta= -55±5℃ *Test Time=1000HRS (-24HRS,72H RS)	JIS C 7021:B-12 (1982)
Environmental Test	Temperature Cycling	105±5℃ -55±5℃ 10 mins. 10 mins. 100 cycles	MIL-STD-202F:107D (1980) MIL-STD-750D:1051(1995) MIL-STD-883D:1010 (1991) JIS C 7021:A-4(1982)
	Thermal Shock	IR-Reflow In-Board, 2 Times 105±5℃ -55℃±5℃ 10 mins. 10 mins. 100 cycles	MIL-STD-202F:107D(1980) MIL-STD-750D:1051(1995) MIL-STD-883D:1011 (1991)
	Solder Resistance	Tsol= 260 ± 5℃ Dwell Time= 10 ± 1 sec.	MIL-STD-202F:210A(1980) MIL-STD-750D:2031(1995) JIS C 7021:A-1(1982)
	Solder Ability	Tsol= 235 ± 5℃ Immersion time 2±0.5 sec. Immersion rate 25±2.5 mm/sec. Coverage ≥ 95% of the dipped surface	MIL-STD-202F:208D(1980) MIL-STD-750D:2026(1995) MIL-STD-883D:2003(1991) IEC 68 Part 2-20 JIS C 7021:A-2(1982)

- All SMD/IRM product dimensions are in millimeters.
- Specifications are subject to change without notice.
- Tolerance is ±0.1mm unless otherwise specified. (IRM product dimensions tolerance is ±0.25mm)

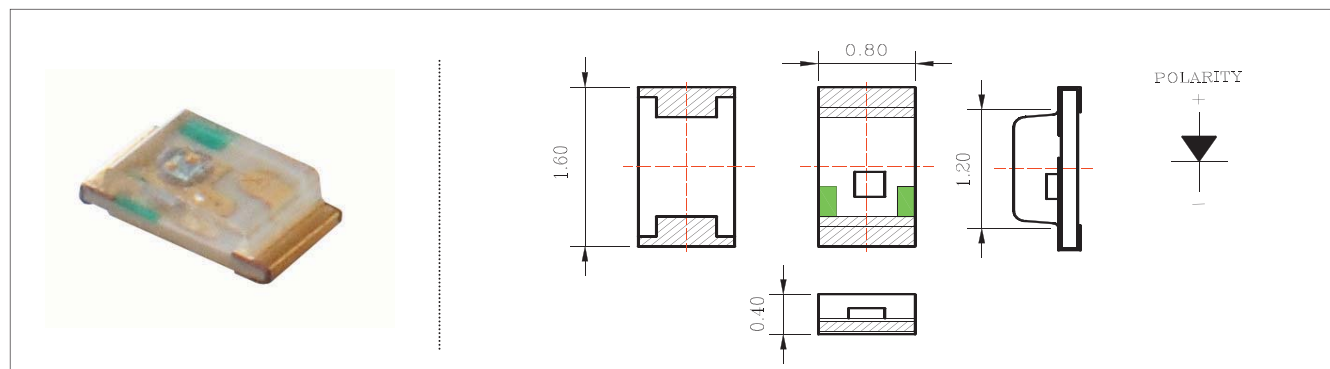
L-C191XXXX -1.6x0.8x0.6mm SURFACE MOUNT DEVICE LED (0603)

Part No.	Chip		Lens Color	Wave length λ _D (nm)	Electro-optical characteristics			View Angle (deg.)
	Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
					Typ.	Max.	Typ.	
L-C191JRCT	AlInGaP	 Super Red	Water Clear	630	1.9	2.4	70	120
L-C191JYCT	AlInGaP	 Super Yellow	Water Clear	590	2.0	2.4	100	120
L-C191JFCT	AlInGaP	 Super Amber	Water Clear	605	2.0	2.4	80	120
L-C191JGCT	AlInGaP	 Super Yellow Green	Water Clear	570	2.05	2.4	30	120
L-C191LGCT	InGaN	 Ultra Green	Water Clear	525	3.1	3.6	300	120
L-C191QYCT	AlInGaP	 Super Yellow	Water Clear	590	1.9	2.4	160	120

L-C191XXXX -1.6x0.8x0.6mm SURFACE MOUNT DEVICE LED (0603)

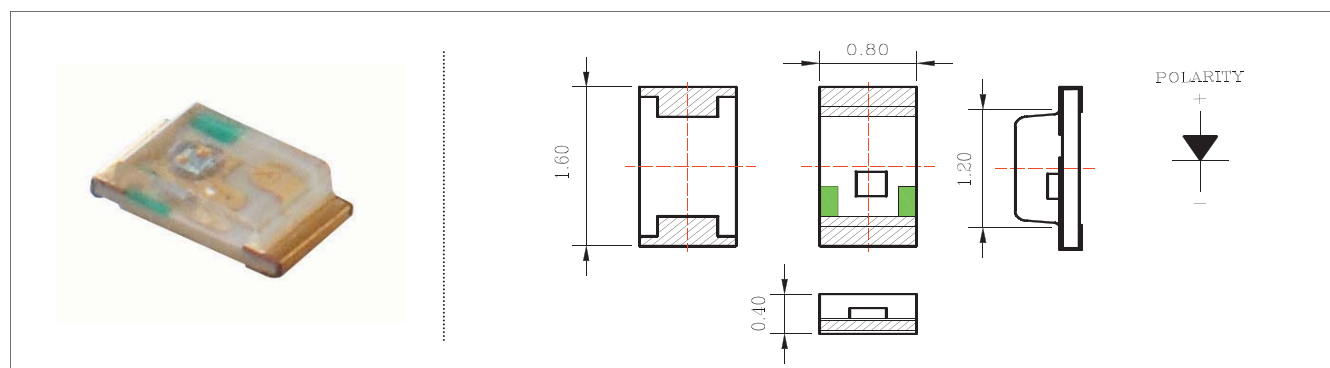
Part No.	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
	Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
					Typ.	Max.	Typ.	
L-C191KGCT	AlInGaP	 Super Yellow Green	Water Clear	570	2.05	2.4	30	120
L-C191KFCT	AlInGaP	 Super Amber	Water Clear	605	2	2.4	90	120
L-C191LBCT	InGaN	 Blue	Water Clear	470	3.3	3.6	100	120
L-C191TBCT(5mA)	InGaN	 Blue	Water Clear	470	2.8	3.1	20	120
L-C191WDT(5mA)	InGaN	 Cool White	Light Yellow Diffused	X:0.3 Y:0.3	2.8	3.1	150	120
L-C191TBZCT-XX(5mA)	InGaN	 Blue	Water Clear	470	2.8	3.1	40	120

L-C192XXXX -1.6x0.8x0.4mm SURFACE MOUNT DEVICE LED (0603)

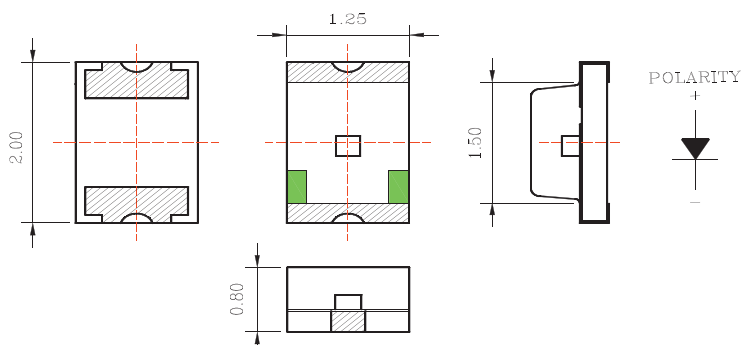


Part No.	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
	Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
					Typ	Max.	Typ.	
L-C192JRCT	AlInGaP	 Super Red	Water Clear	630	1.9	2.4	50	120
L-C192JGCT	AlInGaP	 Super Yellow Green	Water Clear	570	2.05	2.4	30	120
L-C192LGCT	InGaP	 Ultra Green	Water Clear	525	3.1	3.5	300	120
L-C192KYCT	AlInGaP	 Super Yellow	Water Clear	590	2.05	2.4	70	120
L-C192KRCT	AlInGaP	 Super Red	Water Clear	630	1.9	2.4	50	120
L-C192WZDT-JD	InGaP	 Cool White	Light Yellow Diffused	X:0.3 Y:0.3	3.1	3.4	320	120

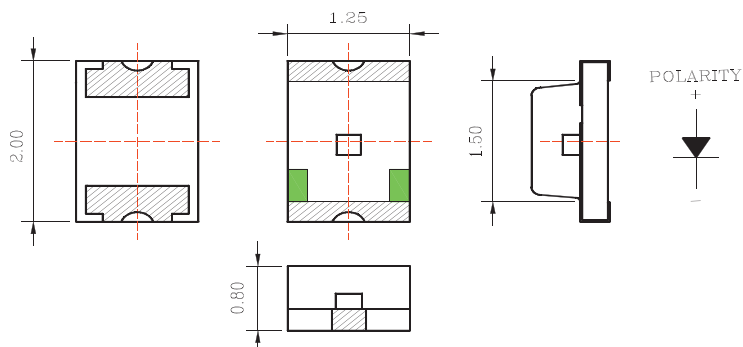
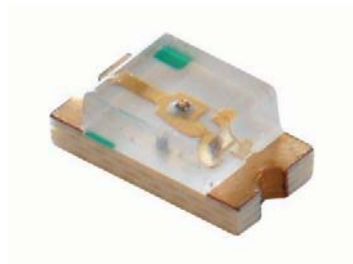
L-C192XXXX -1.6x0.8x0.4mm SURFACE MOUNT DEVICE LED (0603)



Part No.	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
	Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
					Typ.	Max.	Typ.	
L-C192KGCT	AlInGaP	 Super Yellow Green	Water Clear	570	2.05	2.4	30	120
L-C192KFCT	AlInGaP	 Super Orange	Water Clear	605	2	2.4	100	120
L-C192LBCT	InGaP	 Blue	Water Clear	470	3.3	3.6	100	120
L-C192TBCT(5mA)	InGaP	 Blue	Water Clear	470	2.8	3.1	16	120
L-C192WDT(5mA)	InGaP	 Cool White	Light Yellow Diffused	X:0.3 Y:0.3	2.8	3.2	150	120
L-C192TBZ-XX(5mA)	InGaP	 Blue	Water Clear	470	2.8	3.1	16	120

L-C170XXXX -2.0x1.25x0.8mm SURFACE MOUNT DEVICE LED (0805)

Part No.	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
	Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
					Typ.	Max.	Typ.	
L-C170JRCT	AlInGaP	 Super Red	Water Clear	630	1.9	2.4	70	120
L-C170JYCT	AlInGaP	 Super Yellow	Water Clear	590	2.05	2.4	100	120
L-C170JFCT	AlInGaP	 Super Amber	Water Clear	605	2.0	2.4	80	120
L-C170JGCT	AlInGaP	 Super Yellow Green	Water Clear	570	2.05	2.4	30	120
L-C170LGCT	InGaN	 Ultra Green	Water Clear	525	3.1	3.6	300	120
L-C170QRCT	AlInGaP	 Super Red	Water Clear	630	1.9	2.4	100	120

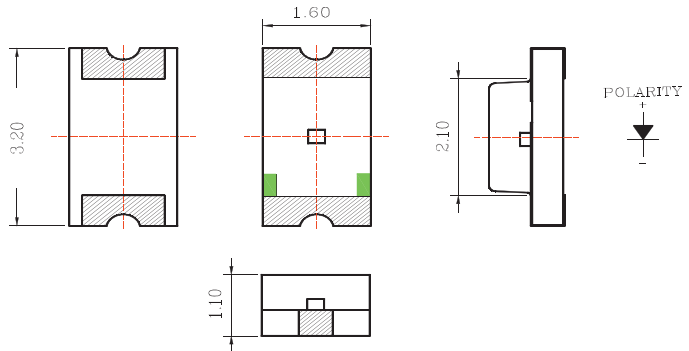
L-C170XXXX -2.0x1.25x0.8mm SURFACE MOUNT DEVICE LED (0805)

Part No.	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
	Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
					Typ.	Max.	Typ.	
L-C170KGCT	AlInGaP	 Super Yellow Green	Water Clear	570	2.05	2.4	30	120
L-C170KFCT	AlInGaP	 Super Amber	Water Clear	605	2	2.4	80	120
L-C170LBCT	InGaN	 Blue	Water Clear	470	3.3	3.6	100	120
L-C170TBCT(5mA)	InGaN	 Blue	Water Clear	470	2.8	3.1	16	120
L-C170WDT	InGaN	 Cool White	Light Yellow Diffused	X:0.3 Y:0.3	3.2	3.5	350	120

SMD / IRM

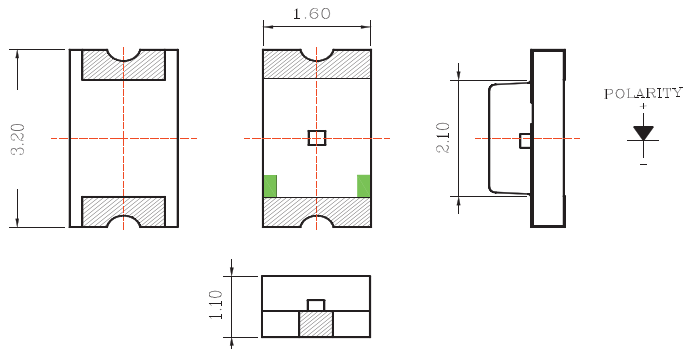
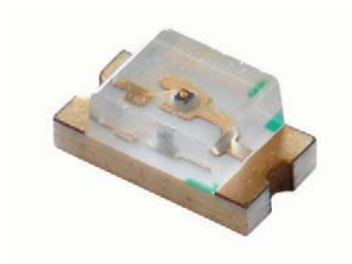
SMD / IRM

L-C150XXXX -3.2x1.6x1.1mm SURFACE MOUNT DEVICE LED (1206)

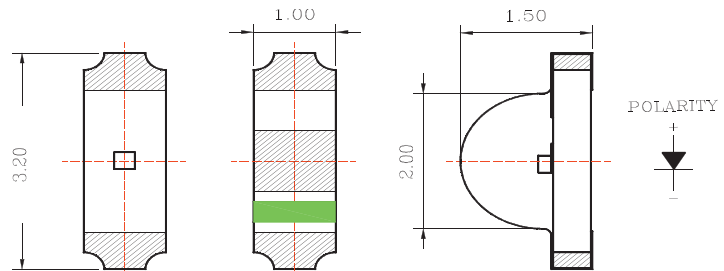


Part No.	Chip		Lens Color	Wave length λ _D (nm)	Electro-optical characteristics			View Angle (deg.)
	Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
					Typ	Max.	Typ.	
L-C150JRCT	AlInGaP	 Super Red	Water Clear	630	1.9	2.4	80	120
L-C150JYCT	AlInGaP	 Super Yellow	Water Clear	590	2.05	2.4	75	120
L-C150JGCT	AlInGaP	 Super Yellow Green	Water Clear	570	2.05	2.4	40	120
L-C150JFCT	AlInGaP	 Super Amber	Water Clear	605	2	2.4	80	120
L-C150LGCT	InGan	 Ultra Green	Water Clear	525	3.1	3.6	300	120
L-C150QYCT	AlInGaP	 Super Yellow	Water Clear	590	1.9	2.4	120	120

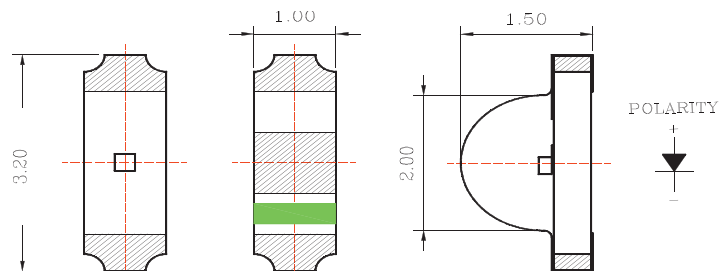
L-C150XXXX -3.2x1.6x1.1mm SURFACE MOUNT DEVICE LED (1206)



Part No.	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
	Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
					Typ.	Max.	Typ.	
L-150KFCT	AlInGaP	 Super Amber	Water Clear	605	2	2.4	80	120
L-C150LBCT	InGaN	 Blue	Water Clear	470	3.3	3.8	120	120
L-C150TBCT(5mA)	InGaN	 Blue	Water Clear	470	2.8	3.1	16	120
L-C150WDT	InGaN	 Cool White	Light Yellow Diffused	X:0.3 Y:0.3	3.2	3.5	220	120
L-C150TBZCT-AG(5mA)	InGaN	 Blue	Water Clear	470	2.8	3.1	22	120
L-C150WZDT-JD(2mA)	InGaN	 Cool White	Light Yellow Diffused	X:0.3 Y:0.3	2.7	2.9	45	120

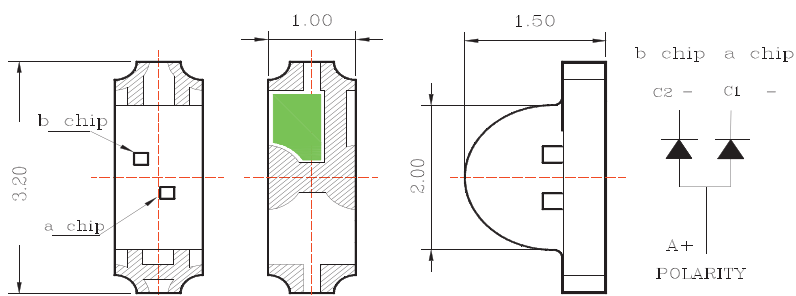
L-S110XXXX -3.2x1.0x1.5mm SURFACE MOUNT DEVICE LED (1204)

Part No.	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
	Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
					Typ.	Max.	Typ.	
L-S110JRCT	AlInGaP	 Super Red	Water Clear	630	1.9	2.4	60	120
L-S110JYCT	AlInGaP	 Super Yellow	Water Clear	590	2.05	2.4	70	120
L-S110JFCT	AlInGaP	 Super Amber	Water Clear	605	2.0	2.4	80	120
L-S110JGCT	AlInGaP	 Super Yellow Green	Water Clear	570	2.05	2.4	50	120
L-S110LGCT	InGaN	 Ultra Green	Water Clear	525	3.1	3.6	300	120
L-S110QRCT	AlInGaP	 Super Red	Water Clear	630	1.9	2.4	120	120

L-S110XXXX -3.2x1.0x1.5mm SURFACE MOUNT DEVICE LED (1204)

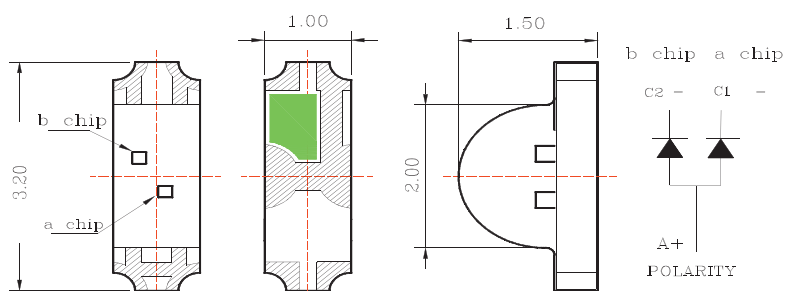
Part No.	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
	Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
					Typ.	Max.	Typ.	
L-S110KGCT	AllnGaP	 Super Yellow Green	Water Clear	570	2.05	2.4	30	120
L-S110KFCT	AllnGaP	 Super Amber	Water Clear	605	2	2.4	80	120
L-S110LBCT	InGaN	 Blue	Water Clear	470	3.3	3.6	120	120
L-S110TBCT(5mA)	InGaN	 Blue	Water Clear	470	2.8	3.1	20	120
L-S110WDT	InGaN	 Cool White	Light Yellow Diffused	X:0.3 Y:0.3	3.2	3.5	300	120
L-S110QECT	AllnGaP	 Super Orange	Water Clear	620	2.0	2.4	140	120

L-S115XXXXXX -3.2x1.0x1.5mm SURFACE MOUNT DEVICE LED (1204)



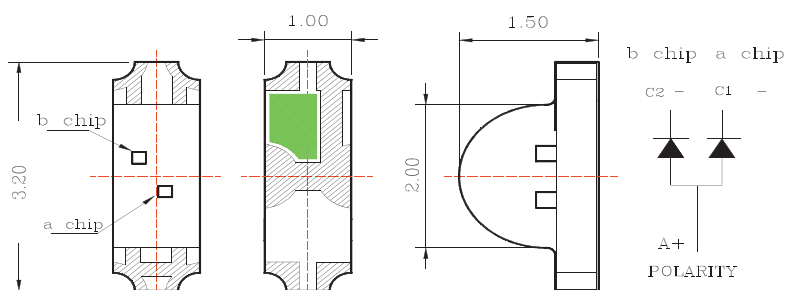
Part No.	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
	Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
					Typ	Max.	Typ.	
L-S115KGKFACT	AllnGaP	 Super Yellow Green	Water Clear	570	2.05	2.4	50	120
	AllnGaP	 Super Amber		605	2	2.4	80	120
L-S115GECT	GaP	 Yellow Green	Water Clear	570	2.1	2.6	12.5	120
	GaAsP	 Super Orange		620	2.1	2.6	8.3	120

LS115XXXXXX -3.2x1.0x1.5mm SURFACE MOUNT DEVICE LED (1204)



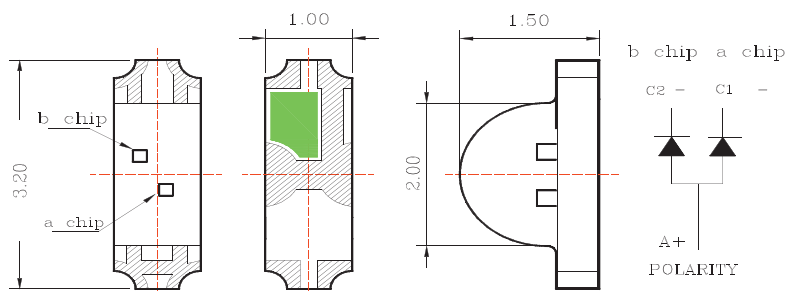
Part No.	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
	Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
					Typ.	Max.	Typ.	
L-S115KFLGCT	AllnGaP	 Super Amber	Water Clear	605	2	3.1	30	120
	InGaN	 Ultra Green		525	3.4	3.6	300	120
L-S115KRKGCT-5A	AllnGaP	 Super Red	Water Clear	630	1.8	2.4	20	120
	AllnGaP	 Super Yellow Green		570	1.95	2.3	10	120

L-S115XXXXXX -3.2x1.0x1.5mm SURFACE MOUNT DEVICE LED (1204)



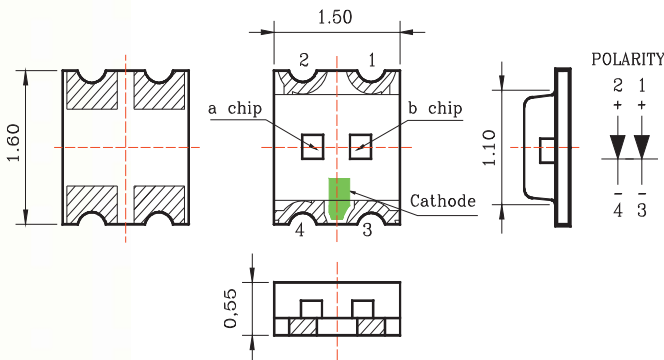
Part No.	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
	Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
					Typ	Max.	Typ.	
L-S115KGKRCT	AlInGaP	 Super Yellow Green	Water Clear	570	2.05	2.4	30	120
	AlInGaP	 Super Red		630	1.8	2.4	80	120
L-S115LBKFCT	InGaP	 Blue	Water Clear	470	2.8	3.5	80	120
	AlInGaP	 Super Amber		605	1.8	2.5	80	120

L-S115XXXXXX -3.2x1.0x1.5mm SURFACE MOUNT DEVICE LED (1204)



Part No.	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
	Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
					Typ.	Max.	Typ.	
L-S115KRLBCT-5A	AlInGaP	 Super Red	Water Clear	630	1.8	2.4	20	120
	InGaP	 Blue		470	3	3.5	30	120
L-S115GFWT	GaP	 Yellow Green	White Diffused	570	2.1	2.6	12.5	120
	GaAsP	 Super Amber		605	2	2.6	6	120

L-C195XXXXXX -1.6x1.5x0.55mm SURFACE MOUNT DEVICE LED (0605)

								
Part No.	Chip		Lens Color	Wave length λ_D (nm)	Electro-optical characteristics			View Angle (deg.)
	Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
					Typ	Max.	Typ.	
L-C195KGJRCT	AlInGaP	 Super Yellow Green	Water Clear	570	2.05	2.4	35	130
	AlInGaP	 Super Red		630	2.0	2.4	45	130
L-C195TBJRCT	InGaP	 Blue	Water Clear	470	3	3.5	80	130
	AlInGaP	 Super Red		630	1.8	2.4	80	130

L-C195XXXXXX -1.6x1.5x0.55mm SURFACE MOUNT DEVICE LED (0605)

Part No.	Chip		Lens Color	Wave length λ_D (nm)	Electro-optical characteristics			View Angle (deg.)		
	Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA			
					Typ.	Max.	Typ.			
L-C195KGJYCT	AlInGaP	 Super Yellow Green	Water Clear	570	2.0	2.4	35	130		
	AlInGaP	 Super Yellow		590	2.0	2.4	75	130		
L-C195TBKYCT-5A	InGaP	 Blue	Water Clear	470	2.9	3.1	25	130		
	AlInGaP	 Super Yellow		590	1.9	2.2	30	130		

L-C195XXXXXX -1.6x1.5x0.55mm SURFACE MOUNT DEVICE LED (0605)

Part No.	Chip		Lens Color	Wave length λ_D (nm)	Electro-optical characteristics			View Angle (deg.)		
	Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA			
					Typ	Max.	Typ.			
L-C195TBKFCT	InGaN	 Blue	Water Clear	470	2.9	3.5	45	130		
	AlInGaP	 Super Amber		605	1.8	2.4	90	130		
L-C195LBLGCT-LT-U1	InGaN	 Blue	Water Clear	470	3.2	3.5	50	130		
	InGaN	 Ultra Green		525	3.2	3.5	180	130		

L-C195XXXXXX -1.6x1.5x0.55mm SURFACE MOUNT DEVICE LED (0605)

Part No.	Chip		Lens Color	Wave length λ_D (nm)	Electro-optical characteristics			View Angle (deg.)		
	Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA			
					Typ.	Max.	Typ.			
L-C195KFWDT-5A	AlInGaP	 Super Amber	Water Clear	605	2.0	2.4	50	130		
	InGaN	 Cool White		X:0.3 Y:0.3	2.75	3.15	130	130		

L-C155XXXXXX -3.2x2.7x1.1mm SURFACE MOUNT DEVICE LED (1210)

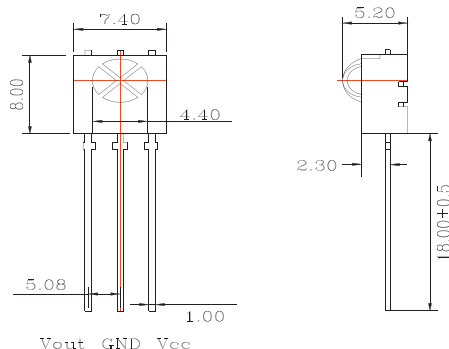
Part No.	Chip		Lens Color	Wave length λ_D (nm)	Electro-optical characteristics			View Angle (deg.)		
	Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA			
					Typ	Max.	Typ.			
L-C155KGJRCT	AllnGaP	 Super Yellow Green	Water Clear	570	2.0	2.4	35	130		
	AllnGaP	 Super Red		630	2.0	2.4	45	130		
L-C155KGJYCT	AllnGaP	 Super Yellow Green	Water Clear	570	2.0	2.4	35	130		
	AllnGaP	 Super Yellow		590	2.0	2.4	75	130		
L-C155TBJRCT	InGaN	 Blue	Water Clear	470	3.1	3.5	80	130		
	AllnGaP	 Super Red		630	2.0	2.4	80	130		

L-C155XXXXXX -3.2x2.7x1.1mm SURFACE MOUNT DEVICE LED (1210)

Technical drawing of the L-C155XXXXXX LED package showing top, side, and cross-sectional views with dimensions: 3.20mm, 2.70mm, 1.10mm, 2.06mm. It also includes a polarity diagram with pins 1, 2, 3, 4 and a cathode label.

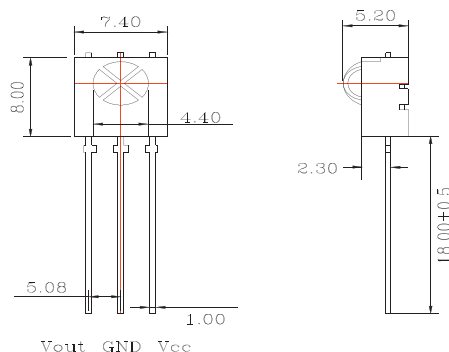
Part No.	Chip		Lens Color	Wave length λ_D (nm)	Electro-optical characteristics			View Angle (deg.)		
	Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA			
					Typ.	Max.	Typ.			
L-C155KGKFCT	AllnGaP	 Super Yellow Green	Water Clear	570	2.0		35	130		
	AllnGaP	 Super Amber		605	2.0		80	130		
L-C195TBJSCT-5A	InGaN	 Blue	Water Clear	470	3.1	3.5		130		
	AllnGaP	 Super Yellow		590	2.0	2.4		130		

PL-IRMXXXXFX/XLXXXX -INFRARED RECEIVER MODULE IRM



Part No.	Electro-optical characteristics														
	Vcc(V)		Icc(Ma)	Wave length λP (nm)	Fo(KHz)	L(m)			Voh(V)	Vol(V)		Twh(us)		Twl(us)	
	Min.	Max.	Max.			0°	30°	45°	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.
PL-IRM1261-C438	2.4	5.5	2.5	940	38	16	/	8	2.4	0.1	0.5	600	800	600	800
PL-IRM1261-F438	2.4	5.5	2.5	940	38	5	/	/	2.4	0.1	0.5	600	800	600	800
PL-IRM1261-C440	2.4	5.5	2.5	940	40	16	9	/	2.4	0.1	0.5	600	800	600	800
PL-IRM1261-C456	2.4	5.5	2.5	940	56	16	9	/	2.4	0.1	0.5	600	800	600	800

PL-IRMXXXXFX/XLXXXX -INFRARED RECEIVER MODULE IRM

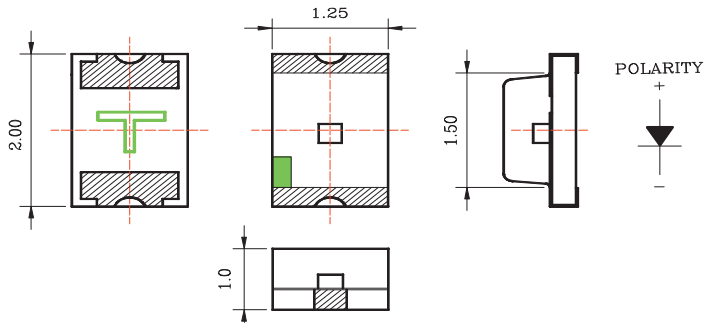
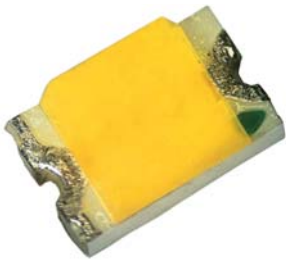


Part No.	Electro-optical characteristics														
	Vcc(V)		Icc(Ma)	Wave length λP (nm)	Fo(KHz)	L(m)			Voh(V)	Vol(V)		Twh(us)		Twl(us)	
	Min.	Max.	Max.			0°	30°	45°	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.
PL-IRM1261-C438-8	2.4	5.5	2.5	940	38	16	9	/	2.4	0.1	0.5	600	800	600	800
PL-IRM1261-C438-03	2.4	5.5	2.5	940	38	16	9	/	2.4	0.1	0.5	600	800	600	800
PL-IRM12A1-C438	2.7	5.5	2.5	940	38	16	9	/	2.7	0.1	0.5	600	800	600	800
PL-IRM0101-3	4.5	5	2.5	940	38	35	9	/	4.5	0.1	0.5	600	800	600	800

SMD / IRM

L-C170XXXXXX -2.0x1.25x1.0mm SURFACE MOUNT DEVICE LED (0805)

SMD / IRM



Part No.	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
	Raw Material	Emitted Color			VF(V)60mA		Φ (lm) @60mA	
					Typ.	Max.	Typ.	
L-C170WDT-5700	InGaN	 White	Light Yellow Diffused	X:0.33 Y:0.33	3.2	3.5	24	140

PLCC

Application:



Part No. System

L – T 67 0 W D T – CW1 – R
 X1 X2 X3 X4 X5 X6 X7 X8

X1		X2		X3		X4	
View Type		Package Size (mm)		Number of Chip		Emitted Color	
Code	Type	Code	Type	Code	Type	Code	Type
T	Top View	65	3.0x2.0, 1.3T	0	Single chip	LB/TB	InGaN 465nm Blue
S	Side View	67	3.5x2.8, 1.9T	5/6	Dual chips	LG/SG	InGaN 525nm Ultra Green
		68	5.6x3.0, 0.9T	F	Three chips	KG	AlInGaP 572nm Super Yellow Green
		69	5.0x5.0, 1.5T		(Full colors)	KY/HY	AlInGaP 590nm Super Yellow
		02	3.8x1.2, 0.6T			KF	AlInGaP 605nm Super Amber
		2835	2.8x3.5, 0.8T			HE	AlInGaP 624nm Super Orange
		3014	3.0x1.4, 0.8T			KR	AlInGaP 630nm Super Red
						W	InGaN White
						IR4	GaAlAs 850nm Infrared
						RGB	AlInGaP 624nm Super Orange / InGaN 525nm Ultra Green / InGaN 470nm Blue

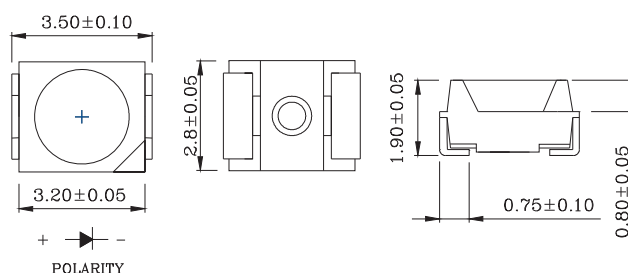
X5		X6		X7		X8	
Lens Color		Tape Spec.		Color Temperature		Ra	
Code	Type	Code	Type	Code	Type	Code	Type
C	Water Clear	T	Taping for 7" reel	CW1	5,500~6,500K	M	65~70
D	Light Yellow Diffused			CW3	5,200~6,000K	N	70~75
				CW2	5,000~7,000K	P	75~80
				CWA	5,000~5,500K	Q	80~85
				NW2	4,200~5,000K	R	≥85
				NWA	4,000~4,500K		
				NW1	3,800~4,600K		
				NW5	3,500~4,200K		
				WW2	2,850~3,250K		
				WW1	2,500~3,800K		

Reliability Test

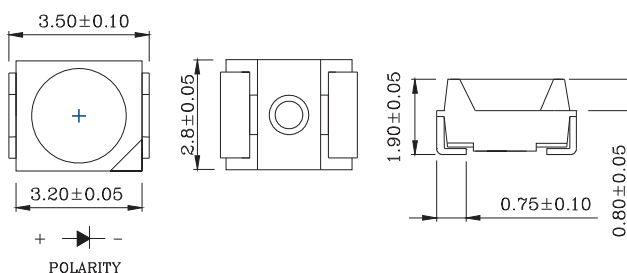
Classification	Test Item	Test Condition	Reference Standard
Endurance Test	Operation Life	Ta= Under Room Temperature As Per Data Sheet Maximum Rating *Test Time= 1000HRS (-24HRS,+72HRS)	MIL-STD-750D:1026 (1995) MIL-STD-883D:1005 (1991) JIS C 7021:B-1 (1982)
	High Temperature High Humidity Storage	IR-Reflow In-Board, 2 Times Ta= 65±5℃,RH= 90~95% *Test Time= 1000HRS±2HRS	MIL-STD-202F:103B(1980) JIS C 7021:B-11(1982)
	High Temperature Storage	Ta= 105±5℃ *Test Time= 1000HRS (-24HRS,72HRS)	MIL-STD-883D:1008 (1991) JIS C 7021:B-10 (1982)
	Low Temperature Storage	Ta= -40±5℃ *Test Time=1000HRS (-24HRS,72H RS)	JEITA ED-4701200 202
Environmental Test	Temperature Cycling	-40℃ ~ 25℃~100℃~25℃ 30min. 5min. 30min. 5min. 100 cycles	JEITA ED-4701100 105
	Thermal Shock	IR-Reflow In-Board, 2 Times -40℃ ~ 100℃ 30min. 30min. 100 cycles	JEITA ED-4701300 307
	Solder Resistance	Tsol= 260 ± 5℃ Dwell Time= 10 ± 1 sec.	JEITA ED-4701300 301
	Solder Ability	Tsol= 235 ± 5℃ Immersion time 2±0.5 sec. Immersion rate 25±2.5 mm/sec. Coverage ≥95% of the dipped surface	JEITA ED-4701300 303

- All PLCC product dimensions are in millimeters.
- Tolerance is ±0.1mm unless otherwise specified.

- Specifications are subject to change without notice.

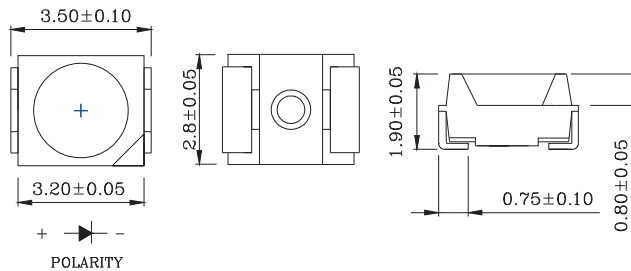
LT670WDT-XXX -3.5x2.8x1.9mm SURFACE MOUNT DEVICE LED


Part No.	CRI	Chip		Lens Color	CCT(K)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-T670WDT	70	InGaN	 Cool White	Light Yellow Diffused	5600~9000	3.2	3.6	1600	120
L-T670WDT-CW1-M-P	65	InGaN	 Cool White	Light Yellow Diffused	5500-6500	3.2	3.6	2430	120
L-T670WDT-CW1	70	InGaN	 Cool White	Light Yellow Diffused	5500-6500	3.2	3.6	2250	120
L-T670WDT-CW1-P	75	InGaN	 Cool White	Light Yellow Diffused	5500-6500	3.2	3.6	2250	120
L-T670WDT-CW1-Q	80	InGaN	 Cool White	Light Yellow Diffused	5500-6500	3.2	3.6	2250	120
L-T670WDT-CW1-R	85	InGaN	 Cool White	Light Yellow Diffused	5500-6500	3.2	3.6	2200	120

LT670WDT-XXXX -3.5x2.8x1.9mm SURFACE MOUNT DEVICE LED


Part No.	CRI	Chip		Lens Color	CCT(K)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-T670WDT-NW1	70	InGaN	⦿ Neutral White	Light Yellow Diffused	3800-4600	3.2	3.6	2250	120
LT670WDT-NW5-P	75	InGaN	⦿ Neutral White	Light Yellow Diffused	3500-4200	3.2	3.6	2350	120
L-T670WDT-NW2-Q	80	InGaN	⦿ Neutral White	Light Yellow Diffused	4200-5000	3.2	3.6	2250	120
L-T670WDT-NW2-R	85	InGaN	⦿ Neutral White	Light Yellow Diffused	4200-5000	3.2	3.6	2200	120
L-T670WDT-WW1	70	InGaN	⦿ Warm White	Light Yellow Diffused	2670-3800	3.2	3.6	2200	120
L-T670WDT-WW1-Q	80	InGaN	⦿ Warm White	Light Yellow Diffused	2500-3500	3.2	3.6	2100	120
L-T670WDT-WW1-R	85	InGaN	⦿ Warm White	Light Yellow Diffused	2500-3500	3.2	3.6	2100	120

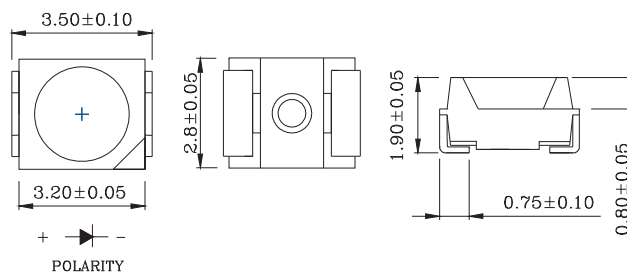
LT670XXCT -3.5x2.8x1.9mm SURFACE MOUNT DEVICE LED



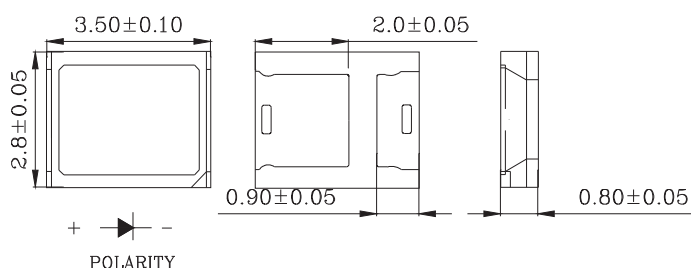
Part No.	Chip		Lens Color	Wave Length λD(nm)	Electro-optical characteristics			View Angle (deg.)
	Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
					Typ.	Max.	Typ.	
L-T670KRCT	AlInGaP	 Super Red	Water Clear	630	2.0	2.5	100	120
L-T670HECT*	AlInGaP	 Super Orange	Water Clear	624	2.0	2.5	500	120
L-T670KFCT	AlInGaP	 Super Amber	Water Clear	605	2.0	2.5	190	120
L-T670KYCT	AlInGaP	 Super Yellow	Water Clear	590	2.0	2.5	230	120
L-T670HYCT*	AlInGaP	 Super Yellow	Water Clear	590	2.0	2.5	590	120
L-T670KGCT	AlInGaP	 Super Yellow Green	Water Clear	572	2.0	2.5	70	120

* Reverse polarity

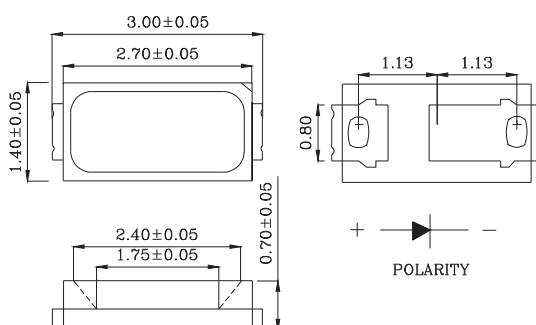
LT670XXCT -3.5x2.8x1.9mm SURFACE MOUNT DEVICE LED



Part No.	Chip		Lens Color	Wave Length λD(nm)	Electro-optical characteristics			View Angle (deg.)
	Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
					Typ.	Max.	Typ.	
L-T670SGCT	InGaN	 Ultra Green	Water Clear	525	3.2	3.6	1000	120
L-T670LGCT	InGaN	 Ultra Green	Water Clear	525	3.2	3.6	1100	120
L-T670TBCT (5mA)	InGaN	 Blue	Water Clear	465	3.0	3.6	60	120
L-T670LBCT	InGaN	 Blue	Water Clear	465	3.2	3.6	280	120
L-T670IR4CT (70mA)	GaAlAs	Infrared	Water Clear	850(λP)	1.6	1.9	1.1mW/sr	120

LT2835WDT-XXX -3.5x2.8x0.8mm SURFACE MOUNT DEVICE LED


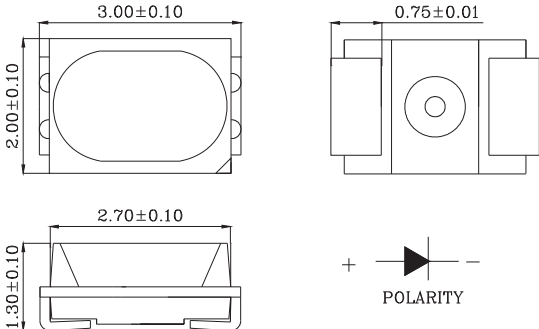
Part No.	CRI	Chip		Lens Color	CCT(K)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)60mA		IV(mcd)60mA	
						Typ.	Max.	Typ.	
L-T2835WDT-CW1-Q	80	InGaN	 Cool White	Light Yellow Diffused	5500-6500	3.2	3.6	6300	120
L-T2835WDT-NW1-Q	80	InGaN	 Neutral White	Light Yellow Diffused	3800-4600	3.2	3.6	6500	120
L-T2835WDT-WW1-Q	80	InGaN	 Warm White	Light Yellow Diffused	2850-3250	3.2	3.6	6200	120

LT3014WDT-XXXX -3.0x1.4x0.7mm SURFACE MOUNT DEVICE LED


Part No.	CRI	Chip		Lens Color	CCT(K)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)30mA		IV(mcd)30mA	
						Typ.	Max.	Typ.	
L-T3014CWDT	70	InGaN	 Cool White	Light Yellow Diffused	5500-6500	3.2	3.6	3400	120
L-T3014NWDT	70	InGaN	 Neutral White	Light Yellow Diffused	4250-4750	3.2	3.6	3400	120
L-T3014WWDT	70	InGaN	 Warm White	Light Yellow Diffused	2850-3250	3.2	3.6	3200	120

LT650WDT-XXXX -3.0x2.0x1.3mm SURFACE MOUNT DEVICE LED





3.00±0.10

2.00±0.10

0.75±0.01

2.70±0.10

1.30±0.10

POLARITY

Part No.	Chip		Lens Color	CCT(K)	Electro-optical characteristics			View Angle (deg.)
	Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
					Typ.	Max.	Typ.	
LT650WDT	InGaN	 Cool White	Light Yellow Diffused	7000-9000	3.0	3.4	1700	120
LT650WDT-WW2	InGaN	 Warm White	Light Yellow Diffused	2850-3250	3.0	3.4	2100	120
LT650WDT-CW3	InGaN	 Cool White	Light Yellow Diffused	5200-6000	3.0	3.4	2200	120

LT650XXCT -3.0x2.0x1.3mm SURFACE MOUNT DEVICE LED

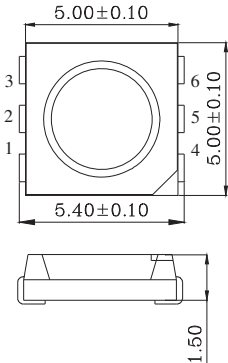
Part No.	Chip		Lens Color	Wave Length λD(nm)	Electro-optical characteristics			View Angle (deg.)		
	Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA			
					Typ.	Max.	Typ.			
LT650KYCT	AlInGaP	 Super Yellow	Water Clear	590	2.0	2.5	200	120		
LT650HYCT*	AlInGaP	 Super Yellow	Water Clear	590	2.0	2.5	430	120		
LT650KFCT	AlInGaP	 Super Amber	Water Clear	605	2.0	2.5	280	120		
LT650KRCT	AlInGaP	 Super Red	Water Clear	630	2.0	2.5	100	120		
LT650HECT*	AlInGaP	 Super Orange	Water Clear	624	2.0	2.5	500	120		
LT650LBCT	InGaN	 Blue	Water Clear	465	3.2	3.6	200	120		
LT650SGCT	InGaN	 Ultra Green	Water Clear	525	3.2	3.6	900	120		

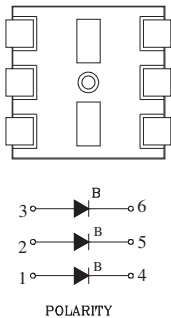
LT69FRGBCT -5.4x5.0x1.5mm SURFACE MOUNT DEVICE LED

Part No.	Chip		Lens Color	Wave Length λ D(nm)	Electro-optical characteristics			View Angle (deg.)		
	Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA			
					Typ.	Max.	Typ.			
LT69FRGBCT	AlInGaP	 Super Orange	Water Clear	624	2.0	2.5	480	120		
	InGaN	 Ultra Green		525	3.2	3.6	1200			
	InGaN	 Blue		470	3.2	3.6	280			

LT690WDT-XXXX -5.4x5.0x1.5mm SURFACE MOUNT DEVICE LED



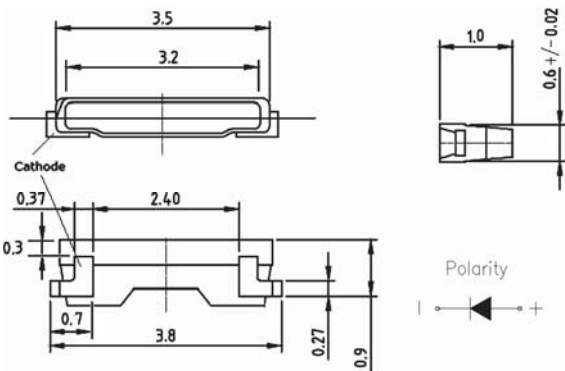




Part No.	CRI	Chip		Lens Color	CCT(K)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)60mA		IV(mcd)60mA	
						Typ.	Max.	Typ.	
L-T690WDT-CWA-P	75	InGaN	 Cool White	Light Yellow Diffused	5000-5500	3.2	3.5	4700	120
L-T690WDT-NWA	---	InGaN	 Neutral White	Light Yellow Diffused	4000-4500	3.2	3.5	5700	120

LS020WWDT-XXXX -3.8x1.0x0.6mm SURFACE MOUNT DEVICE LED

PLCC



Part No.	Chip		Lens Color	CCT(K)	Electro-optical characteristics			View Angle (deg.)		
	Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA			
					Typ.	Max.	Typ.			
LS020WWDT-DS	InGaN	 Warm White	Light Yellow Diffused	2200	3.0	3.4	1900	120		

HIGH
POWER LED

Application:



HIGH POWER LED

High Power LED

Part No. System

EP 5 01 WY L 064 W HR3
X1 X2 X3 X4 X5 X6 X7 X8

HIGH POWER LED

X1		X2		X3		X4	
LED item		Substrate		Power		Emitted Color	
Code	Type	Code	Type	Code	Type	Code	Type
EP	High Power	1	Aluminum	01	0.5~1W	B	InGaN 465nm Blue
		2	Silicon	02	1~2W	G	InGaN 525nm Ultra Green
		3	Ferrum	03	2~3W	Y	AllnGaP 590nm Super Yellow
		4	Ceramic	04	3~4W	A	AllnGaP 606nm Super Amber
		5	Copper	05	4~5W	R	AllnGaP 630nm Super Red
				...	...	W1	InGaN Cool White (5,300~6,800K)
						W5	InGaN Neutral White (4,800~5,600K)
						W2	InGaN Neutral White (3,800~4,600K)
						W4	InGaN Neutral White (3,300~4,300K)
						WY	InGaN Warm White (2,800~3,300K)
						IRA	AlGaAs 745nm Infrared
						IR4	AlGaAs 850nm Infrared
						IR1	AlGaAs 940nm Infrared

X5		X6		X7		X8	
View Angle		Series Number		Housing Color		Ra	
Code	Type			Code	Type	Code	Type
2	2x5=10°			W	White	HR	≥80
3	3x5=15°			B	Black	HR2	≥85
6	6x5=30°					HR3	≥90
C	Cx5=60°						
K	Kx5=100°						
L	Lx5=130°						
M	Mx5=160°						

Chip On Board Part No. System

$\frac{C}{X1}$
 $\frac{R}{X2}$
 $\frac{07}{X3}$
 $\frac{C}{X4} - \frac{P1}{X5}$
 $\frac{C}{X6}$
 $\frac{54}{X7} - \frac{E}{X8}$
 $\frac{C0}{X9}$
 $\frac{00}{X10}$

X1 LED item		X2 Shape		X3 Power		X4 Emitted Color		X5 Substrate	
Code	Type	Code	Type	Code	Type	Code	Type	Code	Type
C	COB	S	Square	20	20W	C	Cool White	P1	Aluminum
		R	Round	07	7W	N	Neutral White	P2	Copper
		L	Line	...	...	W	Warm White	P3	Ceramic
								P4	Others

X6 Glue Sealing Method		X7 Package Size(mm)		X8 Luminous Efficacy		X9 Ra		X10 Specific Code	
Code	Type			Code	Type	Code	Type		
C	Coating			A	60~70 lm/w	B0	60~70		
L	Lens			B	70~80 lm/w	C0	70~80		
				C	80~90 lm/w	D0	80~90		
				D	90~100 lm/w				
				E	100~110 lm/w				
				F	110~120 lm/w				

HIGH POWER LED

High Power LED / Chip On Board Reliability Test

HIGH POWER LED

Classification	Test Item	Test Condition	Reference Standard
Endurance Test	Operation Life	Ta= Under Room Temperature As Per Data Sheet Maximum Rating *Test Time= 1000HRS (-24HRS,+72HRS)	MIL-STD-750D:1026 (1995) MIL-STD-883D:1005 (1991) JIS C 7021:B-1 (1982)
	High Temperature High Humidity Storage	IR-Reflow In-Board, 2 Times Ta= $65 \pm 5^{\circ}\text{C}$, RH= 90~95% *Test Time= 1000HRS $\pm$ 2HRS	MIL-STD-202F:103B(1980) JIS C 7021:B-11(1982)
	High Temperature Storage	Ta= $105 \pm 5^{\circ}\text{C}$ *Test Time= 1000HRS (-24HRS,72HRS)	MIL-STD-883D:1008 (1991) JIS C 7021:B-10 (1982)
	Low Temperature Storage	Ta= $-40 \pm 5^{\circ}\text{C}$ *Test Time=1000HRS (-24HRS,72H RS)	JEITA ED-4701200 202
Environmental Test	Temperature Cycling	$-40^{\circ}\text{C} \sim 25^{\circ}\text{C} \sim 100^{\circ}\text{C} \sim 25^{\circ}\text{C}$ 30min. 5min. 30min. 5min. 100 cycles	JEITA ED-4701100 105
	Thermal Shock	IR-Reflow In-Board, 2 Times $-40^{\circ}\text{C} \sim 100^{\circ}\text{C}$ 30 min. 30 min. 100 cycles	JEITA ED-4701300 307
	Solder Resistance	Tsol= $260 \pm 5^{\circ}\text{C}$ Dwell Time= 10 ± 1 sec.	JEITA ED-4701300 301
	Solder Ability	Tsol= $235 \pm 5^{\circ}\text{C}$ Immersion time 2 ± 0.5 sec. Immersion rate 25 ± 2.5 mm/sec. Coverage $\geq 95\%$ of the dipped surface	JEITA ED-4701300 303

- All High Power LED/COB product dimensions are in millimeters (inches).
- Tolerance is $\pm 0.25\text{mm}$ (0.01") unless otherwise specified.
- Specifications are subject to change without notice.

EP50XXXXX -1W COOL WHITE HIGH POWER LED

Part No.	CRI	Chip		Lens Color	CCT(K)	Electro-optical characteristics			View Angle (deg.)		
		Raw Material	Emitted Color			VF(V)350mA		IV(lm)350mA			
						Typ.	Max.	Typ.			
EP501W1L053WS	72	InGaN	 Cool White	Water Clear	5300-6800	3.2	3.6	130	130		
EP501W1L001WS	75	InGaN	 Cool White	Water Clear	5300-6800	3.2	3.6	125	130		
EP501W1C001WH	75	InGaN	 Cool White	Water Clear	5300-6800	3.2	3.6	125	60		
EP501W1L059WHR	80	InGaN	 Cool White	Water Clear	5300-6800	3.2	3.6	115	130		
EP501W1L056WHR2	85	InGaN	 Cool White	Water Clear	5300-6800	3.2	3.6	100	130		

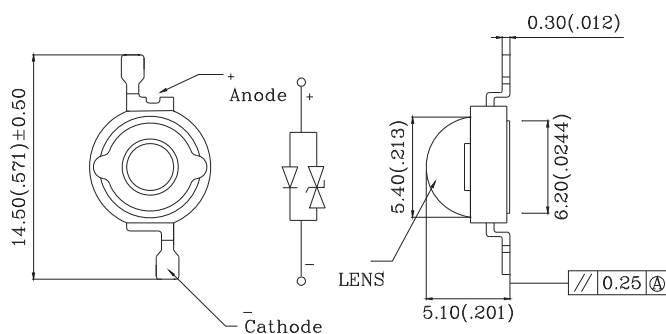
EP50XXXXX -1W NEUTRAL WHITE HIGH POWER LED

Part No.	CRI	Chip		Lens Color	CCT(K)	Electro-optical characteristics			View Angle (deg.)		
		Raw Material	Emitted Color			VF(V)350mA		IV(lm)350mA			
						Typ.	Max.	Typ.			
EP501W2L001W	67	InGaN	Neutral White	Water Clear	3800-4600	3.2	3.6	115	130		
EP501W4L040WHR	80	InGaN	Neutral White	Water Clear	3300-4300	3.2	3.6	110	130		
EP501W5L045W	67	InGaN	Neutral White	Water Clear	4800-5600	3.2	3.6	110	130		
EP501W2L002WL	67	InGaN	Neutral White	Water Clear	3800-4600	3.2	3.6	100	130		

HIGH POWER LED

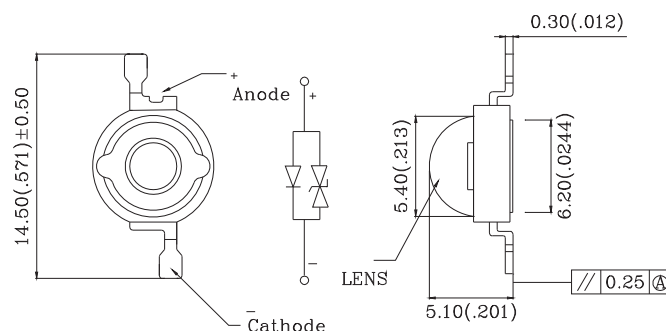
EP50XXXXX -1W WARM WHITE HIGH POWER LED

HIGH POWER LED



Part No.	CRI	Chip		Lens Color	CCT(K)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)350mA		IV(lm)350mA	
						Typ.	Max.	Typ.	
EP501WYL002WH	62	InGaN	 Warm White	Water Clear	2800-3300	3.2	3.6	110	130
EP501WYL002WHR	80	InGaN	 Warm White	Water Clear	2800-3300	3.2	3.6	100	130
EP503WYL095WHR	80	InGaN	 Warm White	Water Clear	2800-3300	3.2	3.6	115	130
EP501WYL061WHR2	85	InGaN	 Warm White	Water Clear	2800-3300	3.2	3.6	95	130
EP501WYL064WHR3	90	InGaN	 Warm White	Water Clear	2800-3300	3.2	3.6	90	130

EP50XXXXX -1W COLOUR HIGH POWER LED



Part No.	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
	Raw Material	Emitted Color			VF(V)350mA		IV(lm)350mA	
					Typ.	Max.	Typ.	
EP501RL003W	AlInGaP	 Super Red	Water Clear	630	2.0	2.5	40	130
EP501BL004W	InGaN	 Blue	Water Clear	465	3.2	3.6	40	130
EP501AL005W	AlInGaP	 Super Amber	Water Clear	606	2.0	2.5	40	130
EP501YL006W	AlInGaP	 Super Yellow	Water Clear	590	2.0	2.5	40	130
EP501GL007W	InGaN	 Ultra Green	Water Clear	525	3.2	3.6	65	130

EP50XXXXX -2W INFRARED HIGH POWER LED

14.50(.571)±0.50

Anode +

Cathode -

LENS

5.40(.213)

6.20(.0244)

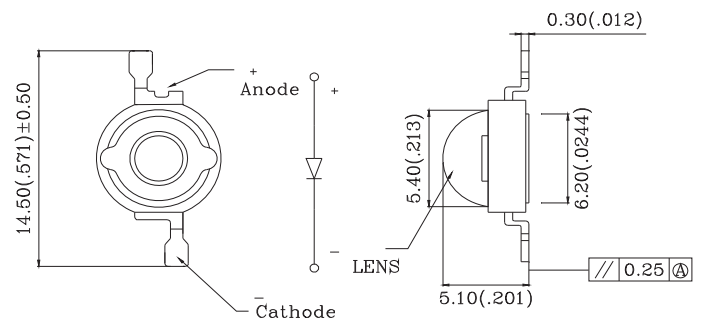
5.10(.201)

0.30(.012)

0.25 A

Part No.	Chip		Lens Color	Wave Length λ_P (nm)	Electro-optical characteristics			View Angle (deg.)
	Raw Material	Emitted Color			VF(V)1000mA		IE(mw/sr) 1000mA	
					Typ.	Max.	Typ.	
EP503IR4L077W	AlGaAs	Infrared	Water Clear	850	2.0	2.3	145	130
EP503IR4L017W	AlGaAs	Infrared	Water Clear	850	2.0	2.3	145	130
EP503IR4L091W	AlGaAs	Infrared	Water Clear	850	2.0	2.3	145	130
EP503IR4L076W	AlGaAs	Infrared	Water Clear	850	2.0	2.3	180	130
EP506IR4L086W	AlGaAs	Infrared	Water Clear	850	4.0	4.6	200	130

EP50XXXXX -1W INFRARED HIGH POWER LED

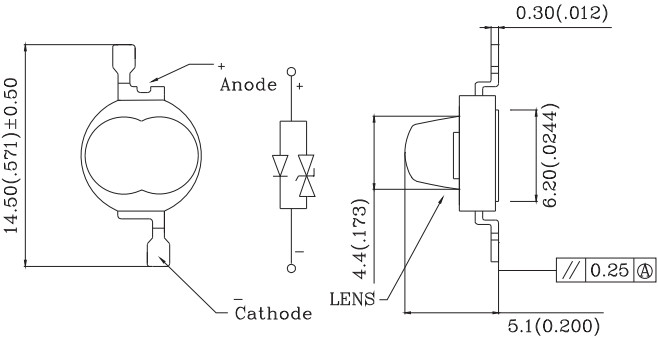



Part No.	Chip		Lens Color	Wave Length λP(nm)	Electro-optical characteristics			View Angle (deg.)
	Raw Material	Emitted Color			VF(V)700mA		IE(mw/sr) 700mA	
					Typ.	Max.	Typ.	
EP502IRAL039W	AlGaAs	Infrared	Water Clear	745	2.0	2.2	70	130
EP501IR1L015W	AlGaAs	Infrared	Water Clear	940	2.0	2.2	40	130

HIGH POWER LED

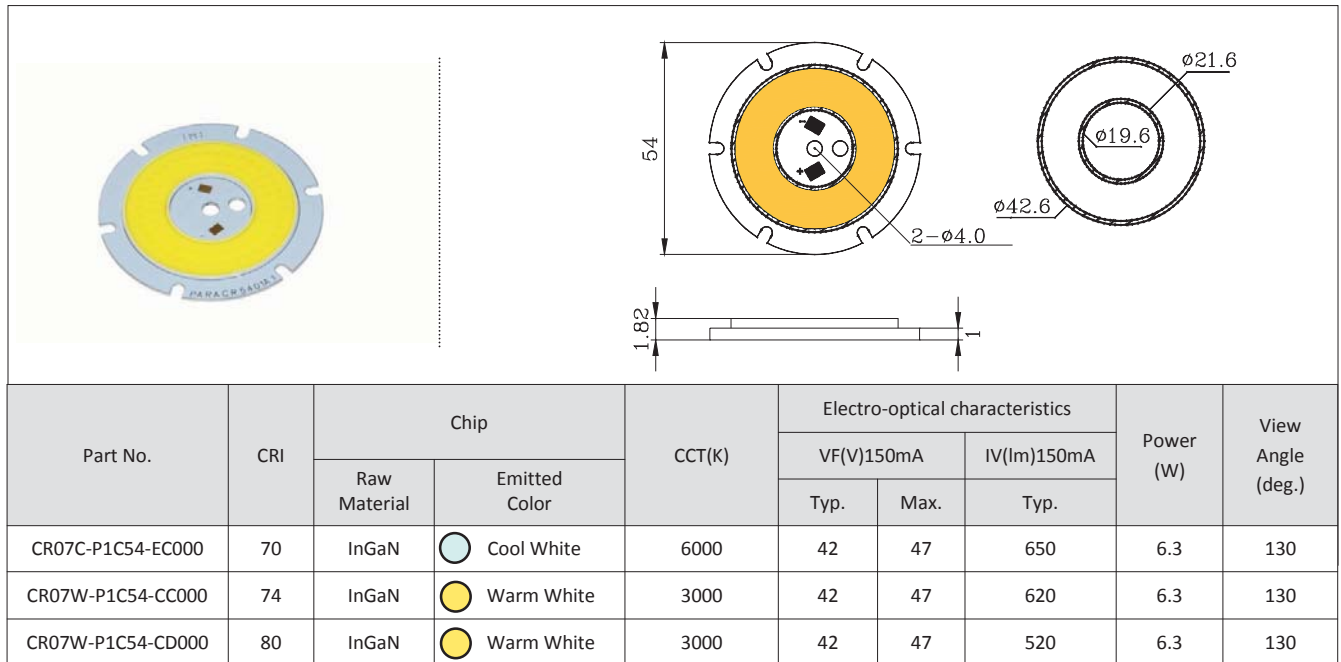
EP50XXXXX -1W BAT-WING TYPE COOL WHITE HIGH POWER LED

HIGH POWER LED

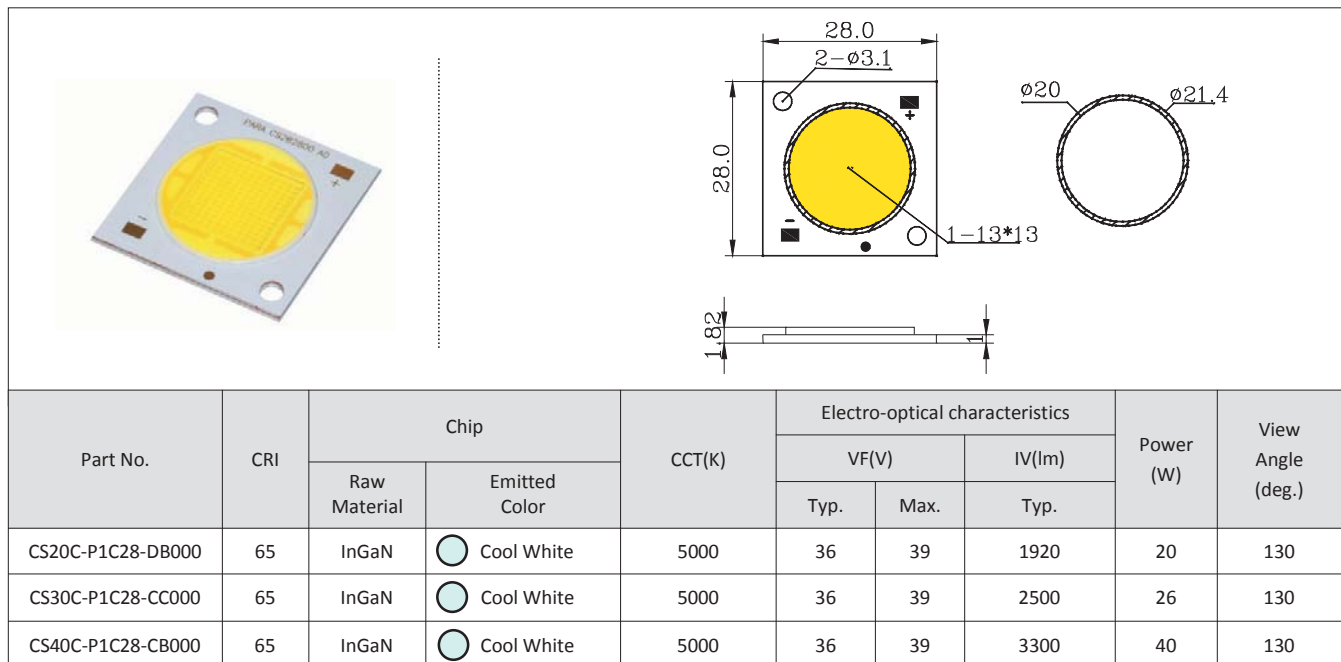


Part No.	CRI	Chip		Lens Color	CCT(K)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)350mA		IV(lm)350mA	
						Typ.	Max.	Typ.	
EP501W1BW071W	70	InGaN	 Cool White	Water Clear	5300-6800	3.2	3.6	115	130

CR07X-P1C54-XXXXX -6.3W CHIP ON BOARD



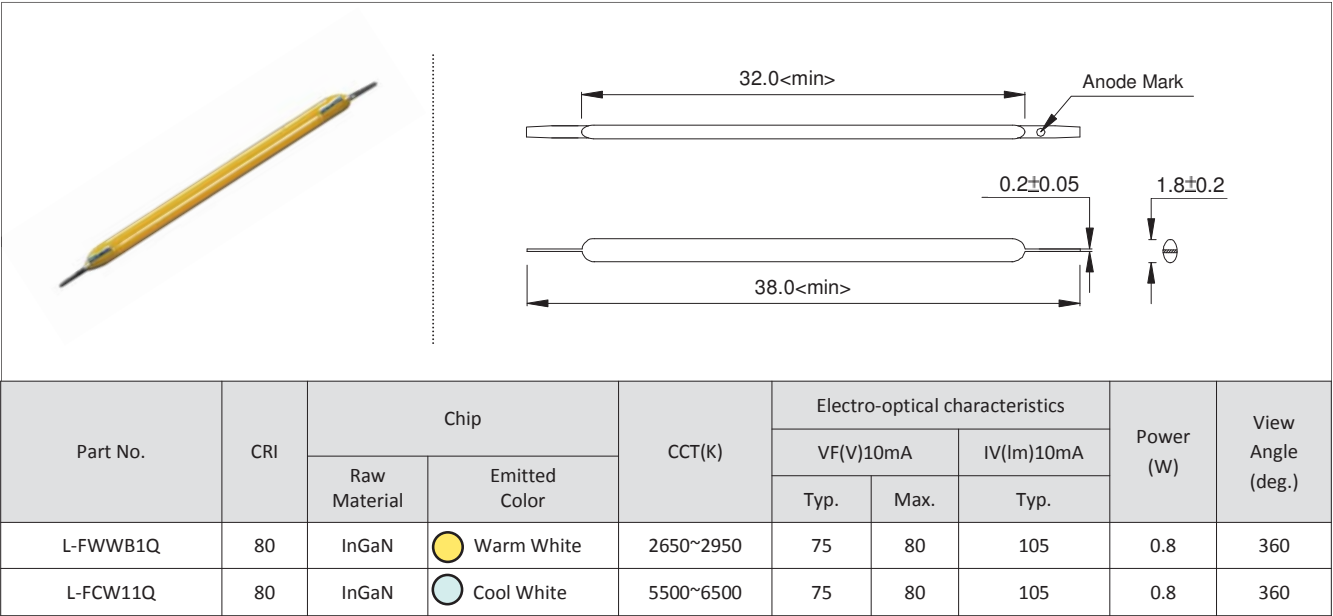
CSXXC-P1C28-XXXXX -20/26/40W CHIP ON BOARD



HIGH POWER LED

L-FXXX1Q-XX -0.8W FILAMENT

HIGH POWER LED



LED LAMP

Application:



LED LAMP

LED Lamp
Part No. System

$\frac{L}{X1} - \frac{51}{X2} \quad \frac{3}{X3} \quad \frac{G}{X4} \quad \frac{D}{X5}$

LED LAMP

X1 LED Item		X2 Lens Type		X3 Lead Length	
Code	Type	Code	Type	Code	Type
L	LAMP	21	2mm Dia. Round	1	0.8" with Stand-off
		31	3mm Dia. Round	2	0.5" Standard
		41	Rectangular	3	1" with Large Reflector
		51	5mm Dia. Round	4	1" with Small Reflector
		...		5	1" with 3 Leads for Dual Colors
				7	1" with 2 Leads for Dual Colors
				9	1" with 3 Leads for Dual Colors

X4 Emitted Color		X5 Lens Color	
Code	Type	Code	Type
G	GaAlInP 570nm Yellow Green	C	Water Clear
UB5	GaInN 470nm Blue	T	Color Transparent
LPG6	GaInN 525nm Ultra Green	W	White Diffused
Y	GaAlInP 587nm Yellow	D	Color Diffused
A	GaAsP 605nm Amber		
E	GaAlInP 628nm Orange		
SR	GaAlInP 640nm Red		
VG3	GaAlInP 572nm Super Yellow Green		
VYA / VYX / LY1	GaAlInP 587nm Super Yellow		
LY5	GaAlInP 590nm Super Yellow		
VEA / VEX	GaAlInP 624nm Super Orange		
HUR	GaAlInP 633nm Super Red		
UW5 / QW	GaInN White		

LED Lamp

Reference Part No. System

L – M R 3 G C 001
X1 X2 X3 X4 X5 X6 X7

X1		X2		X3		X4
LED Item		Announced Year		Shape of Lens		Diameter of Lens (mm)
Code	Type	Code	Type	Code	Type	
L	LAMP	H	2008	R	Round	
		J	2009	E	Ellipse	
		K	2010	S	Rectangular	
		L	2011	F	Super Flux LED	
		M	2012			
		...				

X5		X6		X7
Emitted Color		Lens Color		Series Number
Code	Type	Code	Type	
G	GaAlInP 570nm Yellow Green	C	Water Clear	
UB5	GaInN 470nm Blue	T	Color Transparent	
LPG6	GaInN 525nm Ultra Green	W	White Diffused	
Y	GaAlInP 587nm Yellow	D	Color Diffused	
A	GaAsP 605nm Amber			
E	GaAlInP 628nm Orange			
SR	GaAlInP 640nm Red			
VG3	GaAlInP 572nm Super Yellow Green			
VYA / VYX / LY1	GaAlInP 587nm Super Yellow			
LY5	GaAlInP 590nm Super Yellow			
VEA / VEX	GaAlInP 624nm Super Orange			
HUR	GaAlInP 633nm Super Red			
UW5 / QW	GaInN White			

LED LAMP

Holder LED

Part No. System

$\frac{L-H}{X1}$ $\frac{3}{X2}$ $\frac{1}{X3}$ $\frac{1}{X4}$ $\frac{005}{X5}$ $\frac{B}{X6}$

LED LAMP

X1	X2	X3	X4
LED Item	Diameter of Lamp Lens(mm)	Number of Lamp	Holder type

Code Type
 LH Holder LED

X5	X6
Series Number	Pin Length(mm)

Code	Type
A	2.75
B	3.00
C	3.20
D	3.30
E	3.50
F	4.00
G	5.00
H	18.00
...	...

LED Lamp / Holder LED

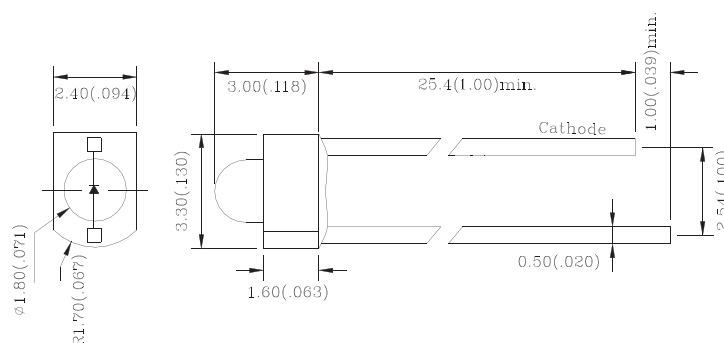
Reliability Test

Classification	Test Item	Test Condition	Reference Standard
Endurance Test	Operation Life	Ta: 25±5℃ RH: ≤60%RH IF: 20mA *Test Time: 168HRS (-12HRS, +12HRS) 500HRS (-24HRS, +24HRS) 800HRS (-24HRS, +24HRS) 1000HRS (-24HRS, +72HRS)	MIL-STD-750D:1026 (1995) MIL-STD-883D:1005 (1991)
	High Temperature High Humidity Storage	Ta= 65±5℃, RH= 90~95% *Test Time= 240HRS±2HRS	MIL-STD-202F:103B(1980)
	IR-Reflow	Warm Up: 230℃ 240 sec. Reflow : 260℃ 40 sec. 2 cycles	JEITA ED-4701300-301
	Salt Spray	Ta: 35℃±3℃ Brine:5% Test Time: 48HRS	MIL-STD-202G:101E
	Temperature Cycling	105℃~25℃~-55℃~25℃ 30min. 5min. 30min. 5min. 10 cycles	MIL-STD-202F:107D (1980) MIL-STD-750D:1051(1995) MIL-STD-883D:1010 (1991)
	Thermal Shock	105±5℃ -55℃±5℃ 10mins. 10mins. 10 cycles	MIL-STD-202F:107D(1980) MIL-STD-750D:1051(1995) MIL-STD-883D:1011 (1991)
	Solder Resistance	Tsol= 265 ± 5℃ Dwell Time= 10 ± 1 sec.	MIL-STD-202F:210A(1980) MIL-STD-750D:2031(1995)
	Solder Ability	Tsol: 250℃±5℃ Dwell Time =5±1 sec.	MIL-STD-202F:208D(1980) MIL-STD-750D:2026(1995) MIL-STD-883D:2003(1991) IEC 68 Part 2-20

- All Lamp/Holder LED product dimensions are in millimeters (inches).
- Tolerance is ±0.25mm(0.01") unless otherwise specified.

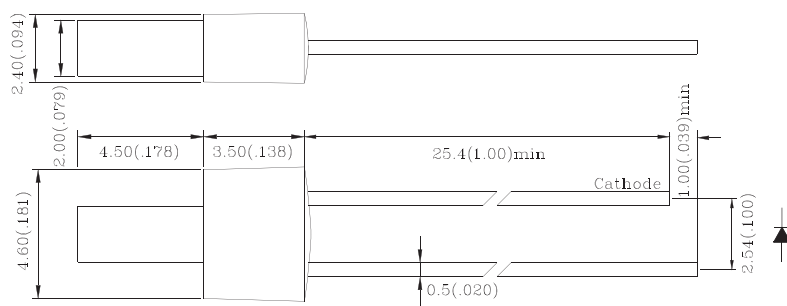
- Specifications are subject to change without notice.

L-204XX -1.8mm Dia. TOWER TYPE LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-204ED-E610	LJR2AD999	GaAsP	 Amber	Orange Diffused	605	2.1	2.6	30	60
L-204GD	LJR2GD998	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	15	60
L-204YD	LJR2YD997	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	12	60
L-204ED	LJR2ED996	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	25	60
L-204SRD	LJR2SRD995	GaAlInP	 Red	Red Diffused	640	1.8	2.2	40	60

L-214XX -2.0mm TOWER TYPE LED LAMP

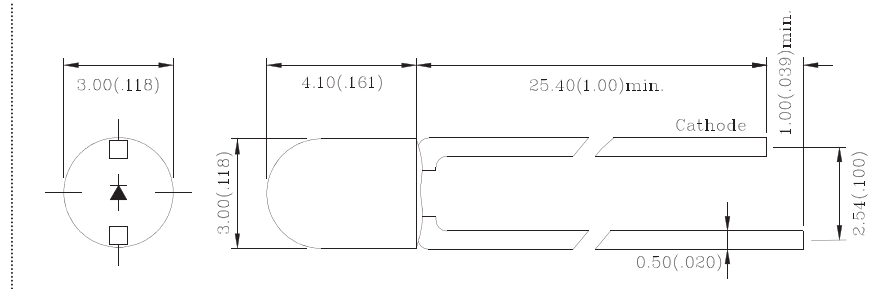


Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-214EC-610	LJR2AC994	GaAsP	 Amber	Water Clear	605	2.1	2.6	15	60
L-214GD	LJR2GD993	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	3	90
L-214YD	LJR2YD992	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	2	90
L-214ED	LJR2ED991	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	4	90
L-214SRD	LJR2SRD990	GaAlInP	 Red	Red Diffused	640	1.8	2.2	5	90
L-214LY1C	LJR2LY1C989	GaAlInP	 Super Yellow	Water Clear	587	2.1	2.6	120	60

LED LAMP

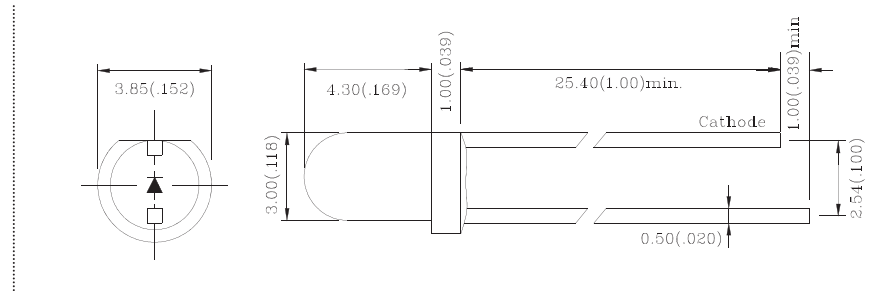
L-304XX -3.0mm Dia. LED LAMP

LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-304UB5C	LJR3UB5C988	GaInN	 Blue	Water Clear	470	3.2	3.8	2000	60
L-304GD	LJR3GD987	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	35	110
L-304YD	LJR3YD986	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	25	110
L-304ED	LJR3ED985	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	20	110
L-304SRD	LJR3SRD984	GaAlInP	 Red	Red Diffused	640	1.8	2.2	40	110

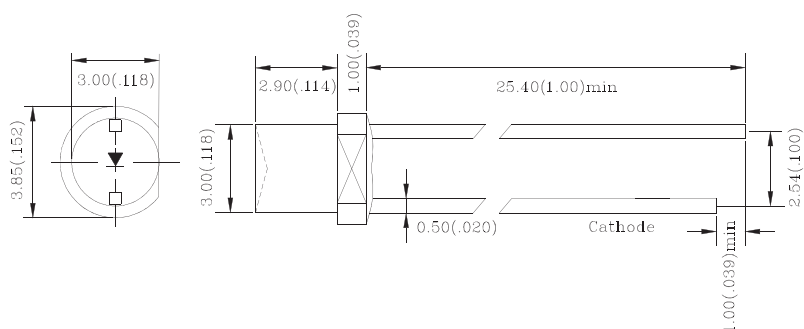
L-314XX -3.0mm Dia. LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-314LPG6C	LJR3LPG6C983	GaInN	 Ultra Green	Water Clear	525	3.2	3.8	5000	20
L-314GD	LJR3GD982	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	20	110
L-314YD	LJR3YD981	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	15	110
L-314ED	LJR3ED980	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	25	110
L-314VG3C	LJR3VG3C979	GaAlInP	 Super Yellow Green	Water Clear	572	2.0	2.6	600	20
L-314UB5C	LJR3UB5C978	GaInN	 Blue	Water Clear	470	3.2	3.8	3000	20

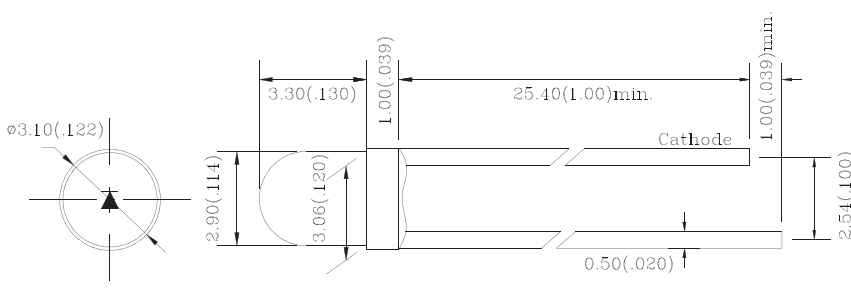
D-02 PARA LIGHT

L-334XX -3.0mm Dia. CYLINDRICAL BACKLIGHTING LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-334VY5C	LJR3VY5C977	GaAlInP	 Super Yellow	Water Clear	590	2.0	2.6	300	120
L-334GD	LJR3GD976	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	2	150
L-334YD	LJR3YD975	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	1.5	150
L-334ED	LJR3ED974	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	4	150
L-334HURC	LJR3HURC973	GaAlInP	 Super Red	Water Clear	633	2.0	2.6	55	120

L-354XX -3.0mm Dia. LED LAMP

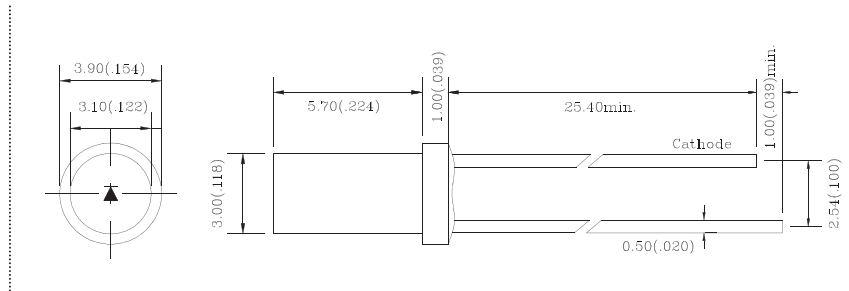


Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-354LY1D	LJR3LY1D972	GaAlInP	 Super Yellow	Yellow Diffused	587	2.0	2.6	70	110
L-354GD	LJR3GD971	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	20	110
L-354YD	LJR3YD970	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	15	110
L-354ED	LJR3ED969	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	25	110
L-354SRD	LJR3SRD968	GaAlInP	 Red	Red Diffused	640	1.8	2.2	50	110
L-354LPG6C	LJR3LPG6C967	GaInN	 Ultra Green	Water Clear	525	3.2	3.8	4000	30

LED LAMP

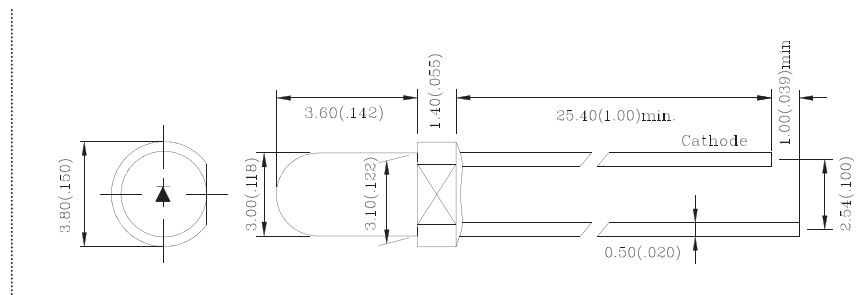
L-3N4XX -3.0mm Dia. CYLINDRICAL LED LAMP

LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-3N4UB5C	LJR3UB5C966	GaInN	 Blue	Water Clear	470	3.2	3.8	900	100
L-3N4GD	LJR3GD965	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	6	150
L-3N4YD	LJR3YD964	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	4	150
L-3N4ED	LJR3ED963	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	10	150
L-3N4SRD	LJR3SRD962	GaAlInP	 Red	Red Diffused	640	1.8	2.2	20	150

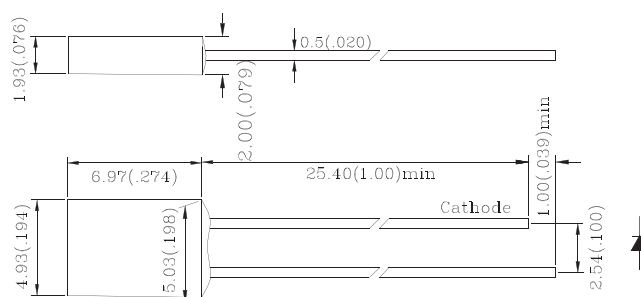
L-3U4XX -3.0mm Dia. LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-3U4LPG6C	LJR3LPG6C961	GaInN	 Ultra Green	Water Clear	525	3.2	3.8	4500	25
L-3U4GD	LJR3GD960	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	20	110
L-3U4YD	LJR3YD959	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	15	110
L-3U4ED	LJR3ED958	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	25	110
L-3U4VG3C	LJR3VG3C957	GaAlInP	 Super Yellow Green	Water Clear	572	2.0	2.6	440	25
L-3U4UB5C	LJR3UB5C956	GaInN	 Blue	Water Clear	470	3.2	3.8	2500	25

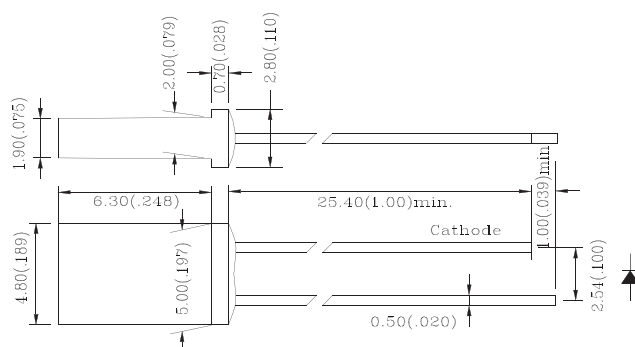
D-04 PARA LIGHT

L-403XX -2.0x5.0x7.0mm RECTANGULAR LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-403ED-E610	LJS5AD955	GaAsP	 Amber	Orange Diffused	605	2.1	2.6	8	120
L-403GD	LJS5GD954	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	6	120
L-403YD	LJS5YD953	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	5	120
L-403ED	LJS5ED952	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	7	120
L-403SRD	LJS5SRD951	GaAlInP	 Red	Red Diffused	640	1.8	2.2	15	120

L-413XX -2.0x5.0x7.0mm RECTANGULAR LED LAMP

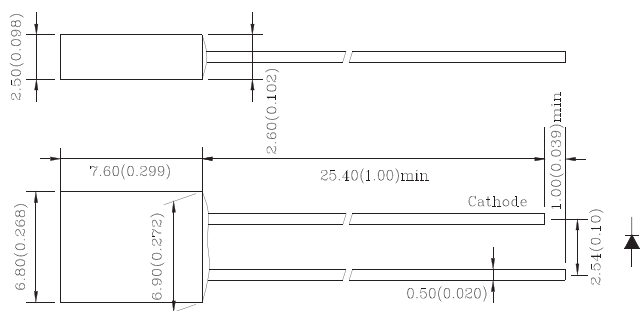


Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-413HURC	LJS5HURC950	GaAlInP	 Super Red	Water Clear	633	2.0	2.6	250	80
L-413GD	LJS5GD949	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	2.5	150
L-413YD	LJS5YD948	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	2.5	150
L-413ED	LJS5ED947	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	3	150
L-413SRD	LJS5SRD946	GaAlInP	 Red	Red Diffused	640	1.8	2.2	10	150
L-413VG3C	LJS5VG3C945	GaAlInP	 Super Yellow Green	Water Clear	572	2.0	2.6	100	80

LED LAMP

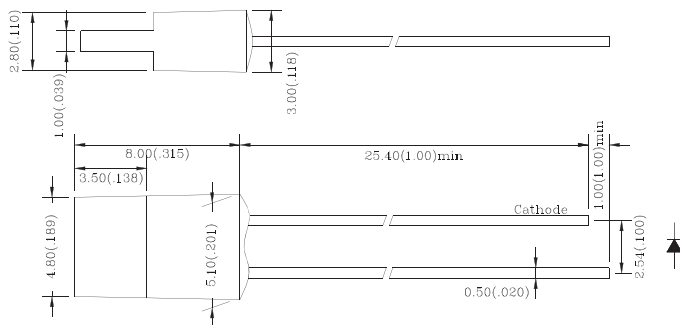
L-423XX -2.5x7.0x7.5mm RECTANGULAR LED LAMP

LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-423ED-E610	LJS7AD944	GaAsP	 Amber	Orange Diffused	605	2.1	2.6	6	110
L-423GD	LJS7GD943	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	6	110
L-423YD	LJS7YD942	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	5	110
L-423ED	LJS7ED941	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	7	110
L-423SRD	LJS7SRD940	GaAlInP	 Red	Red Diffused	640	1.8	2.2	18	110

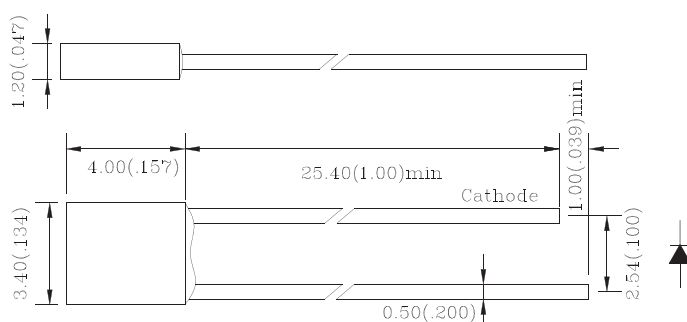
L-443XX -1.0x5.0x8.0mm RECTANGULAR LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-443ED-E610	LJS4AD939	GaAsP	 Amber	Orange Diffused	620	2.1	2.6	6	120
L-443GD	LJS4GD938	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	6	120
L-443YD	LJS4YD937	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	5	120
L-443ED	LJS4ED936	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	7	120
L-443SRD	LJS4SRD935	GaAlInP	 Red	Red Diffused	640	1.8	2.2	15	120

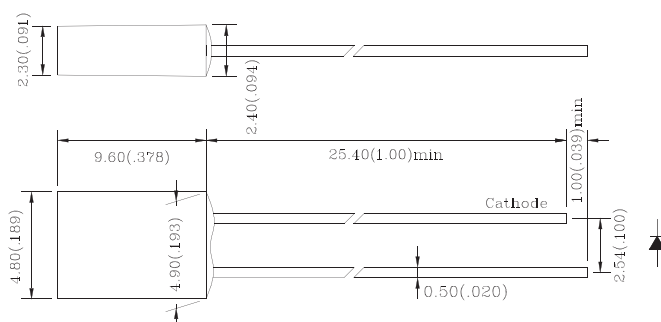
D-06 PARA LIGHT

L-454XX -1.2x3.4x4.0mm RECTANGULAR LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-454ED-E610	LJS3AD934	GaAsP	 Amber	Orange Diffused	605	2.1	2.6	3	150
L-454GD	LJS3GD933	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	2.5	150
L-454YD	LJS3YD932	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	2	150
L-454ED	LJS3ED931	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	3	150
L-454SRD	LJS3SRD930	GaAlInP	 Red	Red Diffused	640	1.8	2.2	10	150

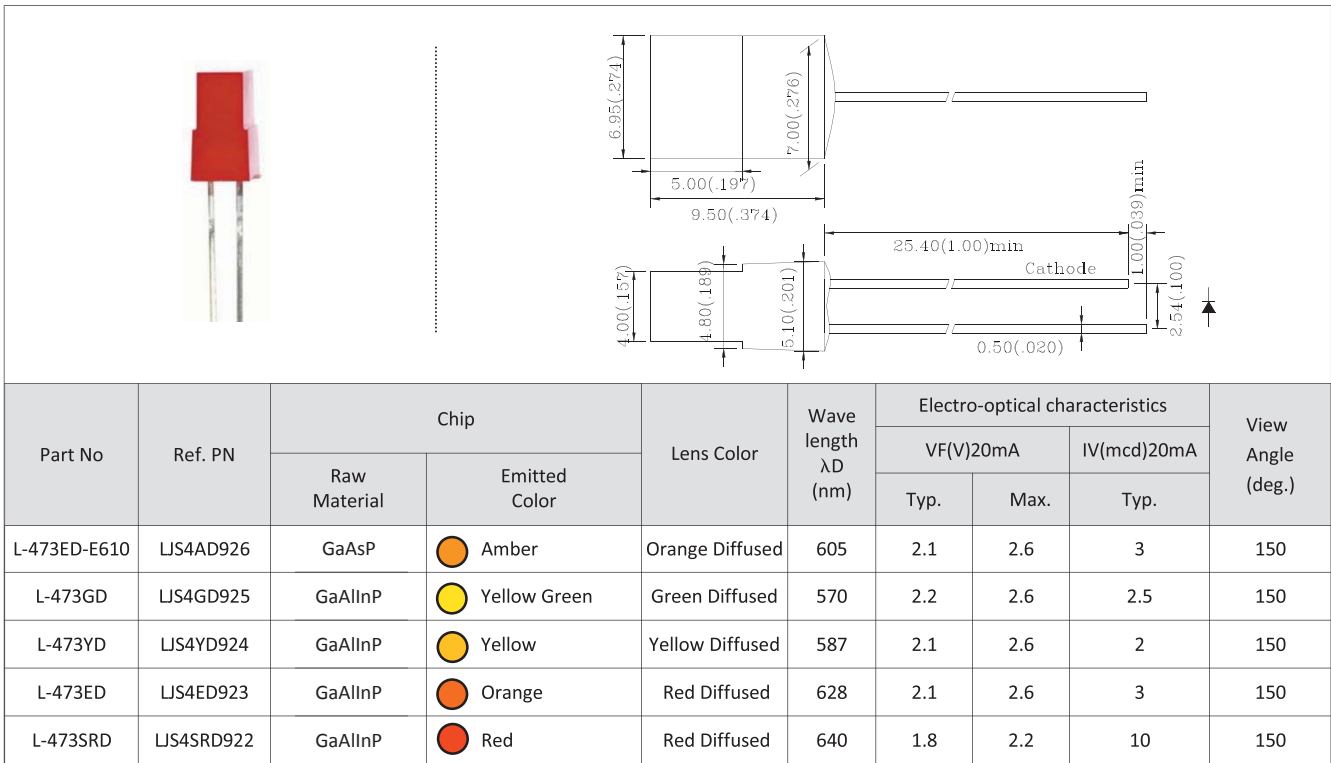
L-463XX -2.0x4.8x9.6mm RECTANGULAR LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-463ED-E610	LJS5AD929	GaAsP	 Amber	Orange Diffused	605	2.1	2.6	6	120
L-463GD	LJS5GD928	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	6	120
L-463YD	LJS5YD927	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	5	120
L-463ED	LJS5ED926	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	7	120
L-463SRD	LJS5SRD925	GaAlInP	 Red	Red Diffused	640	1.8	2.2	15	120

LED LAMP

L-473XX -4.0x7.0x9.5mm RECTANGULAR LED LAMP

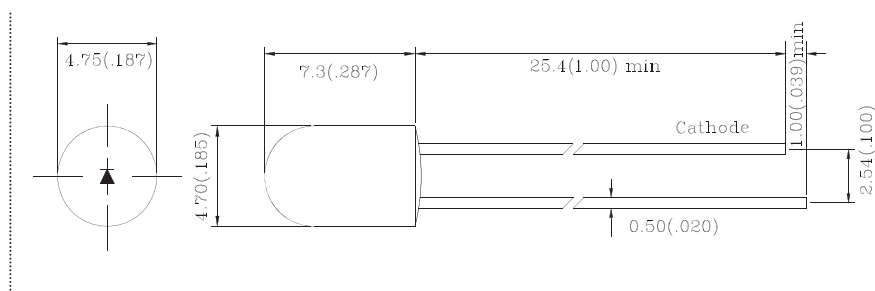


L-4L3XX -2.0x4.0x5.0mm RECTANGULAR LED LAMP



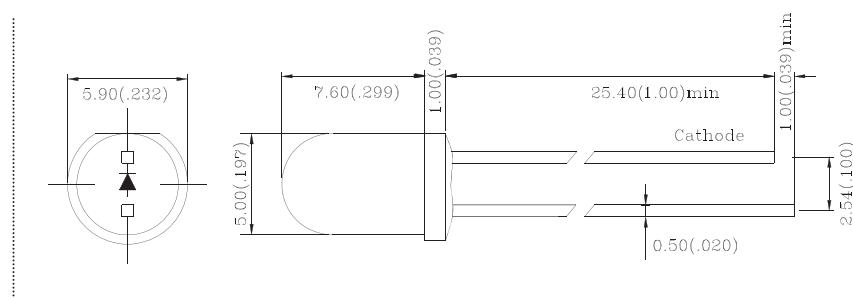
D-08 PARA LIGHT

L-503XX -5.0mm Dia. LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-503ED-E610	LJR5AD915	GaAsP	 Amber	Orange Diffused	605	2.1	2.6	20	110
L-503GD	LJR5GD914	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	20	110
L-503YD	LJR5YD913	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	15	110
L-503ED	LJR5ED912	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	20	110
L-503SRD	LJR5SRD911	GaAlInP	 Red	Red Diffused	640	1.8	2.2	40	110

L-513XX -5.0mm Dia. LED LAMP

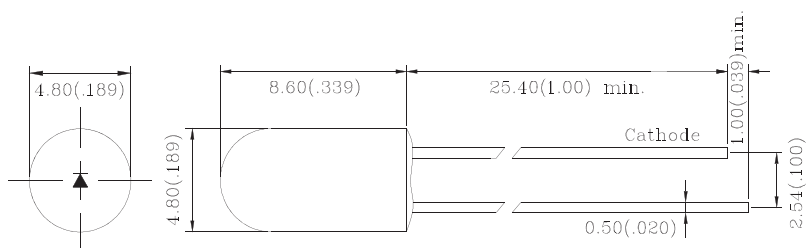


Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-513VE2C	LJR5VE2C910	GaAlInP	 Super Orange	Water Clear	626	2.1	2.6	4500	15
L-513VG3C	LJR5VG3C909	GaAlInP	 Super Yellow Green	Water Clear	572	2.2	2.6	1700	15
L-513VY5C	LJR5VY5C908	GaAlInP	 Super Yellow	Water Clear	587	2.1	2.6	3500	15
L-513VEAC	LJR5VEAC907	GaAlInP	 Super Orange	Water Clear	628	2.1	2.6	12000	15
L-5147LPG6C	LJR5LPG6C906	GaInN	 Ultra Green	Water Clear	525	3.2	3.8	9000	15

LED LAMP

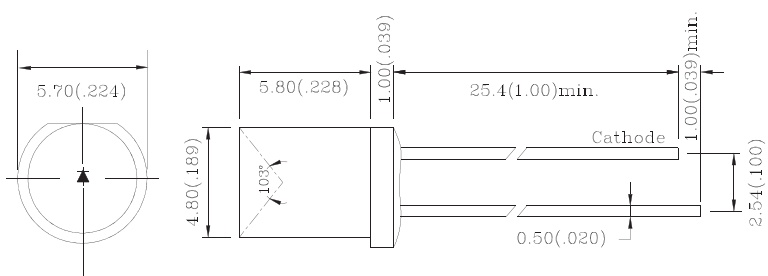
L-523XX -5.0mm Dia. LED LAMP

LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-523ED-E610	LJR5AD904	GaAsP	 Amber	Orange Diffused	605	2.1	2.6	20	110
L-523GD	LJR5GD903	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	20	110
L-523YD	LJR5YD902	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	15	110
L-523ED	LJR5ED901	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	20	110
L-523SRD	LJR5SRD900	GaAlInP	 Red	Red Diffused	640	1.8	2.2	40	110

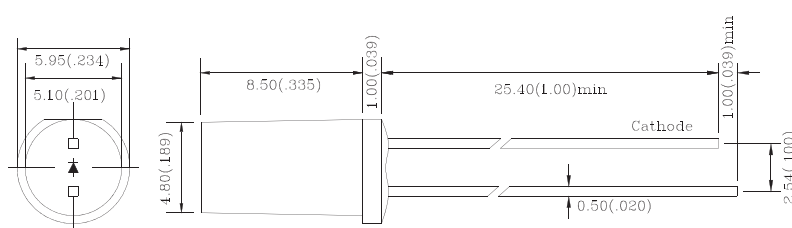
L-553XX -5.0mm Dia. CYLINDRICAL LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-553ED-E610	LJR5AD899	GaAsP	 Amber	Orange Diffused	605	2.1	2.6	3	150
L-553GD	LJR5GD898	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	1.2	150
L-553YD	LJR5YD897	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	1	150
L-553ED	LJR5ED896	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	3	150
L-553SRD	LJR5SRD895	GaAlInP	 Red	Red Diffused	640	1.8	2.2	3	150
L-5547UB5C	LJR5UB5C894	GaInN	 Blue	Water Clear	470	3.2	3.8	150	120

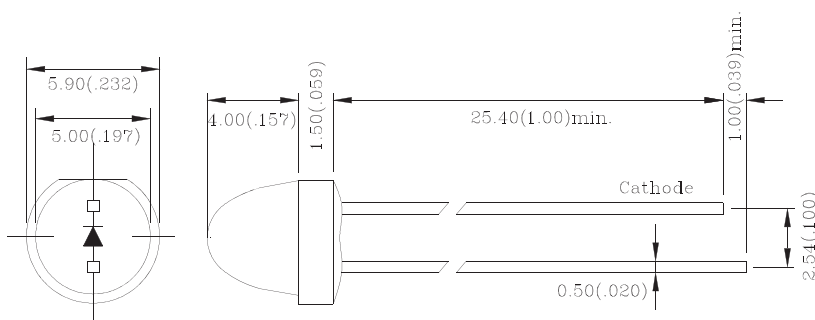
D-10 PARA LIGHT

L-573XX -5.0mm Dia. CYLINDRICAL LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-573ED-E610	LJR5AD893	GaAsP	 Amber	Orange Diffused	605	2.1	2.6	8	150
L-573GD	LJR5GD892	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	5	150
L-573YD	LJR5YD891	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	4	150
L-573ED	LJR5ED890	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	8	150
L-573SRD	LJR5SRD889	GaAlInP	 Red	Red Diffused	640	1.8	2.2	12	150

L-593XX -5.0mm Dia. LED LAMP

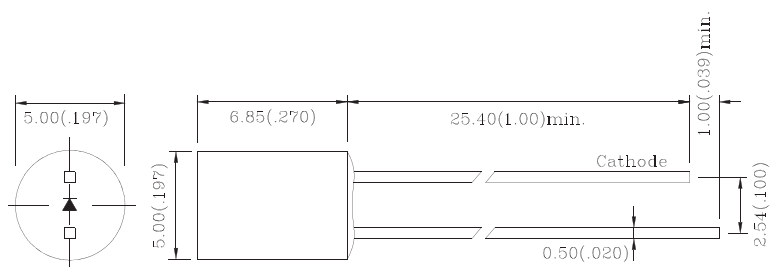


Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-593ED-E610	LJR5AD888	GaAsP	 Amber	Orange Diffused	605	2.1	2.6	25	100
L-593GD	LJR5GD887	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	20	100
L-593YD	LJR5YD886	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	15	100
L-593ED	LJR5ED885	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	25	100
L-593SRD	LJR5SRD884	GaAlInP	 Red	Red Diffused	640	1.8	2.2	40	100
L-5947UB5D	LJR5UB5D883	GaInN	 Blue	Blue Diffused	470	3.2	3.8	200	100

LED LAMP

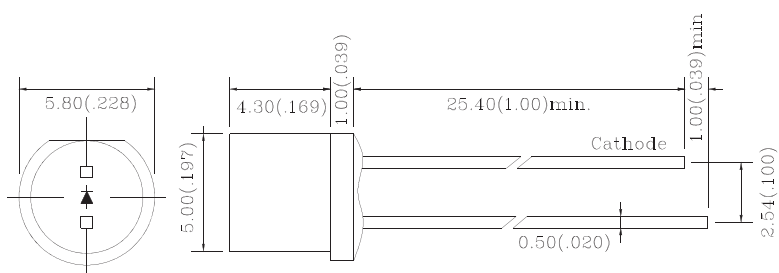
L-5C3XX -5.0mm Dia. CYLINDRICAL LED LAMP

LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-5C3VG3D	LJR5VG3D882	GaAlInP	 Super Yellow Green	Green Diffused	572	2.1	2.6	10	150
L-5C3GD	LJR5GD881	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	5	150
L-5C3YD	LJR5YD880	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	4	150
L-5C3ED	LJR5ED879	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	6	150
L-5C3SRD	LJR5SRD878	GaAlInP	 Red	Red Diffused	640	1.8	2.2	10	150

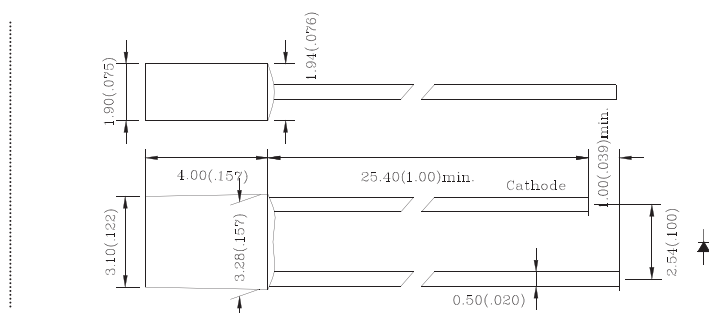
L-5N3XX -5.0mm Dia. CYLINDRICAL LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-5N3GD	LJR5GD874	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	5	150
L-5N3YD	LJR5YD873	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	4	150
L-5N3ED	LJR5ED872	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	6	150
L-5N3SRD	LJR5SR5D871	GaAlInP	 Red	Red Diffused	640	1.8	2.2	10	150
L-5N47LPG6C	LJR5LPG6C870	GaInN	 Ultra Green	Water Clear	525	3.2	3.8	1000	100
L-5N47UB5C	LJR5UB5C869	GaInN	 Blue	Water Clear	470	3.2	3.8	500	100

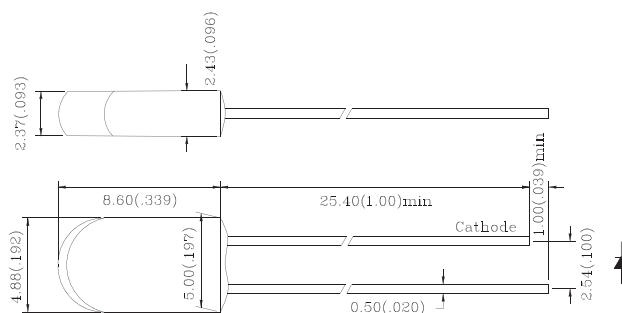
D-12 PARA LIGHT

L-604XX -1.9x3.1x4.0mm RECTANGULAR LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-604ED-E610	LJS3AD868	GaAsP	 Amber	Orange Diffused	605	2.1	2.6	3	150
L-604GD	LJS3GD867	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	2.5	150
L-604YD	LJS3YD866	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	2	150
L-604ED	LJS3ED865	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	3	150
L-604SRD	LJS3SRD864	GaAlInP	 Red	Red Diffused	640	1.8	2.2	10	150

L-614XX -2.4x4.9x8.6mm TOMBSTONE Type LED LAMP

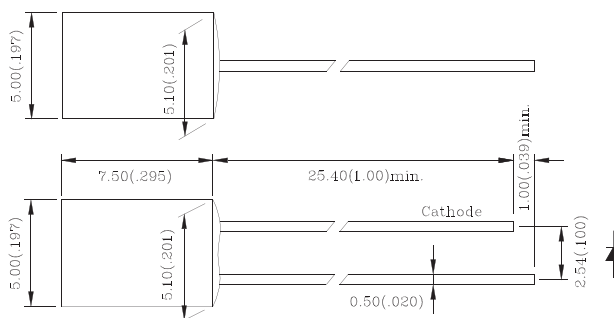


Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-614ED-610	LJS5AD863	GaAsP	 Amber	Orange Diffused	605	2.1	2.6	4	170
L-614GD	LJS5GD862	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	3	170
L-614YD	LJS5YD861	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	2	170
L-614ED	LJS5ED860	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	4	170
L-614SRD	LJS5SRD859	GaAlInP	 Red	Red Diffused	640	1.8	2.2	20	170
L-614LY1C	LJS5LY1C858	GaAlInP	 Super Yellow	Water Clear	587	2.1	2.6	120	120

LED LAMP

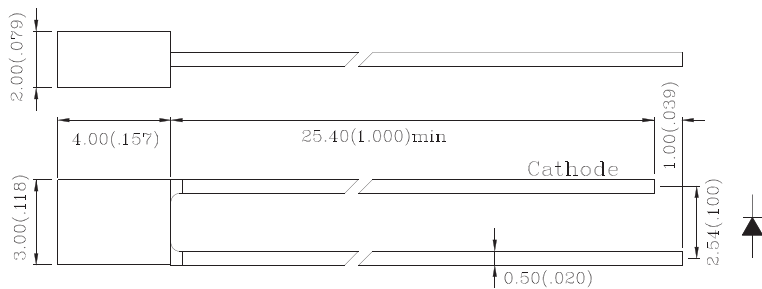
L-663XX -5.0x5.0x7.0mm RECTANGULAR LED LAMP

LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-663HURC	LJS4HURC857	GaAlInP	 Super Red	Water Clear	633	2.0	2.6	300	70
L-663GD	LJS4GD856	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	7	150
L-663YD	LJS4YD855	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	4	150
L-663ED	LJS4ED854	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	10	150
L-663SRD	LJS4SRD853	GaAlInP	 Red	Red Diffused	640	1.8	2.2	30	150

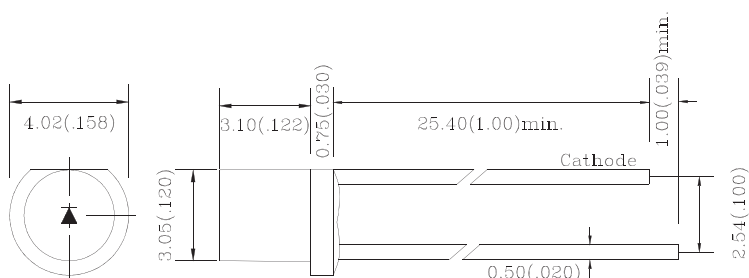
L-6U4XX -2.0x3.0x4.0mm RECTANGULAR LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-6U4ED-E610	LJS3AD852	GaAsP	 Amber	Orange Diffused	605	2.1	2.6	10	150
L-6U4GD	LJS3GD851	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	7	150
L-6U4YD	LJS3YD850	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	4	150
L-6U4ED	LJS3ED849	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	10	150
L-6U4SRD	LJS3SRD848	GaAlInP	 Red	Red Diffused	640	1.8	2.2	30	150
L-6U4VG3D	LJS3VG3D847	GaAlInP	 Super Yellow Green	Green Diffused	572	2.0	2.6	40	150

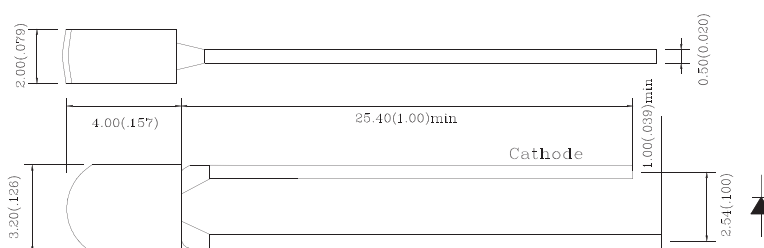
D-14 PARA LIGHT

L-6V4XX -3.1mm Dia CYLINDRICAL LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-6V4HURC	LJR3HURC846	GaAlInP	 Super Red	Water Clear	633	2.0	2.6	180	80
L-6V4GD	LJR3GD845	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	12	110
L-6V4YD	LJR3YD844	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	10	110
L-6V4ED	LJR3ED843	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	15	110
L-6V4VG3C	LJR3VG3C842	GaAlInP	 Super Yellow Green	Water Clear	572	2.2	2.6	200	80

L-6X4XX -2.0x3.2x4.0mm RECTANGULAR LED LAMP

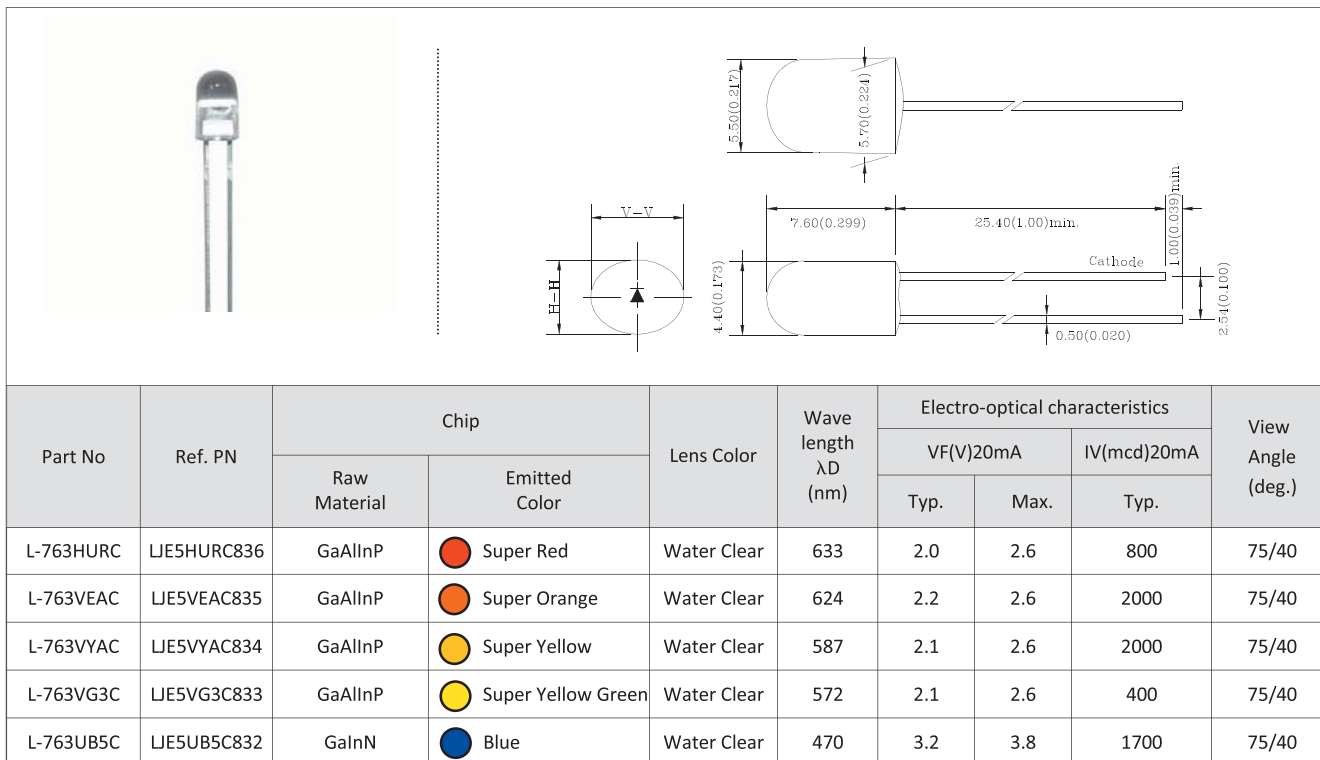


Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-6X4ED-610	LJS4AD841	GaAsP	 Amber	Orange Diffused	605	2.1	2.6	16	150
L-6X4GD	LJS4GD840	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	15	150
L-6X4YD	LJS4YD839	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	10	150
L-6X4ED	LJS4ED838	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	18	150
L-6X4SRD	LJS4SRD837	GaAlInP	 Red	Red Diffused	640	1.8	2.2	30	150

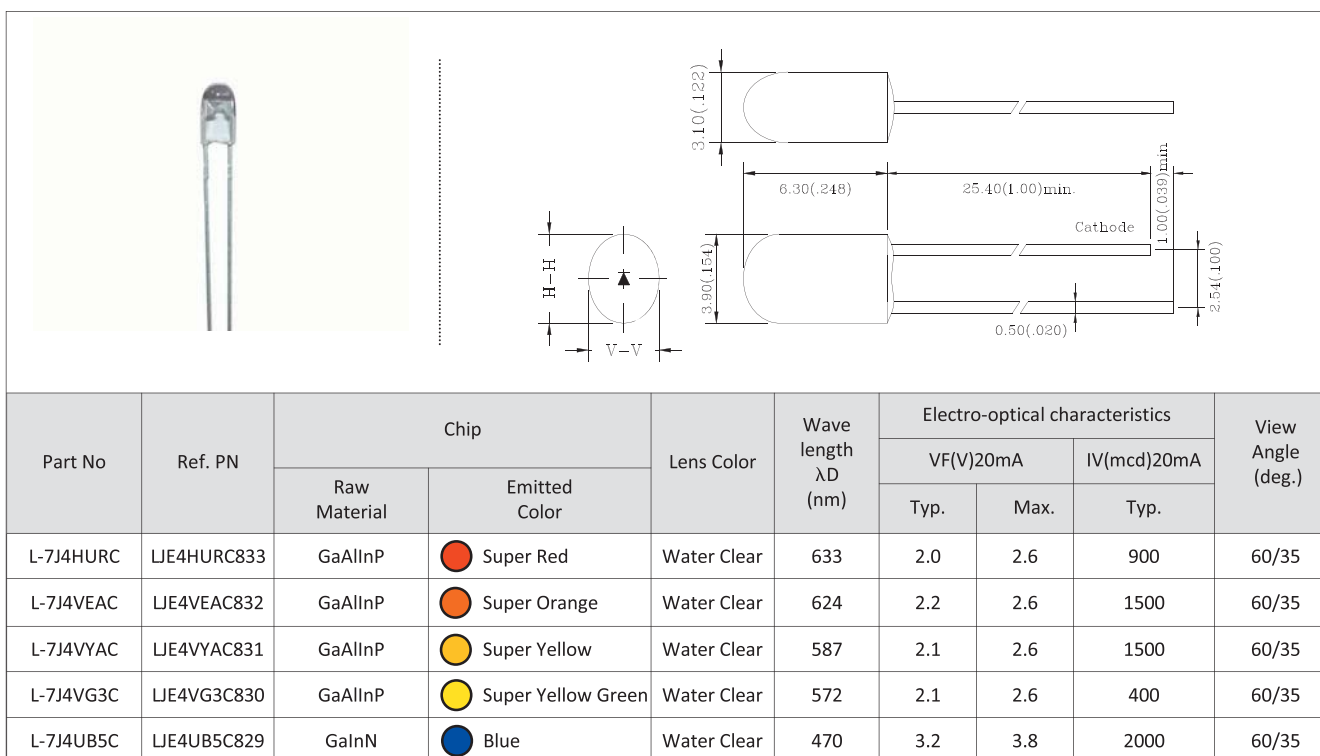
LED LAMP

L-763XX -5.5x4.0mm Dia. ELLIPSE LED LAMP

LED LAMP

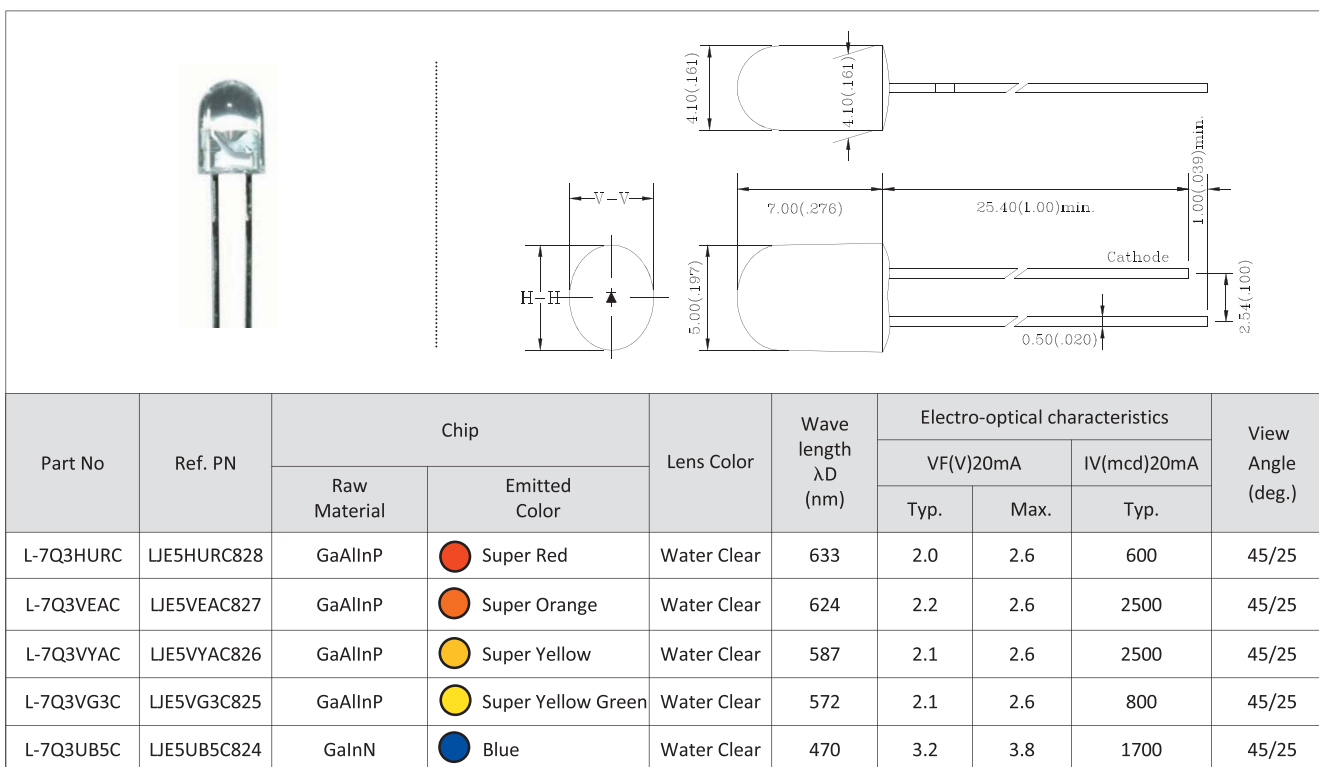


L-7J4XX -3.9x3.1mm Dia. ELLIPSE LED LAMP

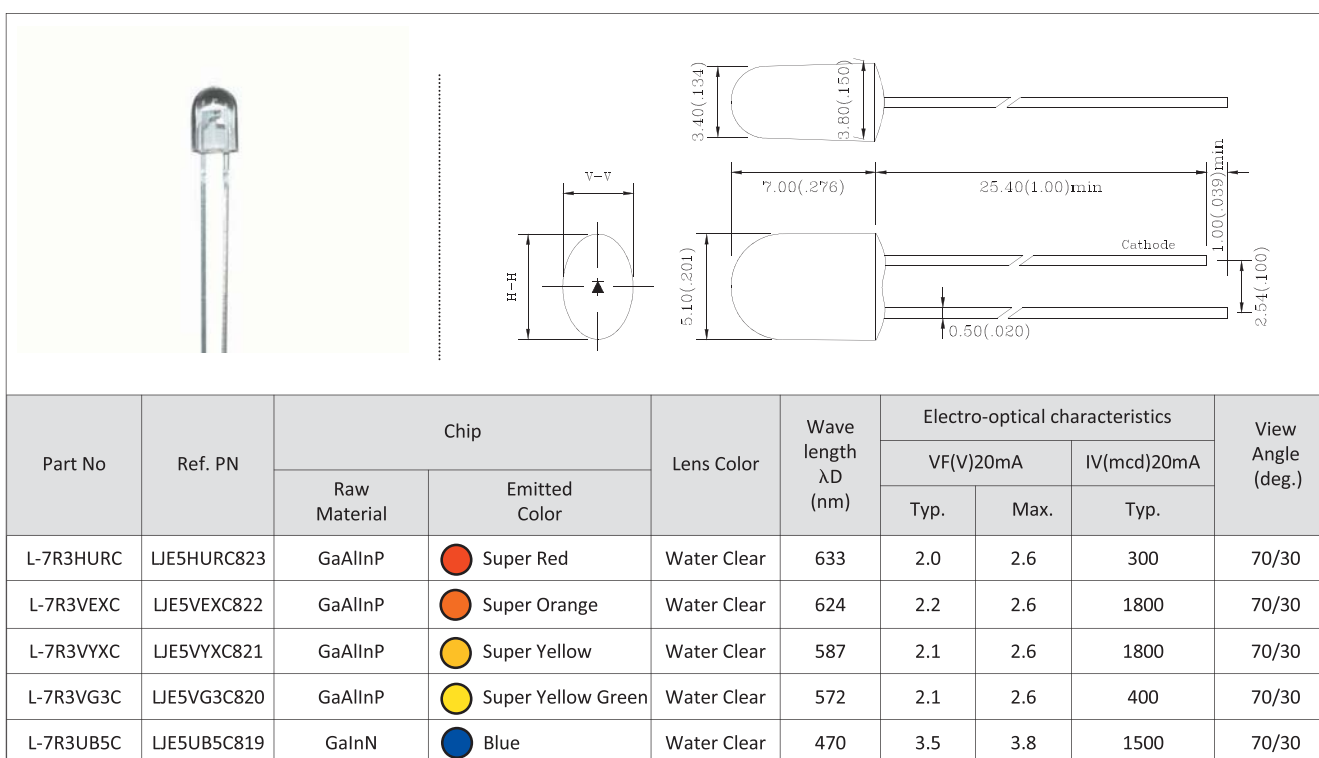


D-16 PARA LIGHT

L-7Q3XX -5.0x4.0mm Dia. ELLIPSE LED LAMP



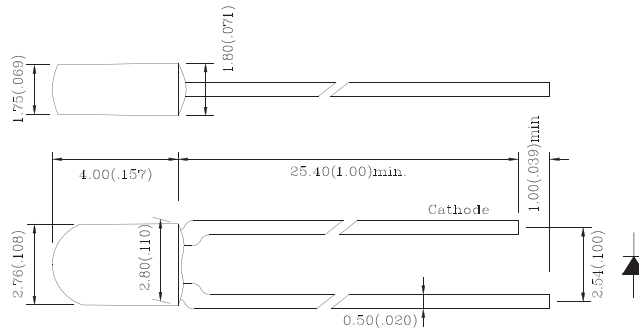
L-7R3XX -5.1x3.4mm Dia. ELLIPSE LED LAMP



LED LAMP

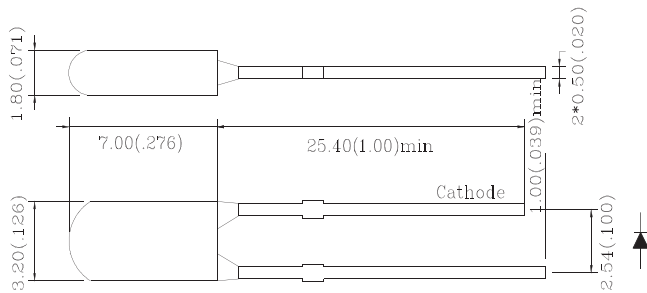
L-7T4XX -1.8x2.8x4.0mm RECTANGULAR LED LAMP

LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-7T4HURC	LJS3HURC818	GaAlInP	 Super Red	Water Clear	633	2.0	2.6	300	100
L-7T4GD	LJS3GD817	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	10	120
L-7T4YD	LJS3YD816	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	6	120
L-7T4ED	LJS3ED815	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	15	120
L-7T4SRD	LJS3SRD814	GaAlInP	 Red	Red Diffused	640	1.8	2.2	30	120

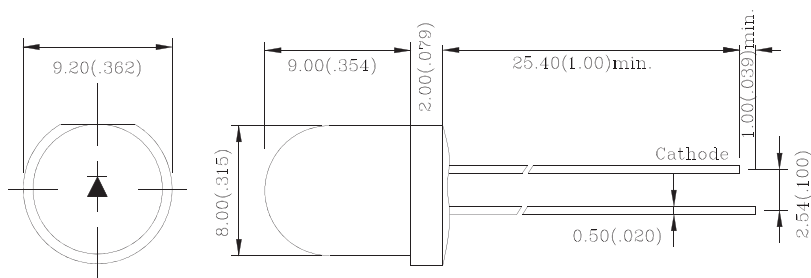
L-7X4XX -2.0x3.2x7.0mm RECTANGULAR LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-7X4ED-E610	LJS3AD813	GaAsP	 Amber	Orange Diffused	605	2.1	2.6	10	150
L-7X4GD	LJS3GD812	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	7	150
L-7X4YD	LJS3YD811	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	4	150
L-7X4ED	LJS3ED810	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	10	150
L-7X4SRD	LJS3SRD809	GaAlInP	 Red	Red Diffused	640	1.8	2.2	25	150
L-7X4VG3D	LJS3VG3D808	GaAlInP	 Super Yellow Green	Green Diffused	572	2.0	2.6	25	150

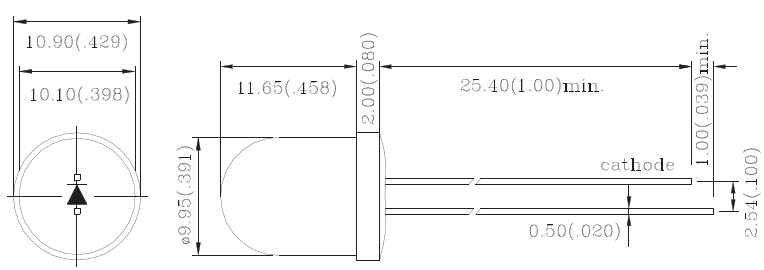
D-18 PARA LIGHT

L-813XX -8.0mm Dia. LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-813HURC	LJR8HURC807	GaAlInP	 Super Red	Water Clear	633	2.0	2.6	800	40
L-813GD	LJR8GD806	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	5	150
L-813YD	LJR8YD805	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	3	150
L-813ED	LJR8ED804	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	10	150
L-813SRD	LJR8SRD803	GaAlInP	 Red	Red Diffused	640	1.8	2.2	30	150

L-833XX -10.0mm Dia. LED LAMP

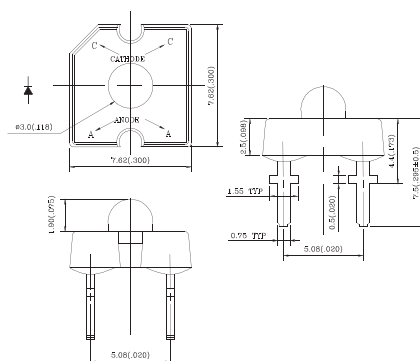


Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-833HURC	LJRAHURC802	GaAlInP	 Super Red	Water Clear	633	2.0	2.6	800	40
L-833GD	LJRAGD801	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	5	150
L-833YD	LJRAYD800	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	3	150
L-833ED	LJRAED799	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	10	150
L-833SRD	LJRASRD798	GaAlInP	 Red	Red Diffused	640	1.8	2.2	30	150

LED LAMP

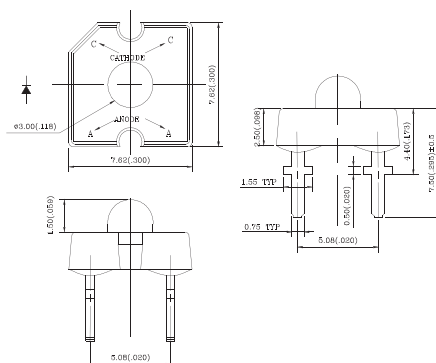
L-9352XX -HIGH POWER LED LAMP

LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-9352HURC	LJF3HURC797	GaAlInP	 Super Red	Water Clear	633	2.0	2.6	1500	40
L-9352VEAC	LJF3VEAC796	GaAlInP	 Super Orange	Water Clear	570	2.2	2.6	2500	40
L-9352VYAC	LJF3VYAC795	GaAlInP	 Super Yellow	Water Clear	587	2.1	2.6	2500	40
L-9352LPG6C	LJF3LPG5C794	GaInN	 Super Green	Water Clear	628	2.1	2.6	3000	40
L-9352UB5C	LJF3UB5C793	GaInN	 Blue	Water Clear	470	3.5	3.8	1500	40

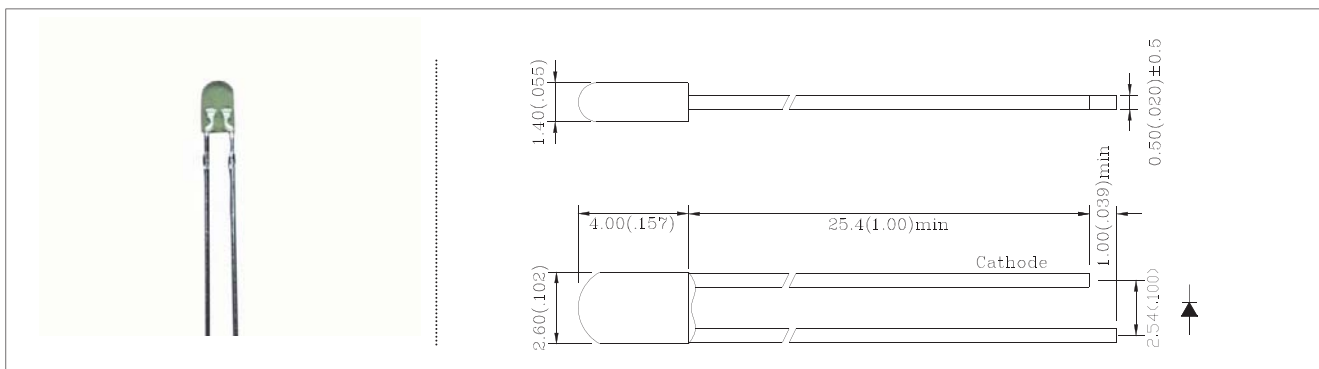
L-9452XX - HIGH POWER LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-9452HURC	LJF3HURC792	GaAlInP	 Super Red	Water Clear	633	2.0	2.6	900	65
L-9452VEAC	LJF3VEAC791	GaAlInP	 Super Orange	Water Clear	570	2.2	2.6	2000	65
L-9452VYAC	LJF3VYAC790	GaAlInP	 Super Yellow	Water Clear	587	2.1	2.6	2000	65
L-9452LPG6C	LJF3LPG5C789	GaInN	 Super Green	Water Clear	628	2.1	2.6	2500	65
L-9452UB5C	LJF3UB5C788	GaInN	 Blue	Water Clear	470	3.5	3.8	1200	65

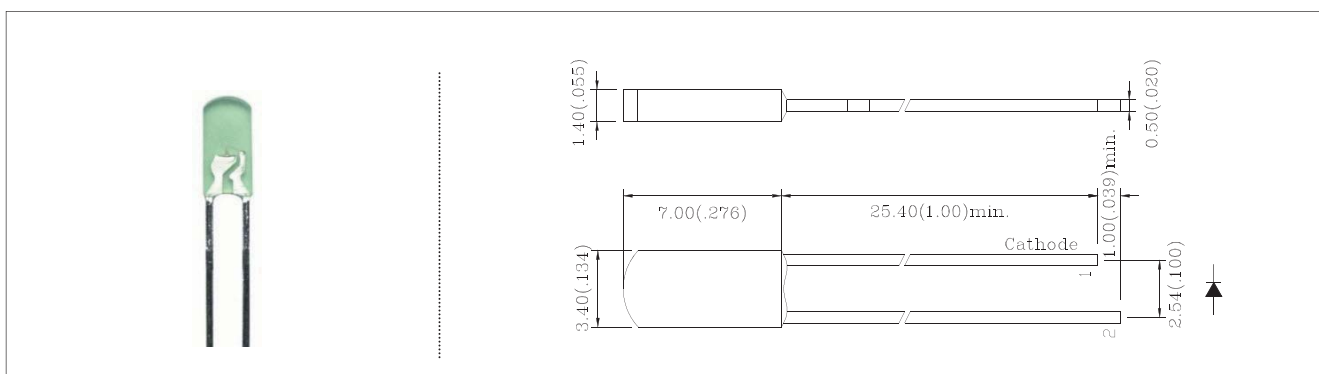
D-20 PARA LIGHT

L-CR4XX -1.4x2.6x4.0mm RECTANGULAR LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-CR4ED-E610	LJS3AD787	GaAsP	 Amber	Orange Diffused	605	2.1	2.6	15	110
L-CR4GD	LJS3GD786	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	12	110
L-CR4YD	LJS3YD785	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	10	110
L-CR4ED	LJS3ED784	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	15	110
L-CR4SRD	LJS3SRD783	GaAlInP	 Red	Red Diffused	640	1.8	2.2	30	110

L-CX4XX -1.4x3.4x7.0mm RECTANGULAR LED LAMP

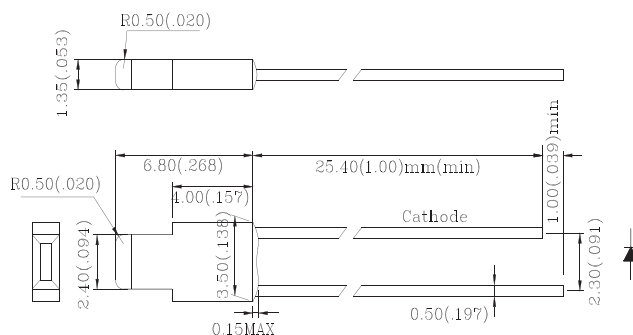


Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-CX4ED-610	LJS3AD782	GaAsP	 Amber	Orange Diffused	605	2.1	2.6	10	150
L-CX4GD	LJS3GD781	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	7	150
L-CX4YD	LJS3YD780	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	5	150
L-CX4ED	LJS3ED779	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	10	150
L-CX4SRD	LJS3SRD778	GaAlInP	 Red	Red Diffused	640	1.8	2.2	20	150

LED LAMP

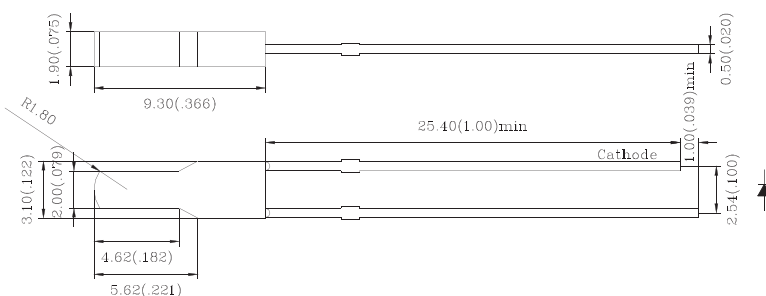
L-CD4XX -1.35x3.5x6.8mm RECTANGULAR LED LAMP

LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-CD41GD	LJS2GD777	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	15	140
L-CD41YD	LJS2YD776	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	10	140
L-CD41ED-E610	LJS2AD775	GaAsP	 Amber	Orange Diffused	605	2.1	2.6	18	140
L-CD41EW	LJS2EW774	GaAlInP	 Orange	White Diffused	622	2.1	2.6	20	140

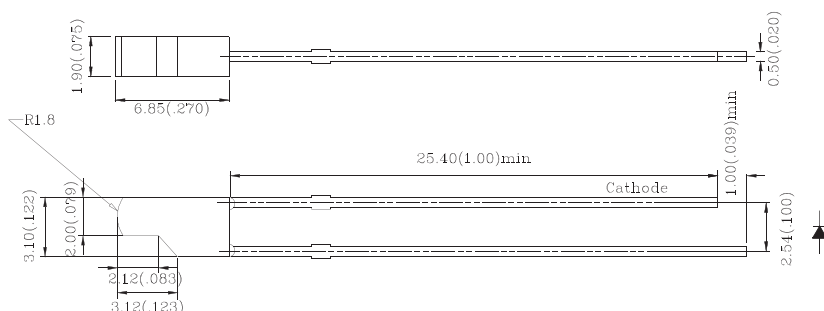
L-E14XX -1.9x2.0x9.3mm RECTANGULAR LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-E14GD	LJS3GD773	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	7	100
L-E14YD	LJS3YD772	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	5	100
L-E14ED-E610	LJS3AD771	GaAsP	 Amber	Orange Diffused	605	2.1	2.6	10	100
L-E14EW	LJS3EW770	GaAlInP	 Orange	White Diffused	622	2.1	2.6	12	100

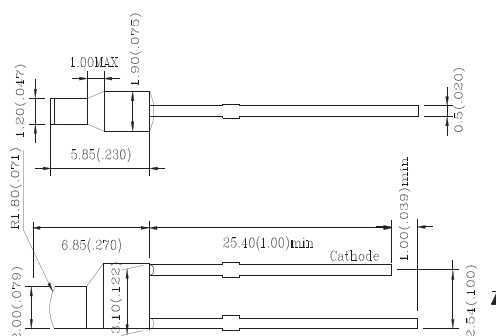
D-22 PARA LIGHT

L-E24XX -1.9x2.0x6.8mm RECTANGULAR LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-E24GD	LJS3GD699	GaAlInP	 Yellow Green	Green Diffused	570	2.1	2.6	7	100
L-E24YD	LJS3YD698	GaAlInP	 Yellow	Yellow Diffused	587	2.2	2.6	5	100
L-E24ED-E610	LJS3AD697	GaAsP	 Amber	Orange Diffused	605	2.1	2.6	9	100
L-E24ED	LJS3ED696	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	12	100

L-E44XX -1.2x2.0x6.0mm RECTANGULAR LED LAMP

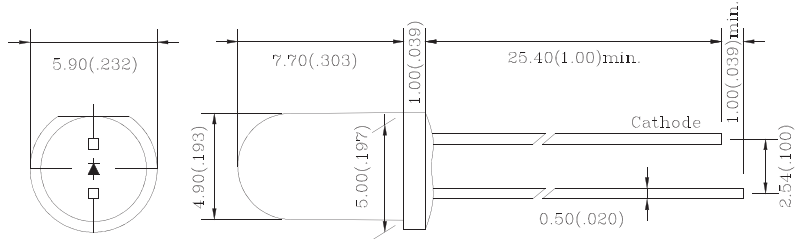


Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-E44GD	LJS2GD695	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	10	100
L-E44YD	LJS2YD694	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	8	100
L-E44ED-E610	LJS2AD693	GaAsP	 Amber	Orange Diffused	605	2.1	2.6	12	100
L-E44ED	LJS2ED692	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	15	100

LED LAMP

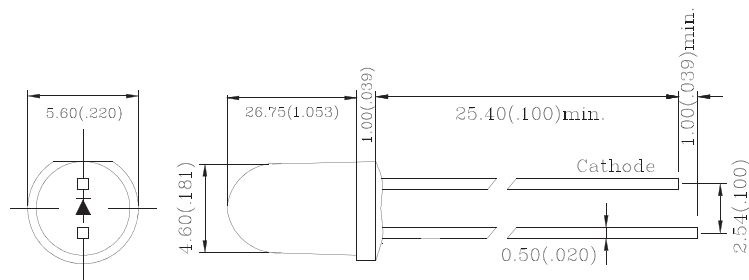
L-5T47XX -5.0mm Dia. LED LAMP

LED LAMP



Part No	Ref. PN	Chip		Lens Color	(X,Y)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-5T47UW5C	LJR5UW5C777	GaInN	 Cool White	Water Clear	X=0.26,Y=0.27	3.5	3.8	5000	15
L-5T47QWC	LJR5QWC776	GaInN	 Cool White	Water Clear	X=0.21,Y=0.34	3.5	3.8	4500	15
L-5T47UW5C-E	LJR5UW5C775	GaInN	 Warm White	Water Clear	X=0.44,Y=0.41	3.5	3.8	5000	15
L-5T47UW5C-BL	LJR5UW5C774	GaInN	 Cool White	Water Clear	X=0.20,Y=0.26	3.5	3.8	5000	15

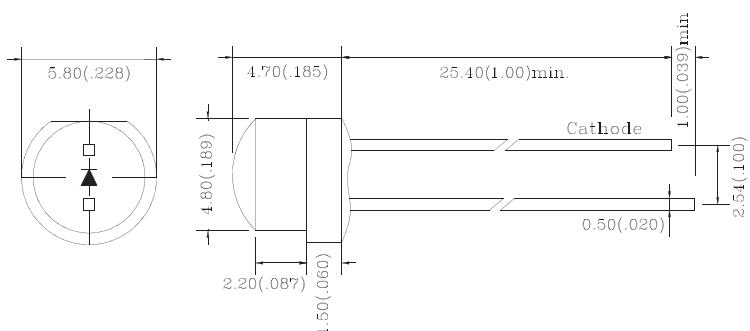
L-5347XX -5.0mm Dia. LED LAMP



Part No	Ref. PN	Chip		Lens Color	(X,Y)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-5347UW5C	LJR5UW5C773	GaInN	 Cool White	Water Clear	X=0.26,Y=0.27	3.5	3.8	5500	20
L-5347QWC	LJR5QWC772	GaInN	 Cool White	Water Clear	X=0.21,Y=0.34	3.5	3.8	5000	20
L-5347UW5C-E	LJR5UW5C771	GaInN	 Warm White	Water Clear	X=0.44,Y=0.41	3.5	3.8	5500	20
L-5347UW5C-BL	LJR5UW5C770	GaInN	 Cool White	Water Clear	X=0.20,Y=0.26	3.5	3.8	5500	20

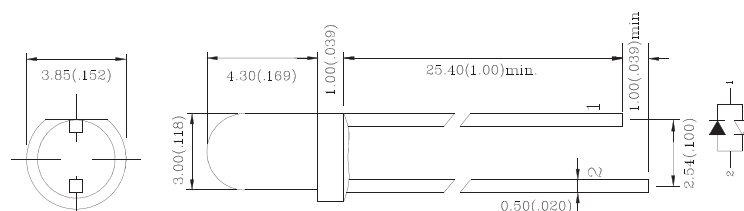
D-24 PARA LIGHT

L-5P47XX -5.0mm Dia. LED LAMP



Part No	Ref. PN	Chip		Lens Color	(X,Y)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-5P47UW5C	LJR5UW5C769	GaInN	 Cool White	Water Clear	X=0.26,Y=0.27	3.5	3.8	1500	90
L-5P47QWC	LJR5QWC768	GaInN	 Cool White	Water Clear	X=0.21,Y=0.34	3.5	3.8	1200	90
L-5P47UW5C-E	LJR5UW5C767	GaInN	 Warm White	Water Clear	X=0.44,Y=0.41	3.5	3.8	1500	90
L-5P47UW5C-BL	LJR5UW5C766	GaInN	 Cool White	Water Clear	X=0.20,Y=0.26	3.5	3.8	1500	90

L-317XX -3.0mm Dia LED. LAMP

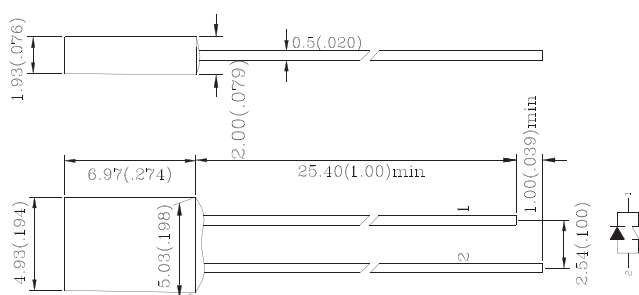


Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-317GYW	LJR3GYW765	GaAlInP	 Yellow Green	White Diffused	570	2.2	2.6	18	50
		GaAlInP	 Yellow		587	2.0	2.6	10	50
L-317EGW	LJR3EGW764	GaAlInP	 Orange	White Diffused	622	2.1	2.6	20	50
		GaAlInP	 Yellow Green		570	2.2	2.6	18	50
L-317SRVG3W	LJR3SRVG3W763	GaAlInP	 Red	White Diffused	645	1.8	2.6	30	50
		GaAlInP	 Super Yellow Green		572	2.0	2.6	25	50

LED LAMP

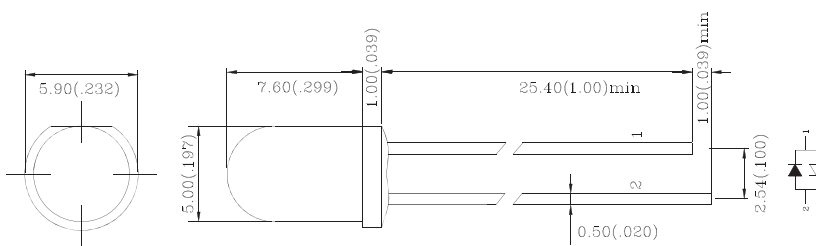
L-407XX -2.0x5.0x7.0mm RECTANGULAR LED LAMP

LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-407GYW	LJS5GYW762	GaAlInP	 Yellow Green	White Diffused	570	2.2	2.6	6	120
		GaAlInP	 Yellow		587	2.0	2.6	5	120
L-407EGW	LJS5EGW761	GaAlInP	 Orange	White Diffused	622	2.1	2.6	7	120
		GaAlInP	 Yellow Green		570	2.2	2.6	6	120

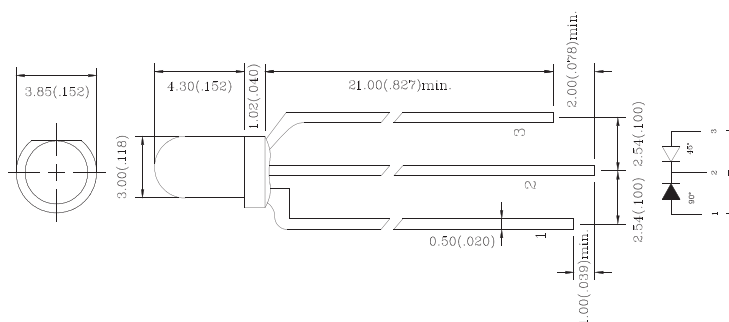
L-517XX -5.0mm Dia. LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-517GYW	LJR5GYW760	GaAlInP	 Yellow Green	White Diffused	570	2.2	2.6	15	120
		GaAlInP	 Yellow		587	2.0	2.6	10	120
L-517EGW	LJR5EGW759	GaAlInP	 Orange	White Diffused	622	2.1	2.6	20	120
		GaAlInP	 Yellow Green		570	2.2	2.6	15	120
L-517UB5LY5W	LJR5UB5LY5W758	GaInN	 Blue	White Diffused	470	3.5	3.8	400	120
		GaAlInP	 Super Yellow		592	2.1	2.6	300	120

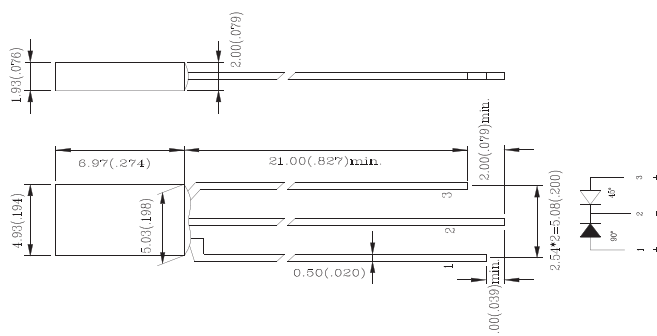
D-26 PARA LIGHT

L-319XX -3.0mm Dia. LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-319GYW	LJR3GYW757	GaAlInP	 Yellow Green	White Diffused	570	2.2	2.6	18	60
		GaAlInP	 Yellow		587	2.0	2.6	15	60
L-319EGW	LJR3EGW756	GaAlInP	 Orange	White Diffused	622	2.1	2.6	30	60
		GaAlInP	 Yellow Green		570	2.2	2.6	18	60

L-409XX -2.0x5.0x7.0mm RECTANGULAR LED LAMP

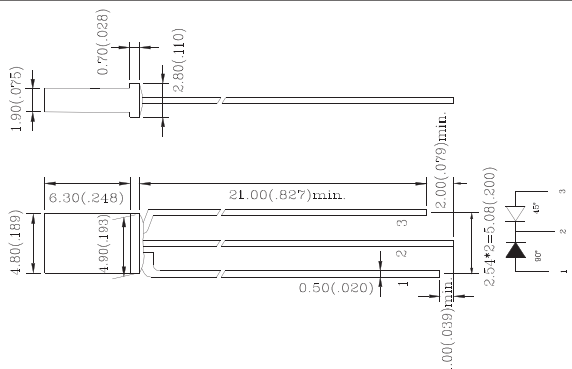


Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-409GYW	LJS5GYW755	GaAlInP	 Yellow Green	White Diffused	570	2.2	2.6	6	120
		GaAlInP	 Yellow		587	2.0	2.6	5	120
L-409EGW	LJS5EGW754	GaAlInP	 Orange	White Diffused	622	2.1	2.6	7	120
		GaAlInP	 Yellow Green		570	2.2	2.6	6	120
L-409UB5HURW	LJS5UB5HURW753	GaInN	 Blue	White Diffused	470	3.5	3.8	50	120
		GaAlInP	 Super Red		633	2.0	2.6	40	120

LED LAMP

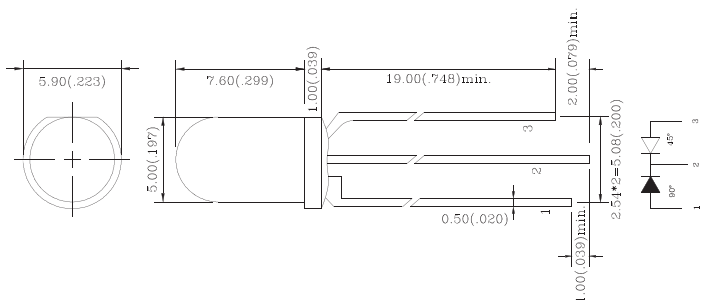
L-419XX -2.0x5.0x7.0mm RECTANGULAR LED LAMP

LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-419GYW	LJS5GYW752	GaAlInP	 Yellow Green	White Diffused	570	2.2	2.6	6	120
		GaAlInP	 Yellow		587	2.0	2.6	5	120
L-419EGW	LJS5EGW751	GaAlInP	 Orange	White Diffused	622	2.1	2.6	8	120
		GaAlInP	 Yellow Green		570	2.2	2.6	6	120

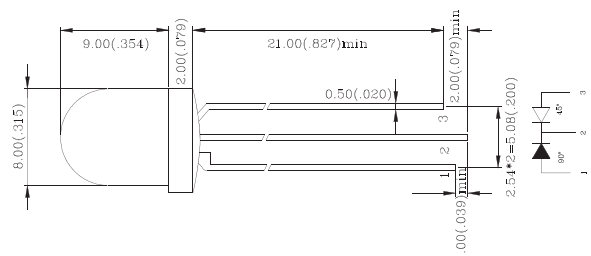
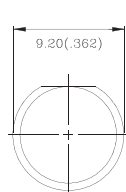
L-519XX -5.0mm Dia. LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-519GYW	LJR5GYW750	GaAlInP	 Yellow Green	White Diffused	570	2.2	2.6	10	120
		GaAlInP	 Yellow		587	2.0	2.6	7	120
L-519EGW	LJR5EGW749	GaAlInP	 Orange	White Diffused	622	2.1	2.6	15	120
		GaAlInP	 Yellow Green		570	2.2	2.6	10	120
L-519EYW	LJR5EYW748	GaAlInP	 Orange	White Diffused	622	2.1	2.6	15	120
		GaAlInP	 Yellow		587	2.0	2.6	7	120

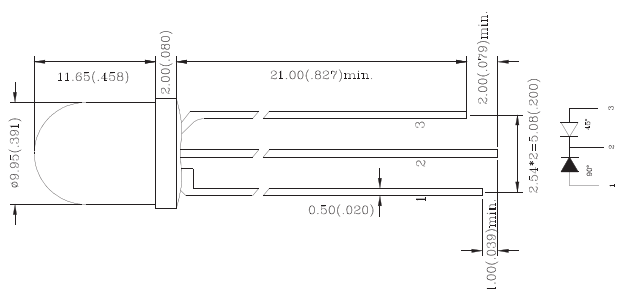
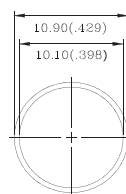
D-28 PARA LIGHT

L-819XX -8.0mm Dia. LED LAMP



Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-819GYW	LJR8GYW747	GaAlInP	 Yellow Green	White Diffused	570	2.2	2.6	15	140
		GaAlInP	 Yellow		587	2.0	2.6	12	140
L-819EGW	LJR8EGW746	GaAlInP	 Orange	White Diffused	622	2.1	2.6	20	140
		GaAlInP	 Yellow Green		570	2.2	2.6	15	140

L-839XX -10.0mm Dia. LED LAMP



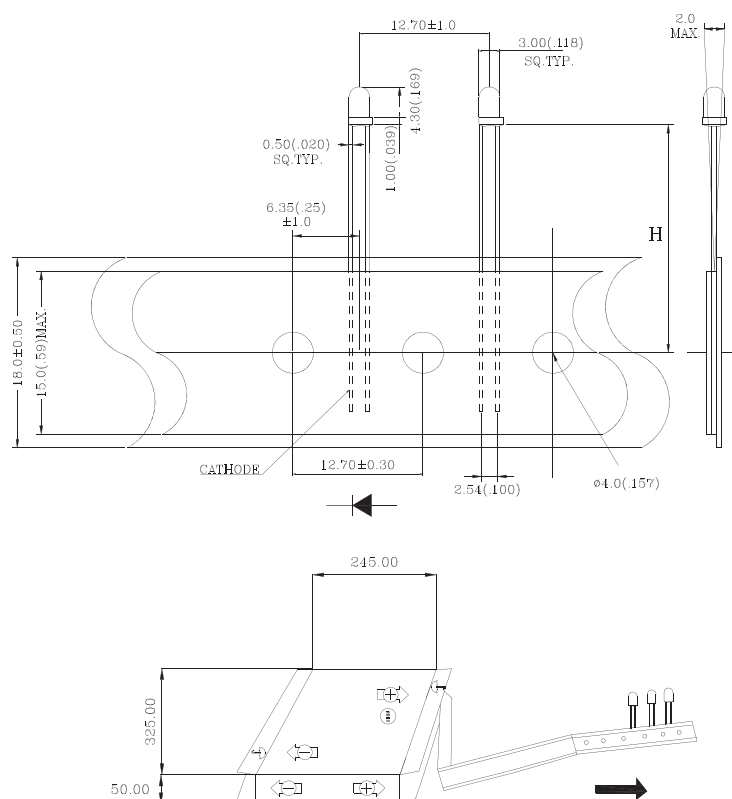
Part No	Ref. PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-839GYW	LJR8GYW745	GaAlInP	 Yellow Green	White Diffused	570	2.2	2.6	10	120
		GaAlInP	 Yellow		587	2.0	2.6	7	120
L-839EGW	LJR8EGW744	GaAlInP	 Orange	White Diffused	622	2.1	2.6	15	120
		GaAlInP	 Yellow Green		570	2.2	2.6	10	120
L-839EYW	LJR8EYW743	GaAlInP	 Orange	White Diffused	622	2.1	2.6	15	120
		GaAlInP	 Super Yellow		587	2.0	2.6	7	120

LED LAMP

L-314XXX-TBSH -3.0mm Dia. LED LAMP

LED LAMP

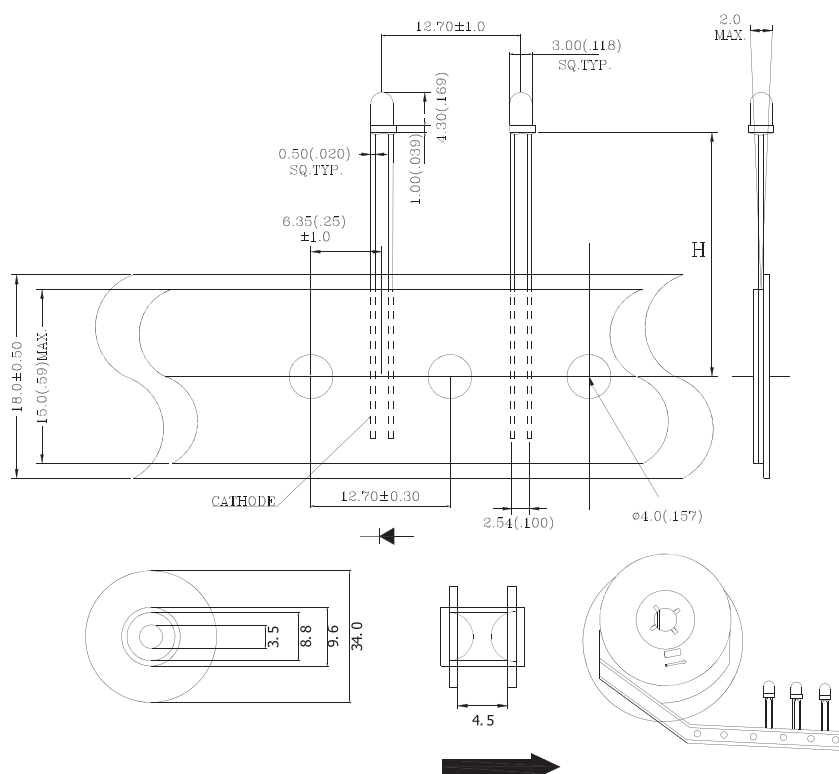
Part NO	H
L-314XX-TBS180	18.0mm
L-314XX-TBS190	19.0mm
L-314XX-TBS200	20.0mm
L-314XX-TBS220	22.0mm
L-314XX-TBS240	24.0mm



Part No	Ref.PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd) 20mA	
						Typ.	Max.	Typ.	
L-314GD-TBSH	LJR3GD742	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	20	110
L-314YD-TBSH	LJR3YD741	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	15	110
L-314ED-TBSH	LJR3ED740	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	25	110
L-314VG3C-TBSH	LJR3VG3C739	GaAlInP	 Super Yellow Green	Water Clear	572	2.0	2.6	600	20
L-314UB5C-TBSH	LJR3UB5C738	GaInN	 Blue	Water Clear	470	3.5	3.8	3000	20

L-314XXX-TRSH -3.0mm Dia. LED LAMP

Part NO	H
L-314XX-TRS180	18.0mm
L-314XX-TRS190	19.0mm
L-314XX-TRS200	20.0mm
L-314XX-TRS220	22.0mm
L-314XX-TRS240	24.0mm



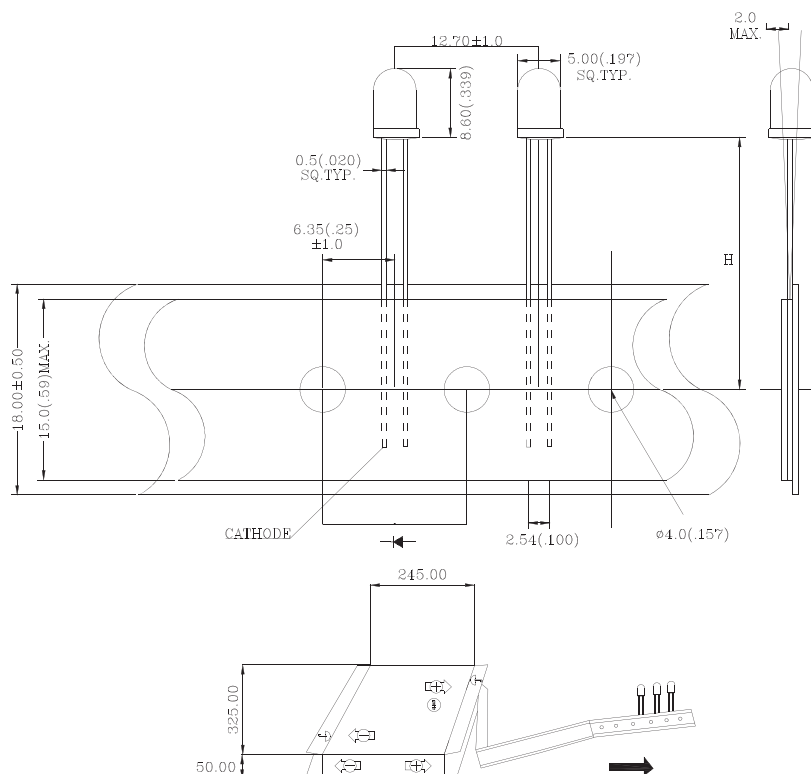
Part No	Ref.PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd) 20mA	
						Typ.	Max.	Typ.	
L-314GD-TRSH	LJR3GD737	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	20	110
L-314YD-TRSH	LJR3YD736	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	15	110
L-314ED-TRSH	LJR3ED735	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	25	110
L-314VG3C-TRSH	LJR3VG3C734	GaAlInP	 Super Yellow Green	Water Clear	572	2.0	2.6	600	20
L-314UB5C-TRSH	LJR3UB5C733	GaInN	 Blue	Water Clear	470	3.5	3.8	3000	20

LED LAMP

L-513XXX-TBSH -5.0mm Dia. LED LAMP

LED LAMP

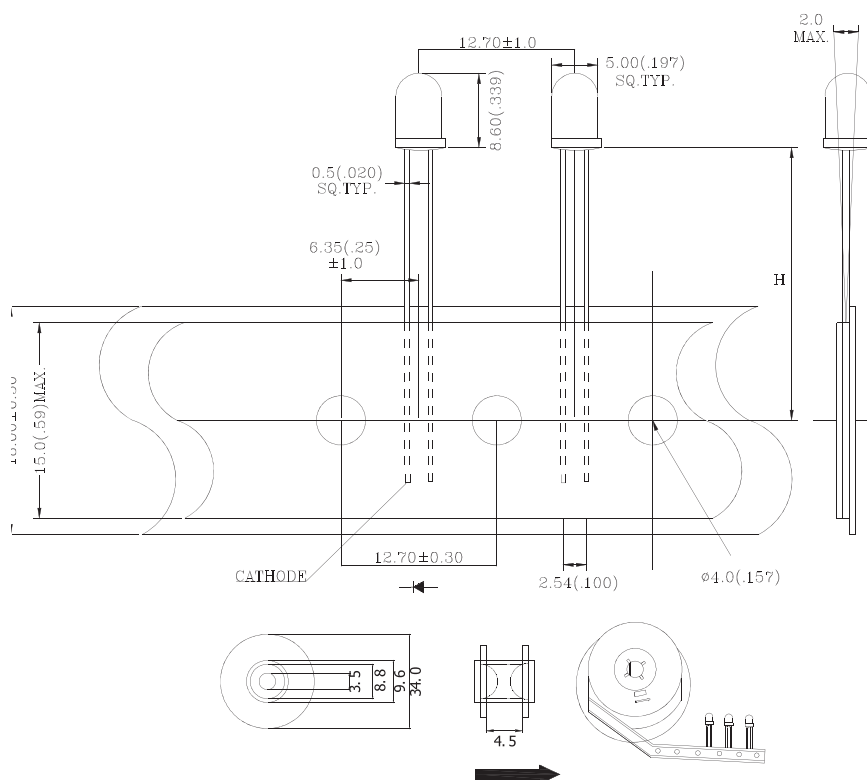
Part NO	H
L-513XX-TBS180	18.0mm
L-513XX-TBS190	19.0mm
L-513XX-TBS200	20.0mm
L-513XX-TBS220	22.0mm
L-513XX-TBS240	24.0mm



Part No	Ref.PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd) 20mA	
						Typ.	Max.	Typ.	
L-513ED-E610-TBSH	LJR5AD732	GaAsP	 Amber	Orange Diffused	605	2.1	2.6	20	110
L-513GD-TBSH	LJR5GD731	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	20	110
L-513YD-TBSH	LJR5YD730	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	15	110
L-513ED-TBSH	LJR5ED729	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	20	110
L-513SRD-TBSH	LJR5SRD728	GaAlInP	 Red	Red Diffused	640	1.8	2.2	40	110

L-513XXX-TRSH -5.0mm Dia. LED LAMP

Part NO	H
L-513XX-TRS180	18.0mm
L-513XX-TRS190	19.0mm
L-513XX-TRS200	20.0mm
L-513XX-TRS220	22.0mm
L-513XX-TRS240	24.0mm



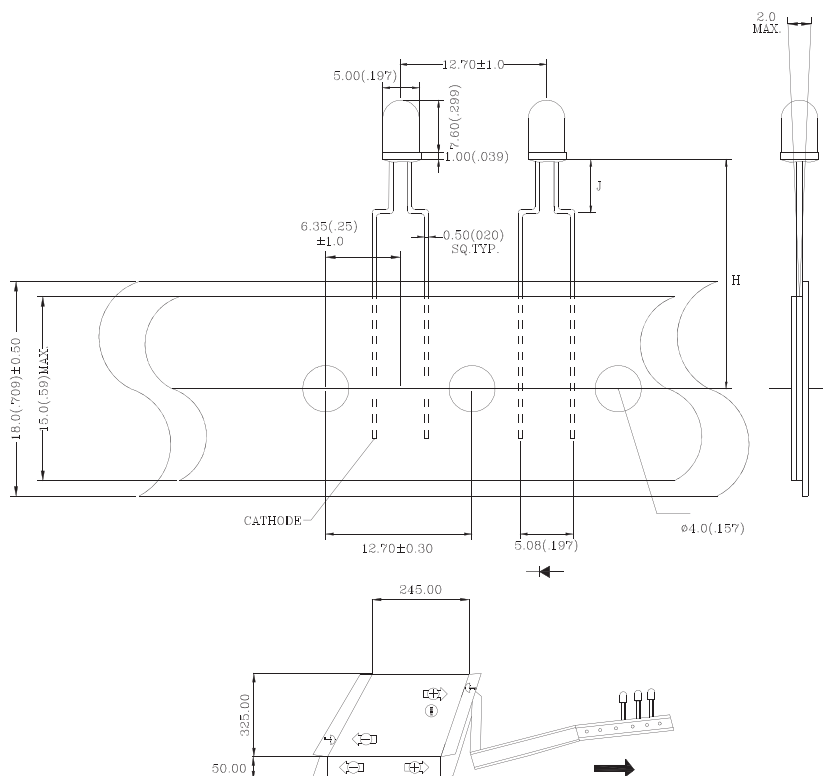
Part No	Ref.PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd) 20mA	
						Typ.	Max.	Typ.	
L-513ED-E610-TRSH	LJR5AD727	GaAsP	 Amber	Orange Diffused	605	2.1	2.6	20	110
L-513GD-TRSH	LJR5GD726	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	20	110
L-513YD-TRSH	LJR5YD725	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	15	110
L-513ED-TRSH	LJR5ED724	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	20	110
L-513SRD-TRSH	LJR5SRD723	GaAlInP	 Red	Red Diffused	640	1.8	2.2	40	110

LED LAMP

L-513XXX-TBFHJ -5.0mm Dia. LED LAMP

LED LAMP

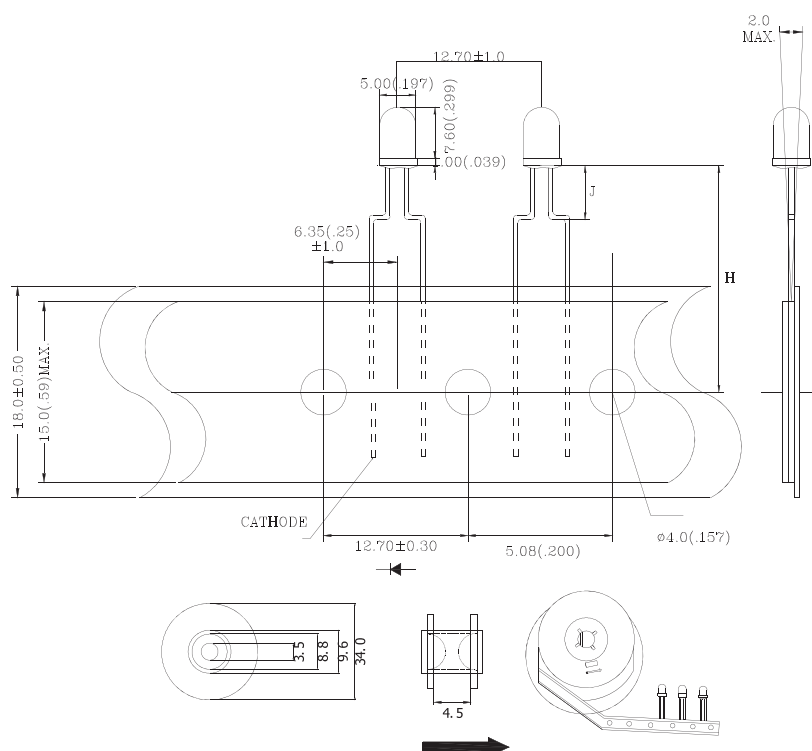
Part NO	H	J
L-513XX-TBF180A	18.0mm	3.0mm
L-513XX-TBF190B	19.0mm	4.0mm
L-513XX-TBF200C	20.0mm	5.0mm
L-513XX-TBF220D	22.0mm	6.0mm
L-513XX-TBF240E	24.0mm	7.0mm



Part No	Ref.PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd) 20mA	
						Typ.	Max.	Typ.	
L-513ED-E610-TBFHJ	LJR5AD722	GaAsP	 Amber	Orange Diffused	605	2.1	2.6	20	110
L-513GD-TBFHJ	LJR5GD721	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	20	110
L-513YD-TBFHJ	LJR5YD720	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	15	110
L-513ED-TBFHJ	LJR5ED719	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	20	110
L-513SRD-TBFHJ	LJR5SRD718	GaAlInP	 Red	Red Diffused	640	1.8	2.2	40	110

L-513XXX-TRFHJ -5.0mm Dia. LED LAMP

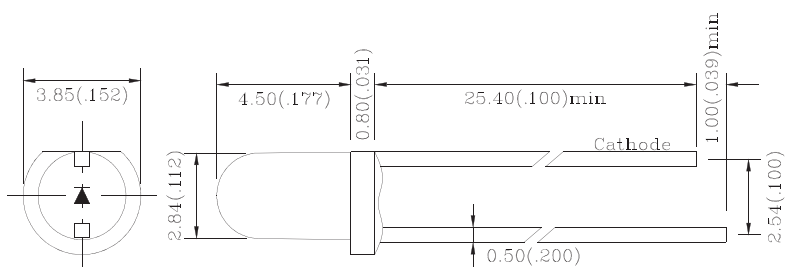
Part NO	H	J
L-513XX-TRF180A	18.0mm	3.0mm
L-513XX-TRF190B	19.0mm	4.0mm
L-513XX-TRF200C	20.0mm	5.0mm
L-513XX-TRF220D	22.0mm	6.0mm
L-513XX-TRF240E	24.0mm	7.0mm



Part No	Ref.PN	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd) 20mA	
						Typ.	Max.	Typ.	
L-513ED-E610-TRFHJ	LJR5AD717	GaAsP	 Amber	Orange Diffused	605	2.1	2.6	20	110
L-513GD-TRFHJ	LJR5GD716	GaAlInP	 Yellow Green	Green Diffused	570	2.2	2.6	20	110
L-513YD-TRFHJ	LJR5YD715	GaAlInP	 Yellow	Yellow Diffused	587	2.1	2.6	15	110
L-513ED-TRFHJ	LJR5ED714	GaAlInP	 Orange	Red Diffused	628	2.1	2.6	20	110
L-513SRD-TRFHJ	LJR5SRD713	GaAlInP	 Red	Red Diffused	640	1.8	2.2	40	110

LED LAMP

L-31XXIR1X -3.0mm INFRARED EMITTING DIODE



◆ ABSOLUTE MAXIMUM RATING : (Ta = 25°C)

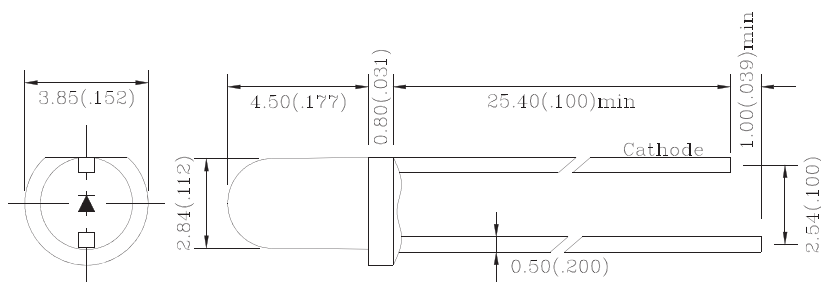
Part No	PD(mw)	VR(V)	Topr	Tstg
L-31XXIR1XX	100	5	-35°C to 85°C	-35°C to 85°C
PARAMETER	Power Dissipation	Reverse Voltage	Operating Temperature Range	Storage Temperature Range

Lead Soldering Temperature { 1.6mm(0.063 inch) From Body } 250°C ± 5°C for 3 Seconds

◆ ELECTRO-OPTICAL CHARACTERISTICS : (Ta = 25°C)

TEST CONDITION	IF=20mA IF=100mA			VR=5V			IF=20mA			IF=20mA			IF=20mA		
Part No	VF(V)			IR (μA)			λp(nm)			2 θ 1/2 (dge)			Ie(mw/sr)		
	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.
L-314EIR1C		1.2 1.4	1.6			10		940			20		7	14	
L-315EIR1C		1.2 1.4	1.6			10		940			25		6	12	
L-316EIR1C		1.2 1.4	1.6			10		940			30		6	12	
L-318EIR1C		1.2 1.4	1.6			10		940			40		6	10	
L-314EIR1BC		1.2 1.4	1.6			10		940			20		5	10	
L-315EIR1BC		1.2 1.4	1.6			10		940			25		6	12	
L-316EIR1BC		1.2 1.4	1.6			10		940			30		6	12	
L-318CIR1BC		1.2 1.4	1.6			10		940			40		4	8	

L-31XXIR4X -3.0mm INFRARED EMITTING DIODE



◆ ABSOLUTE MAXIMUM RATING : (Ta = 25°C)

Part No	PD(mw)	VR(V)	Topr	Tstg
L-31XXIR4XX	100	5	-35°C to 85°C	-35°C to 85°C
PARAMETER	Power Dissipation	Reverse Voltage	Operating Temperature Range	Storage Temperature Range

Lead Soldering Temperature { 1.6mm(0.063 inch) From Body } 250°C ± 5°C for 3 Seconds

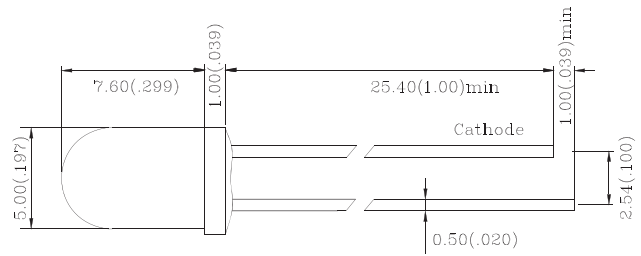
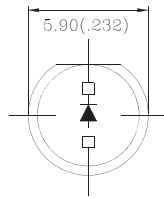
◆ ELECTRO-OPTICAL CHARACTERISTICS : (Ta = 25°C)

TEST CONDITION	IF=20mA IF=100mA			VR=5V			IF=20mA			IF=20mA			IF=20mA		
Part No	VF(V)			IR (μA)			λp(nm)			2 θ 1/2 (dge)			Ie(mw/sr)		
	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.
L-314EIR4C		1.4 1.6	1.8 2.0			10		850			20		7	21	
L-315EIR4C		1.4 1.6	1.8 2.0			10		850			25		6	18	
L-316EIR4C		1.4 1.6	1.8 2.0			10		850			30		6	18	
L-318EIR4C		1.4 1.6	1.8 2.0			10		850			40		12	30	
L-314EIR4BC		1.4 1.6	1.8 2.0			10		850			20		5	15	
L-315EIR4BC		1.4 1.6	1.8 2.0			10		850			25		6	18	
L-316EIR4BC		1.4 1.6	1.8 2.0			10		850			30		6	18	
L-318EIR4BC		1.4 1.6	1.8 2.0			10		850			40		6	15	
L-31AEIR4C		1.4 1.6	1.8 2.0			10		850			50		12	30	

LED LAMP

L-51XXIR1X -5.0mm INFRARED EMITTING DIODE

LED LAMP



◆ ABSOLUTE MAXIMUM RATING : (Ta = 25°C)

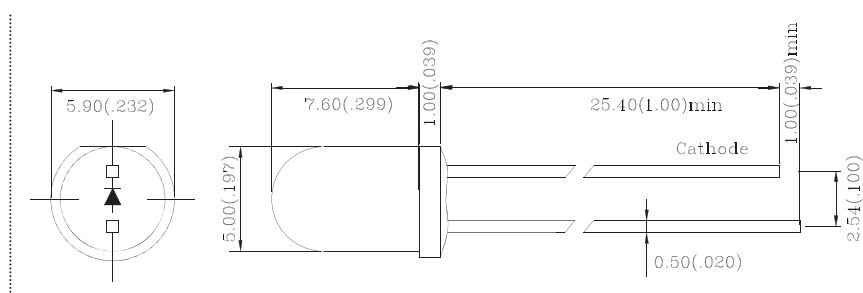
Part No	PD(mw)	VR(V)	Topr	Tstg
L-51XXIR1XX	180	5	-35°C to 85°C	-35°C to 85°C
PARAMETER	Power Dissipation	Reverse Voltage	Operating Temperature Range	Storage Temperature Range

Lead Soldering Temperature { 1.6mm(0.063 inch) From Body } 250°C ± 5°C for 3 Seconds

◆ ELECTRO-OPTICAL CHARACTERISTICS : (Ta = 25°C)

TEST CONDITION	IF=20mA IF=100mA			VR=5V			IF=20mA			IF=20mA			IF=20mA		
Part No	VF(V)			IR (μA)			λp(nm)			2 θ 1/2 (dge)			Ie(mw/sr)		
	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.
L-514EIR1C		1.2 1.4	1.6			10		940			20		17	30	
L-516EIR1C		1.2 1.4	1.6			10		940			30		12	23	
L-517EIR1C		1.2 1.4	1.6			10		940			35		10	20	
L-518CIR1C		1.3 1.5	1.8			10		940			40		6	12	
L-519EIR1C		1.2 1.4	1.6			10		940			45		7	15	
L-51CEIR1C		1.3 1.5	1.8			10		940			50		3	6	
L-514EIR1BC		1.2 1.4	1.6			10		940			20		17	30	
L-516EIR1BC		1.2 1.4	1.6			10		940			30		12	23	
L-517EIR1BC		1.2 1.4	1.6			10		940			35		10	20	
L-518EIR1BC		1.2 1.4	1.6			10		940			40		8	18	
L-519EIR1BC		1.2 1.4	1.6			10		940			45		7	15	
L-51AEIR1BC		1.2 1.4	1.6			10		940			50		6	12	

L-51XXIR2X -5.0mm INFRARED EMITTING DIODE



◆ ABSOLUTE MAXIMUM RATING : (Ta = 25°C)

Part No	PD(mw)	VR(V)	Topr	Tstg
L-51XXIR2XX	180	5	-35°C to 85°C	-35°C to 85°C
PARAMETER	Power Dissipation	Reverse Voltage	Operating Temperature Range	Storage Temperature Range

Lead Soldering Temperature { 1.6mm(0.063 inch) From Body } 250°C ± 5°C for 3 Seconds

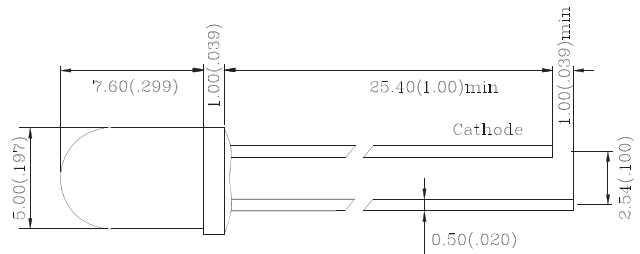
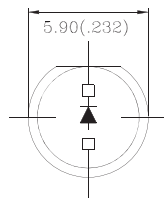
◆ ELECTRO-OPTICAL CHARACTERISTICS : (Ta = 25°C)

TEST CONDITION	IF=20mA IF=100mA			VR=5V			IF=20mA			IF=20mA			IF=20mA		
Part No	VF(V)			IR (μA)			λp(nm)			2 θ 1/2 (dge)			Ie(mw/sr)		
	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.
L-514EIR2C		1.3 1.6	1.8			10		880			20		17	30	
L-516EIR2C		1.3 1.6	1.8			10		880			30		12	23	
L-518EIR2C		1.3 1.6	1.8			10		880			40		8	21	
L-51AEIR2C		1.3 1.6	1.8			10		880			50		6	10	
L-514EIR2BC		1.3 1.6	1.8			10		880			20		17	30	
L-516EIR2BC		1.3 1.6	1.8			10		880			30		12	23	
L-518EIR2BC		1.3 1.6	1.8			10		880			40		8	21	
L-51AEIR2BC		1.3 1.6	1.8			10		880			50		6	10	

LED LAMP

L-51XXIR3X -5.0mm INFRARED EMITTING DIODE

LED LAMP



◆ ABSOLUTE MAXIMUM RATING : (Ta = 25°C)

Part No	PD(mw)	VR(V)	Topr	Tstg
L-51XXIR3XX	200	5	-35°C to 85°C	-35°C to 85°C
PARAMETER	Power Dissipation	Reverse Voltage	Operating Temperature Range	Storage Temperature Range

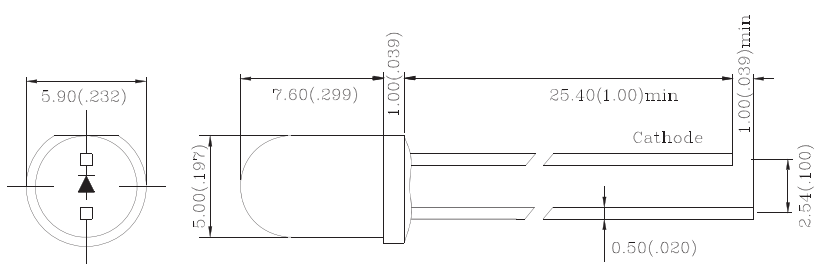
Lead Soldering Temperature { 1.6mm(0.063 inch) From Body } 250°C ± 5°C for 3 Seconds

◆ ELECTRO-OPTICAL CHARACTERISTICS : (Ta = 25°C)

TEST CONDITION	IF=20mA IF=100mA			VR=5V			IF=20mA			IF=20mA			IF=20mA		
Part No	VF(V)			IR (μA)			λp(nm)			2 θ 1/2 (dge)			Ie(mw/sr)		
	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.
L-514EIR3C		1.4	1.6			10		865			20		30	50	
L-515EIR3C		1.4	1.6			10		865			25		28	35	
L-516EIR3C		1.4	1.6			10		865			30		26	30	
L-517CIR3C		1.4	1.6			10		865			35		20	25	
L-518EIR3C		1.4	1.6			10		865			40		18	22	
L-51AEIR3C		1.4	1.6			10		865			50		16	20	
L-514EIR3BC		1.4	1.6			10		865			20		30	50	
L-515EIR3BC		1.4	1.6			10		865			25		28	35	
L-516EIR3BC		1.4	1.6			10		865			30		26	30	
L-518EIR3BC		1.4	1.6			10		865			40		18	22	
L-51AEIR3BC		1.4	1.6			10		865			50		16	20	

D-40 PARA LIGHT

L-51XXIR4X -5.0mm INFRARED EMITTING DIODE



◆ ABSOLUTE MAXIMUM RATING : (Ta = 25°C)

Part No	PD(mw)	VR(V)	Topr	Tstg
L-51XXIR4XX	200	5	-35°C to 85°C	-35°C to 85°C
PARAMETER	Power Dissipation	Reverse Voltage	Operating Temperature Range	Storage Temperature Range

Lead Soldering Temperature { 1.6mm(0.063 inch) From Body } 250°C ± 5°C for 3 Seconds

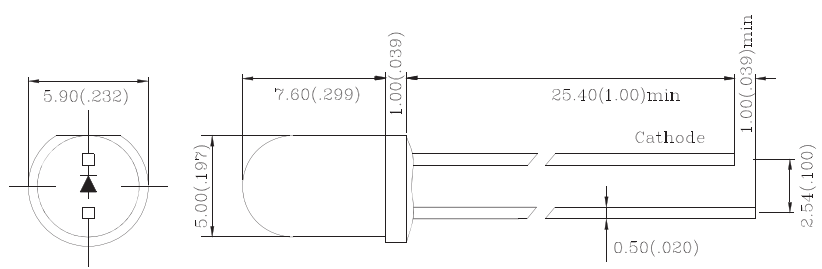
◆ ELECTRO-OPTICAL CHARACTERISTICS : (Ta = 25°C)

TEST CONDITION	IF=20mA IF=100mA			VR=5V			IF=20mA			IF=20mA			IF=20mA		
Part No	VF(V)			IR (μA)			λp(nm)			2 θ 1/2 (dge)			Ie(mw/sr)		
	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.
L-514EIR4C		1.4 1.6	1.8 2.0			10		850			20		28	40	
L-516EIR4C		1.4 1.6	1.8 2.0			10		850			30		20	30	
L-518EIR4C		1.4 1.6	1.8 2.0			10		850			40		12	20	
L-51AEIR4C		1.4 1.6	1.8 2.0			10		850			50		6	12	
L-51CEIR4C		1.4 1.6	1.8 2.0			10		850			60		5	10	
L-514EIR4BC		1.4 1.6	1.8 2.0			10		850			20		28	40	
L-516EIR4BC		1.4 1.6	1.8 2.0			10		850			30		20	30	
L-518EIR4BC		1.4 1.6	1.8 2.0			10		850			40		12	20	
L-51AEIR4BC		1.4 1.6	1.8 2.0			10		850			50		6	12	

LED LAMP

L-51XGIR4X -5.0mm INFRARED EMITTING DIODE

LED LAMP



◆ ABSOLUTE MAXIMUM RATING : (Ta = 25°C)

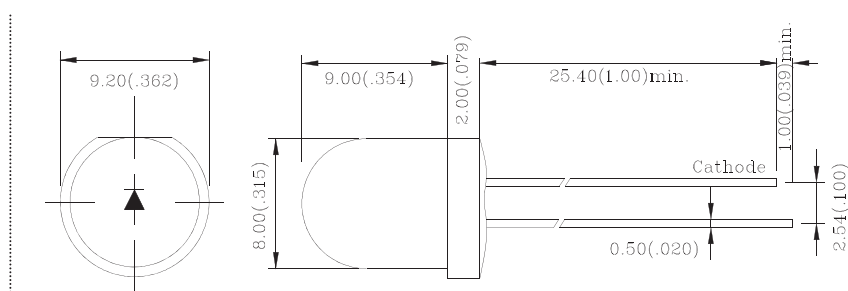
Part No	PD(mw)	VR(V)	Topr	Tstg
L-51XGIR4XX	200	5	-35°C to 85°C	-35°C to 85°C
PARAMETER	Power Dissipation	Reverse Voltage	Operating Temperature Range	Storage Temperature Range

Lead Soldering Temperature { 1.6mm(0.063 inch) From Body } 250°C ± 5°C for 3 Seconds

◆ ELECTRO-OPTICAL CHARACTERISTICS : (Ta = 25°C)

TEST CONDITION	IF=70mA IF=100mA			VR=5V			IF=100mA			IF=100mA			IF=100mA		
Part No	VF(V)			IR (μA)			λp(nm)			2 θ 1/2 (dge)			Ie(mw/sr)		
	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.
L-514GIR4C		1.4	1.8			10		850			20		127	170	
L-516GIR4C		1.4	1.8			10		850			30		112	160	
L-518GIR4C		1.4	1.8			10		850			40		68	85	
L-51AGIR4C		1.4	1.8			10		850			50		28	40	
L-514GIR4BC		1.4	1.8			10		850			20		127	170	
L-516GIR4BC		1.4	1.8			10		850			30		112	160	
L-518GIR4BC		1.4	1.8			10		850			40		68	85	
L-51AGIR4BC		1.4	1.8			10		850			50		28	40	

L-81XXIR4X -8.0mm INFRARED EMITTING DIODE



◆ ABSOLUTE MAXIMUM RATING : (Ta = 25°C)

Part No	PD(mw)	VR(V)	Topr	Tstg
L-81XXIR4XX	240	5	-35°C to 85°C	-35°C to 85°C
PARAMETER	Power Dissipation	Reverse Voltage	Operating Temperature Range	Storage Temperature Range

Lead Soldering Temperature { 1.6mm(0.063 inch) From Body } 250°C ± 5°C for 3 Seconds

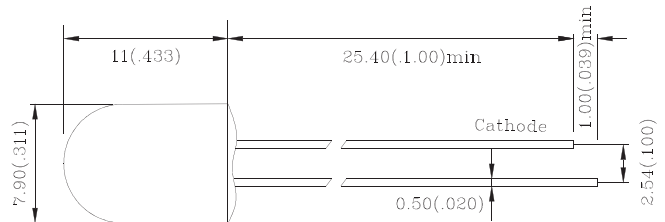
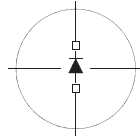
◆ ELECTRO-OPTICAL CHARACTERISTICS : (Ta = 25°C)

TEST CONDITION	IF=20mA IF=100mA			VR=5V			IF=20mA			IF=20mA			IF=20mA		
Part No	VF(V)			IR (μA)			λp(nm)			2 θ 1/2 (dge)			Ie(mw/sr)		
	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.
L-814CIR4C		1.4 1.6	1.8 2.0			10		850			20		28	40	
L-816CIR4C		1.4 1.6	1.8 2.0			10		850			30		18	28	
L-818CIR4C		1.4 1.6	1.8 2.0			10		850			40		15	22	
L-81ACIR4C		1.4 1.6	1.8 2.0			10		850			50		6	11	
L-814EIR4C		1.4 1.6	1.8 2.0			10		850			20		32	50	
L-816EIR4C		1.4 1.6	1.8 2.0			10		850			30		24	36	
L-818EIR4C		1.4 1.6	1.8 2.0			10		850			40		15	24	
L-81AEIR4C		1.4 1.6	1.8 2.0			10		850			50		8	14	
L-814EIR4BC		1.4 1.6	1.8 2.0			10		850			20		32	50	
L-816EIR4BC		1.4 1.6	1.8 2.0			10		850			30		24	36	

LED LAMP

L-89XGIR4X -8.0mm INFRARED EMITTING DIODE

LED LAMP



◆ ABSOLUTE MAXIMUM RATING : (Ta = 25°C)

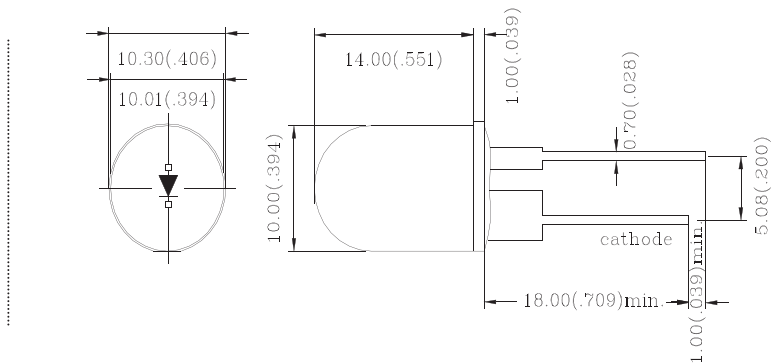
Part No	PD(mw)	VR(V)	Topr	Tstg
L-89XGIR4XX	160	5	-35°C to 85°C	-35°C to 85°C
PARAMETER	Power Dissipation	Reverse Voltage	Operating Temperature Range	Storage Temperature Range

Lead Soldering Temperature { 1.6mm(0.063 inch) From Body } 250°C ± 5°C for 3 Seconds

◆ ELECTRO-OPTICAL CHARACTERISTICS : (Ta = 25°C)

TEST CONDITION	IF=70mA IF=100mA			VR=5V			IF=100mA			IF=100mA			IF=100mA		
Part No	VF(V)			IR (μA)			λp(nm)			2 θ 1/2 (dge)			Ie(mw/sr)		
	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.
L-892GIR4C		1.4 1.5	1.8 2.0			10		850			10		320	400	
L-894GIR4C		1.4 1.5	1.8 2.0			10		850			20		127	180	
L-896GIR4C		1.4 1.5	1.8 2.0			10		850			30		74	100	
L-898GIR4C		1.4 1.5	1.8 2.0			10		850			40		38	55	
L-89CGIR4C		1.4 1.5	1.8 2.0			10		850			60		32	50	

L-84XOIR4X -10.0mm INFRARED EMITTING DIODE



◆ ABSOLUTE MAXIMUM RATING : (Ta = 25°C)

Part No	PD(mw)	VR(V)	Topr	Tstg
L-84XOIR4XX	500	5	-35°C to 85°C	-35°C to 85°C
PARAMETER	Power Dissipation	Reverse Voltage	Operating Temperature Range	Storage Temperature Range

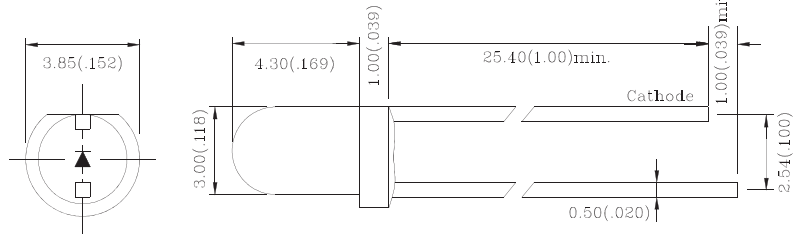
Lead Soldering Temperature { 1.6mm(0.063 inch) From Body } 250°C ± 5°C for 3 Seconds

◆ ELECTRO-OPTICAL CHARACTERISTICS : (Ta = 25°C)

TEST CONDITION	IF=150mA IF=350mA			VR=5V			IF=20mA			IF=350mA			IF=350mA		
Part No	VF(V)			IR (μA)			λp(nm)			2 θ 1/2 (dge)			Ie(mw/sr)		
	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.
L-842OIR4C		1.5 1.7	2.1 2.4			10		850			10		790	900	
L-844OIR4C		1.5 1.7	2.1 2.4			10		850			20		320	420	
L-846OIR4C		1.5 1.7	2.1 2.4			10		850			30		264	350	
L-848OIR4C		1.5 1.7	2.1 2.4			10		850			40		240	300	
L-84AOIR4C		1.5 1.7	2.1 2.4			10		850			50		200	250	

LED LAMP

L-31ROPT1X -3.0mm PHOTOTRANSISTOR



◆ ABSOLUTE MAXIMUM RATING : (Ta = 25°C)

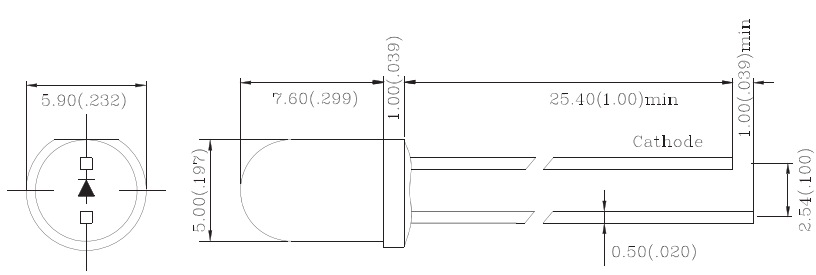
Part No	PD(mw)	V(BR)CEO	Topr	Tstg
L-31ROPT1X	150	30	-35°C to 85°C	-35°C to 85°C
PARAMETER	Power Dissipation	Collector-Emitter Breakdown Voltage	Operating Temperature Range	Storage Temperature Range

Lead Soldering Temperature { 1.6mm(0.063 inch) From Body } 250°C ± 5°C for 3 Seconds

◆ ELECTRO-OPTICAL CHARACTERISTICS : (Ta = 25°C)

TEST CONDITION	Ic=100uA Ee=0 mw/cm ²			IE=100uA Ee= 0 mw/cm ²			VCE=20V Ee=0 mw/cm ²			IC=2mA Ee=0.5 mw/cm ²			VCE=5V IC=1mA RL=1000 Ω			VCE=5V Ee=0.1 mw/cm ²					
Part No	BVCEO(V)			BVECO(V)			ICEO(nA)			VCE(S) (V)			TR/TF(uS)			IC(mA)			λp(nm)		
	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.
L-31ROPT1C	30			5					100			0.4		15/15			4		400		1050
L-31ROPT1D1	30			5					100			0.4		15/15			1.2		900	940	
L-31ROPT1D2	30			5					100			0.4		15/15			2		800	870	
L-31ROPT1D1-T01	30			5					100			0.4		15/15			1.3		900	940	
L-31ROPT1D1-T02	30			5					100			0.4		15/15			3		900	940	

L-51ROPT1X -5.0mm PHOTOTRANSISTOR



◆ ABSOLUTE MAXIMUM RATING : (Ta = 25°C)

Part No	PD(mw)	V(BR)CEO	Topr	Tstg
L-51ROPT1X	10	30	-35°C to 85°C	-35°C to 85°C
PARAMETER	Power Dissipation	Collector-Emitter Breakdown Voltage	Operating Temperature Range	Storage Temperature Range

Lead Soldering Temperature { 1.6mm(0.063 inch) From Body } 250°C ± 5°C for 3 Seconds

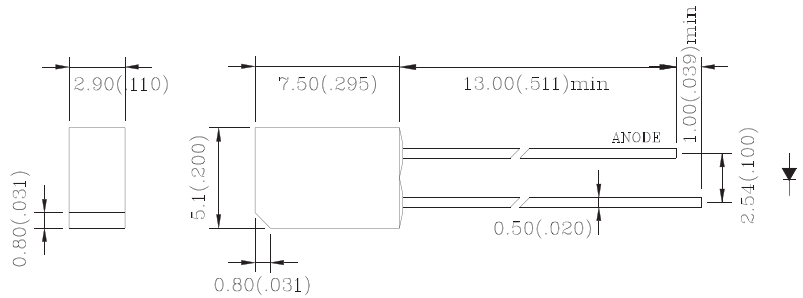
◆ ELECTRO-OPTICAL CHARACTERISTICS : (Ta = 25°C)

TEST CONDITION	Ic=100uA Ee=0 mw/cm²			IE=100μA Ee= 0 mw/cm²			VCE=20V Ee=0 mw/cm²			IC=2mA Ee=0.5 mw/cm²			VCE=5V IC=1mA RL=1000 Ω			VCE=5V Ee=0.1 mw/cm²					
Part No	BVCEO(V)			BVECO(V)			ICEO(nA)			VCE(S) (V)			TR/TF(μs)			IC(mA)			λp(nm)		
	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.
L-51ROPT1C	30			5					100			0.4		15/15			2		400		1050
L-51ROPT1D1	30			5					100			0.4		15/15			1.2		900	940	
L-51ROPT1D2	30			5					100			0.4		15/15			1.2		800	870	
L-51ROPT1C-T02	30			5					100			0.4		15/15			3		400		1050

LED LAMP

L-SB1R9PD1X - PHOTOTRANSISTOR

LED LAMP



◆ ABSOLUTE MAXIMUM RATING : (Ta = 25°C)

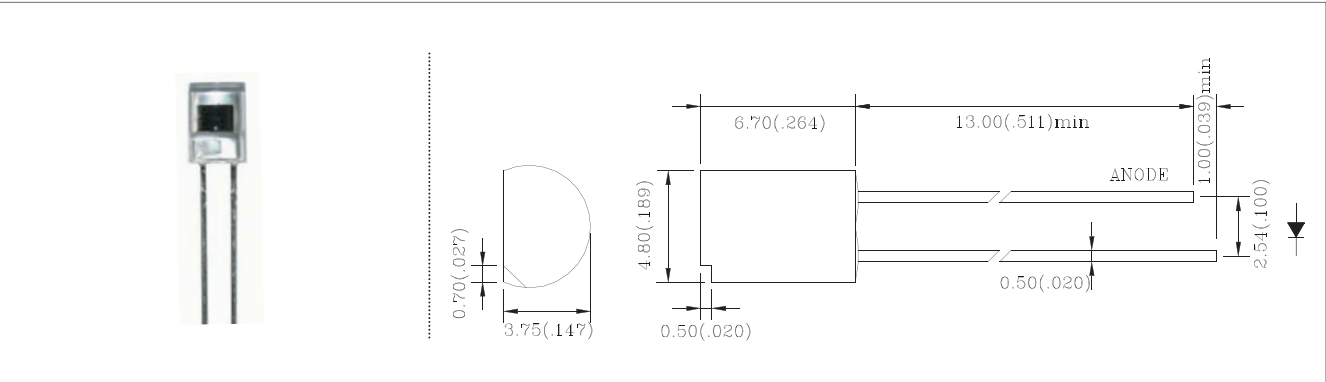
Part No	PD(mw)	V(BR)CEO	Topr	Tstg
L-SB1R9PD1X	150	30	-35°C to 85°C	-35°C to 85°C
PARAMETER	Power Dissipation	Collector-Emitter Breakdown Voltage	Operating Temperature Range	Storage Temperature Range

Lead Soldering Temperature { 1.6mm(0.063 inch) From Body } 250°C ± 5°C for 3 Seconds

◆ ELECTRO-OPTICAL CHARACTERISTICS : (Ta = 25°C)

TEST CONDITION	VR= 10V Ee = 0 mw/cm ²			IR=100μA Ee= 0 mw/cm ²			λP=940nm Ee=0.5mw/cm ²			VR=5V Ee=0.1 mw/cm ²			VR=10V RL=1000Ω			f=1MHZ VR=5V Ee=0 mw/cm ²					
Part No	ID(nA)			V(BR)R(V)			VOC(V)			IL(μA)			tON/Toff(nS)			IC(mA)			λp(nm)		
	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.
L-SB1R9PD1C		5	30	33	170			390		30	40			45/45			18		400		1050
L-SB1R9PD1D1		5	30	33	170			390		30	40			45/45			18		900	940	
L-SB1R9PD1D2		5	30	33	170			390		30	40			45/45			18		800	870	

L-SC1R9PD1X - PHOTOTRANSISTOR



◆ ABSOLUTE MAXIMUM RATING : (Ta = 25°C)

Part No	PD(mw)	V(BR)CEO	Topr	Tstg
L-SC1R9PD1X	150	30	-35°C to 85°C	-35°C to 85°C
PARAMETER	Power Dissipation	Collector-Emitter Breakdown Voltage	Operating Temperature Range	Storage Temperature Range

Lead Soldering Temperature { 1.6mm(0.063 inch) From Body } 250°C ± 5°C for 3 Seconds

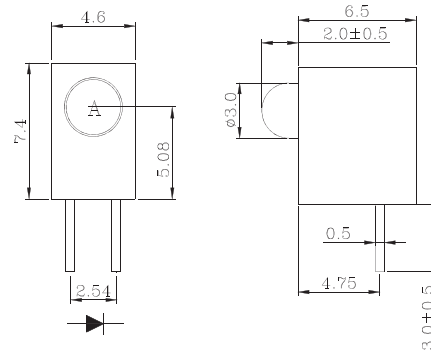
◆ ELECTRO-OPTICAL CHARACTERISTICS : (Ta = 25°C)

TEST CONDITION	VR= 10V Ee = 0 mw/cm ²			IR=100μA Ee= 0 mw/cm ²			λP=940nm Ee=0.5mw/cm ²			VR=5V Ee=0.1 mw/cm ²			VR=10V RL=1000Ω			f=1MHZ VR=5V Ee=0 mw/cm ²					
Part No	ID(nA)			V(BR)R(V)			VOC(V)			IL(μA)			tON/Toff(nS)			IC(mA)			λp(nm)		
	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.
L-SC1R9PD1C		5	30	33	170			390		30	40			45/45			18		400		1050
L-SC1R9PD1D1		5	30	33	170			390		30	40			45/45			18		900	940	
L-SC1R9PD1D2		5	30	33	170			390		30	40			45/45			18		800	870	

LED LAMP

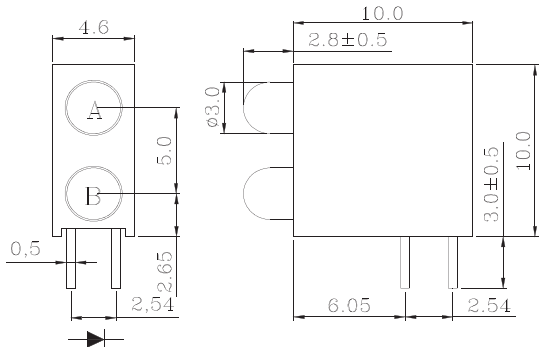
L-H311XXXX -3.0mm LED LAMP WITH LHY3301-1 HOLDER

LED HOLDER



Part No	LED Lamp	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-H311005B	A=L-3524GD	GaAlInP	 Yellow Green	Green Diffused	570	2.0	2.6	18	60
L-H311006B	A=L-3524YD	GaAsP	 Yellow	Yellow Diffused	587	2.1	2.6	18	60
L-H311007B	A=L-3524ED	GaAlInP	 Orange	Red Diffused	633	2.0	2.6	18	60
L-H311008B	A=L-3524SRD	GaAlInP	 Red	Red Diffused	640	1.8	2.2	50	60

L-H322XXXX -3.0mm LED LAMP WITH LHY3302-7 HOLDER

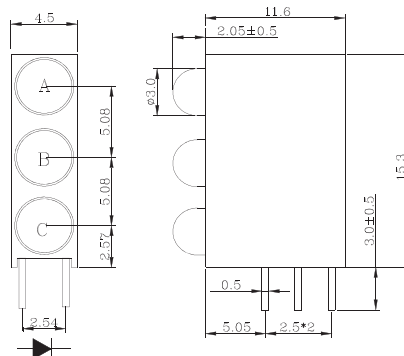


Part No	LED Lamp	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-H322005B	A=L-3524GD	GaAlInP	Yellow Green	Green Diffused	570	2.0	2.6	18	60
	B=L-3524GD	GaAlInP	Yellow Green	Green Diffused	570	2.0	2.6	18	60
L-H322006B	A=L-3524YD	GaAsP	Yellow	Yellow Diffused	587	2.1	2.6	18	60
	B=L-3524YD	GaAsP	Yellow	Yellow Diffused	587	2.1	2.6	18	60
L-H322007B	A=L-3524ED	GaAlInP	Orange	Red Diffused	633	2.0	2.6	18	60
	B=L-3524ED	GaAlInP	Orange	Red Diffused	633	2.0	2.6	18	60
L-H322008B	A=L-3524SRD	GaAlInP	Red	Red Diffused	640	1.8	2.2	50	60
	B=L-3524SRD	GaAlInP	Red	Red Diffused	640	1.8	2.2	50	60

LED LAMP

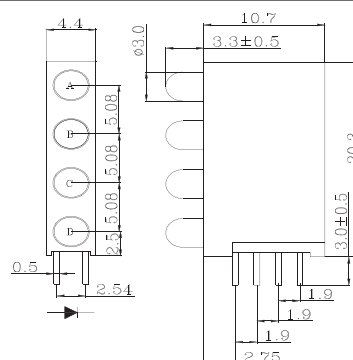
L-H331XXXX -3.0mm LED LAMP WITH LHY3303-4 HOLDER

LED HOLDER



Part No	LED Lamp	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-H331005B	A=L-3541GD	GaAlInP	 Yellow Green	Green Diffused	570	2.0	2.6	18	60
	B=L-3541GD	GaAlInP	 Yellow Green	Green Diffused	570	2.0	2.6	18	60
	C=L-3541GD	GaAlInP	 Yellow Green	Green Diffused	570	2.0	2.6	18	60
L-H331006B	A=L-3541YD	GaAsP	 Yellow	Yellow Diffused	587	2.1	2.6	18	60
	B=L-3541YD	GaAsP	 Yellow	Yellow Diffused	587	2.1	2.6	18	60
	C=L-3541YD	GaAsP	 Yellow	Yellow Diffused	587	2.1	2.6	18	60
L-H331007B	A=L-3541ED	GaAlInP	 Orange	Red Diffused	633	2.0	2.6	18	60
	B=L-3541ED	GaAlInP	 Orange	Red Diffused	633	2.0	2.6	18	60
	C=L-3541ED	GaAlInP	 Orange	Red Diffused	633	2.0	2.6	18	60
L-H331008B	A=L-3541SRD	GaAlInP	 Red	Red Diffused	640	1.8	2.2	50	60
	B=L-3541SRD	GaAlInP	 Red	Red Diffused	640	1.8	2.2	50	60
	C=L-3541SRD	GaAlInP	 Red	Red Diffused	640	1.8	2.2	50	60

L-H341XXXX -3.0mm LED LAMP WITH LED340A/B HOLDER



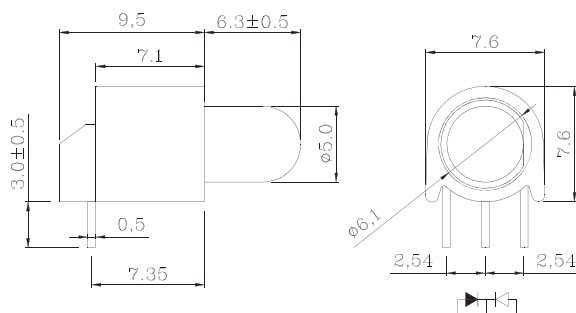
LED HOLDER

Part No	LED Lamp	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-H341005B	A=L-3541GD	GaAlInP	 Yellow Green	Green Diffused	570	2.0	2.6	18	60
	B=L-3541GD	GaAlInP	 Yellow Green	Green Diffused	570	2.0	2.6	18	60
	C=L-3541GD	GaAlInP	 Yellow Green	Green Diffused	570	2.0	2.6	18	60
	D=L-3541GD	GaAlInP	 Yellow Green	Green Diffused	570	2.0	2.6	18	60
L-H341006B	A=L-3541YD	GaAsP	 Yellow	Yellow Diffused	587	2.1	2.6	18	60
	B=L-3541YD	GaAsP	 Yellow	Yellow Diffused	587	2.1	2.6	18	60
	C=L-3541YD	GaAsP	 Yellow	Yellow Diffused	587	2.1	2.6	18	60
	D=L-3541YD	GaAsP	 Yellow	Yellow Diffused	587	2.1	2.6	18	60
L-H341007B	A=L-3541ED	GaAlInP	 Orange	Red Diffused	633	2.0	2.6	18	60
	B=L-3541ED	GaAlInP	 Orange	Red Diffused	633	2.0	2.6	18	60
	C=L-3541ED	GaAlInP	 Orange	Red Diffused	633	2.0	2.6	18	60
	D=L-3541ED	GaAlInP	 Orange	Red Diffused	633	2.0	2.6	18	60
L-H341008B	A=L-3541SRD	GaAlInP	 Red	Red Diffused	640	1.8	2.2	50	60
	B=L-3541SRD	GaAlInP	 Red	Red Diffused	640	1.8	2.2	50	60
	C=L-3541SRD	GaAlInP	 Red	Red Diffused	640	1.8	2.2	50	60
	D=L-3541SRD	GaAlInP	 Red	Red Diffused	640	1.8	2.2	50	60

LED LAMP

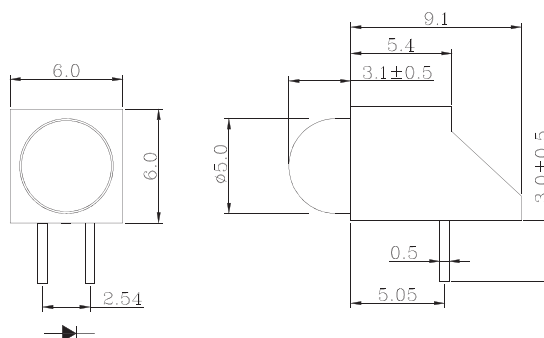
L-H511XXXX -5.0mm LED LAMP WITH LHY6101-1 HOLDER

LED HOLDER



Part No	LED Lamp	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-H511005B	L-519GYW	GaAlInP	 Yellow Green	White Diffused	570	2.0	2.6	18	120
		GaAsP	 Yellow		587	2.1	2.6	15	120
L-H511006B	L-519EGW	GaAlInP	 Orange	White Diffused	633	2.0	2.6	30	120
		GaAlInP	 Yellow Green		570	2.0	2.6	18	120
L-H511007B	L-519SRGW	GaAlInP	 Red	White Diffused	640	1.8	2.2	40	120
		GaAlInP	 Yellow Green		570	2.0	2.8	20	120

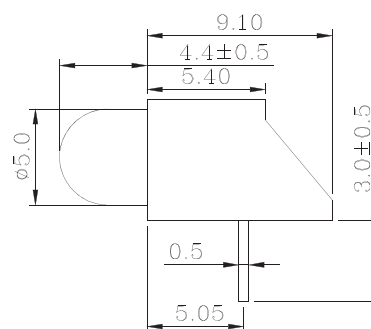
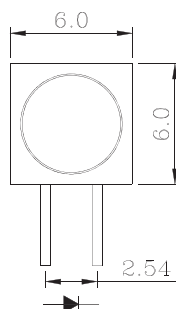
L-H512XXXX -5.0mm LED LAMP WITH LHY5001-1 HOLDER



Part No	LED Lamp	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-H512005B	A=L-5023GD	GaAlnP	 Yellow Green	Green Diffused	570	2.0	2.6	20	110
L-H512006B	A=L-5023YD	GaAsP	 Yellow	Yellow Diffused	587	2.1	2.6	15	110
L-H512007B	A=L-5023ED	GaAlnP	 Orange	Red Diffused	633	2.0	2.6	25	110
L-H512008B	A=L-5023SRD	GaAlnP	 Red	Red Diffused	640	1.8	2.2	50	110

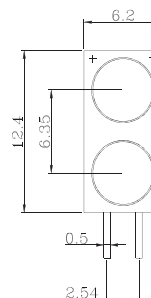
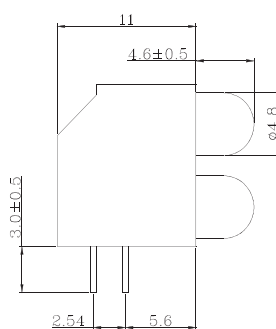
D-54 PARA LIGHT

L-H513XXXX -5.0mm LED LAMP WITH LHY5001-1 HOLDER



Part No	LED Lamp	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-H513005B	A=L-5223GD	GaAlInP	 Yellow Green	Green Diffused	570	2.0	2.6	15	110
L-H513006B	A=L-5223YD	GaAsP	 Yellow	Yellow Diffused	587	2.1	2.6	14	110
L-H513007B	A=L-5223ED	GaAlInP	 Orange	Red Diffused	633	2.0	2.6	25	110
L-H513008B	A=L-5223SRD	GaAlInP	 Red	Red Diffused	640	1.8	2.2	50	110

L-H523XXXX -5.0mm LED LAMP WITH LHY506 HOLDER



Part No	LED Lamp	Chip		Lens Color	Wave length λD (nm)	Electro-optical characteristics			View Angle (deg.)
		Raw Material	Emitted Color			VF(V)20mA		IV(mcd)20mA	
						Typ.	Max.	Typ.	
L-H523005B	A=L-523GD	GaAlInP	 Yellow Green	Green Diffused	570	2.0	2.6	15	110
	B=L-523GD	GaAlInP	 Yellow Green	Green Diffused	570	2.0	2.6	15	110
L-H523006B	A=L-523YD	GaAsP	 Yellow	Yellow Diffused	587	2.1	2.6	14	110
	B=L-523YD	GaAsP	 Yellow	Yellow Diffused	587	2.1	2.6	14	110

[illegible]

DISPLAY

Application:



DISPLAY

Display Part No. System

A – 23(0) 1 G X/X
X1 X2 X3 X4 X5

DISPLAY

X1		X2		X3	
Display Mode		Size		Number of Digit	
Code	Type	Code	Type	Code	Type
<u>Digit / Dot Matrix Display</u>		<u>Digit Display</u>		0	Dot Matrix
A	Common Anode	Digit Character Height (inch)		1	Single Digit
C	Common Cathode			2	Dual Digits
		<u>Dot Matrix Display</u>		3	Three Digits
		<u>Dot Diameter (mm) /</u>		4	Four Digits
		<u>Column Number /</u>		...	
		<u>Row Number</u>		8	Alpha Digit
<u>Back Light</u>					
K	Back Light				
<u>Light Bar</u>		<u>Light Bar</u>			
B	Bar	Light Bar Dimensions (mm)			
R	Round				

X4		X5	
Emitted Color		Surface Color / Segment Color	
Code	Type	Code	Type
G	GaAlInP 570nm Yellow Green	G/W	Grey & White
UB	GaInN 465nm Blue	B/W	Black & White
Y	GaAsP 587nm Yellow	B/R	Black & Red
E	GaAsP 628nm Orange	R/R	Red & Red
SR	GaAlInP 640nm Red	G/R	Grey & Red
UW	GaInN White	B/G	Black & Green

Display Reference Part No. System

D L C 1 5 G 106 G
X1 X2 X3 X4 X5 X6 X7 X8

X1		X2		X3		X4	
Display Mode		Announced Year		Driver Mode		Number of Digit	
Code	Type	Code	Type	Code	Type	Code	Type
D	Digit Display	H	2008	A	Common Anode	0	Dot Matrix
M	Dot Matrix Display	J	2009	C	Common Cathode	1	Single Digit
K	Back Light	K	2010	O	Backlight, Light Bar	2	Dual Digits
B	Light Bar	L	2011			3	Three Digits
		M	2012			4	Four Digits
		...				...	
X5		X6		X7		X8	
Digit Height (inch)		Emitted Color		Series Number		Producing Area	
Code	Type	Code	Type				
2	0.20"-0.299"	G	GaAlInP 570nm Yellow Green				
3	0.30"-0.399"	UB	GaInN 465nm Blue				
A	1.0"-1.099"	Y	GaAsP 587nm Yellow				
B	1.1"-1.199"	E	GaAsP 628nm Orange				
...		SR	GaAlInP 640nm Red				
O	Backlight, Light Bar	UW	GaInN White				

LCD Back Light
Part No. System

K – 042 04 G X P
X1 X2 X3 X4 X5 X6

X1		X2		X3	
LED item		Number of Chip		Series Number	
Code	Type	Code	Type		
K	Back Light	014	14		
		024	24		
		042	42		
		120	120		
		...	...		

X4		X5		X6	
Emitted Color		Tape Type		Pin Length	
Code	Type	Code	Type		
G	GaP 570nm Yellow Green	X	Thin Tape		
Y	GaAsP 587nm Yellow	XT	Double-Sided Tape		
E	GaAsP 628nm Orange				
SR	GaAlAs 640nm Red				

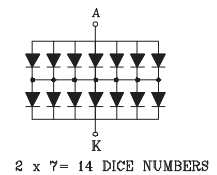
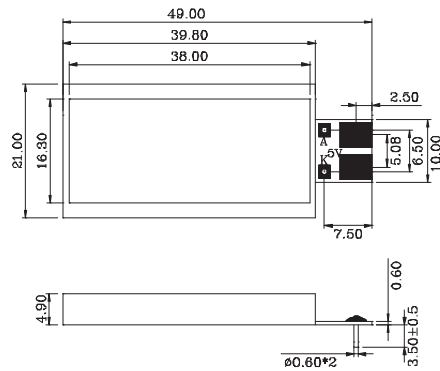
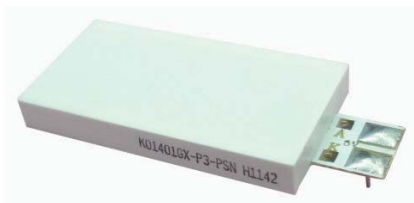
Display / LCD Back Light Reliability Test

Classification	Test Item	Test Condition	Reference Standard
Endurance Test	Operation Life	Ta : $25 \pm 5^{\circ}\text{C}$ IF : 20 mA Per Segment *Test Time : 168HRS (-12HRS, +12HRS) 500HRS (-24HRS, +24HRS) 800HRS (-24HRS +24HRS) 1000HRS (-24HRS, +72HRS)	MIL-STD-750:1026 MIL-STD-883:1005 JIS C 7021:B-1
	High Temperature High Humidity Storage	Ta : $65 \pm 5^{\circ}\text{C}$ Rh : 90~95%Rh *Test Time : 240HRS $\pm$ 2HRS	MIL-STD-202:103B JIS C 7021:B-11
	High Temperature Storage	Ta= $85 \pm 5^{\circ}\text{C}$ (Cob:Ta= $65 \pm 5^{\circ}\text{C}$) *Test Time= 1000HRS (-24HRS,+72HRS)	MIL-STD-883:1008 JIS C 7021:B-10
	Low Temperature Storage	Ta= $-35 \pm 5^{\circ}\text{C}$ *Test Time=1000HRS (-24HRS,+72HRS)	JIS C 7021:B-12
Environmental Test	Temperature Cycling	$85^{\circ}\text{C} \sim 25^{\circ}\text{C} \sim -35^{\circ}\text{C} \sim 25^{\circ}\text{C}$ 30min. 5min. 30min. 5min. 10 cycles (Cob:Thot= 65°C Tcold= -25°C)	MIL-STD-202:107D MIL-STD-750:1051 MIL-STD-883:1010 JIS C 7021:A-4
	Thermal Shock	$85 \pm 5^{\circ}\text{C} \sim -35 \pm 5^{\circ}\text{C}$ 10min. 10min. 10 cycles (Cob:Thot= 65°C Tcold= -25°C)	MIL-STD-202:107D MIL-STD-750:1051 MIL-STD-883:1011
	Solder Resistance	Tsol= $260 \pm 5^{\circ}\text{C}$ Dwell Time= 10 ± 1 sec.	MIL-STD-202:210A MIL-STD-750:2031 JIS C 7021 : A-1
	Solder Ability	Tsol= $230 \pm 5^{\circ}\text{C}$ Dwell Time= 5 ± 1 sec.	MIL-STD-202:208D MIL-STD-750:2026 MIL-STD-883:2003 JIS C 7021:A-2

- All Display/LCD Back Light product dimensions are in millimeters (inches).
- Tolerance is $\pm 0.25\text{mm}$ (0.01") unless otherwise specified.

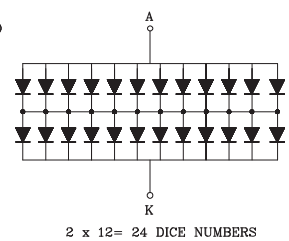
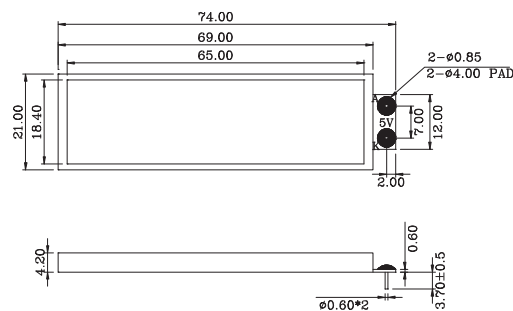
- Specifications are subject to change without notice.

K-01401GX -LCD BACK LIGHT



Part No	Luminous Area (mm)	Chip		Wave length λ_D (nm)	Electro-optical characteristics		
		Raw Material	Emitted Color		Input Current	$I_v(\text{cd/m}^2)$ Typ.	$V_f(\text{V})$ Typ.
K-01401GX	16.3x38.0mm	GaP	Yellow Green	570	$I_F=70\text{mA}$	180	4.2

K-02416GX -LCD BACK LIGHT

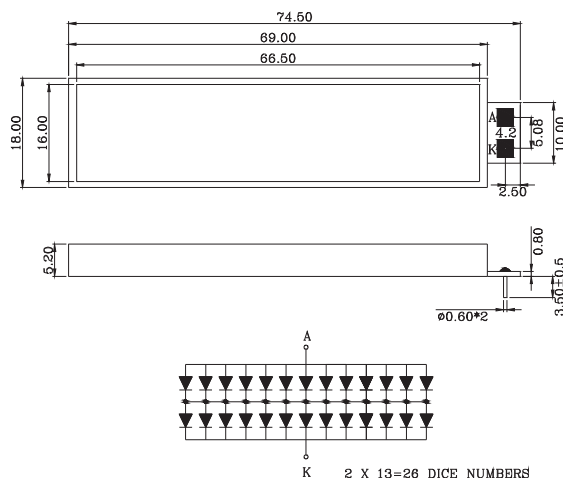
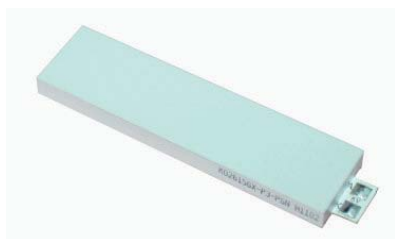


Part No	Luminous Area (mm)	Chip		Wave length λ_D (nm)	Electro-optical characteristics		
		Raw Material	Emitted Color		Input Current	$I_v(\text{cd/m}^2)$ Typ.	$V_f(\text{V})$ Typ.
K-02416GX	18.4x65.0mm	GaP	Yellow Green	570	$I_F=120\text{mA}$	120	4.2

DISPLAY

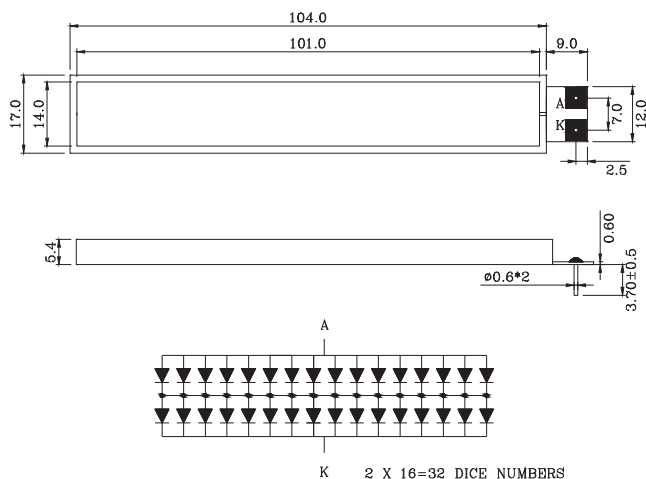
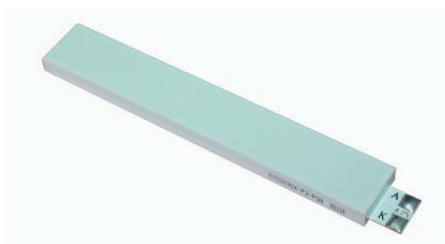
K-02615GX -LCD BACK LIGHT

DISPLAY



Part No	Luminous Area (mm)	Chip		Wave length λ_D (nm)	Electro-optical characteristics		
		Raw Material	Emitted Color		Input Current	$I_v(\text{cd/m}^2)$ Typ.	$V_f(\text{V})$ Typ.
K-02615GX	16.0x66.5mm	GaP	Yellow Green	570	IF=130mA	210	4.2

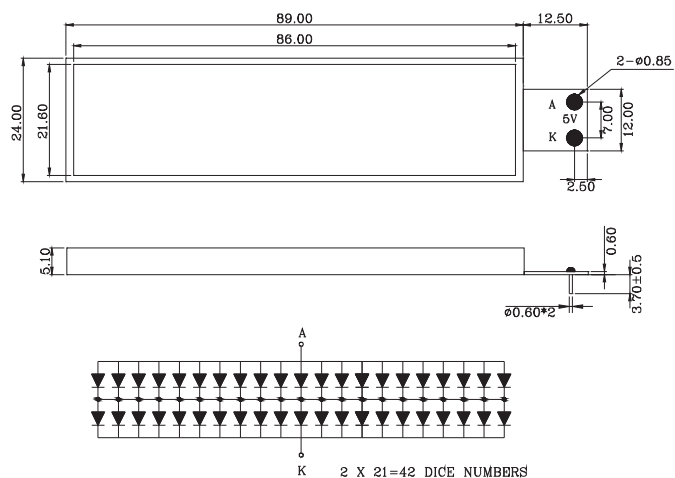
K-03203GX -LCD BACK LIGHT



Part No	Luminous Area (mm)	Chip		Wave length λ_D (nm)	Electro-optical characteristics		
		Raw Material	Emitted Color		Input Current	$I_v(\text{cd/m}^2)$ Typ.	$V_f(\text{V})$ Typ.
K-03203GX	14.0x101.0mm	GaP	Yellow Green	570	IF=160mA	240	4.2

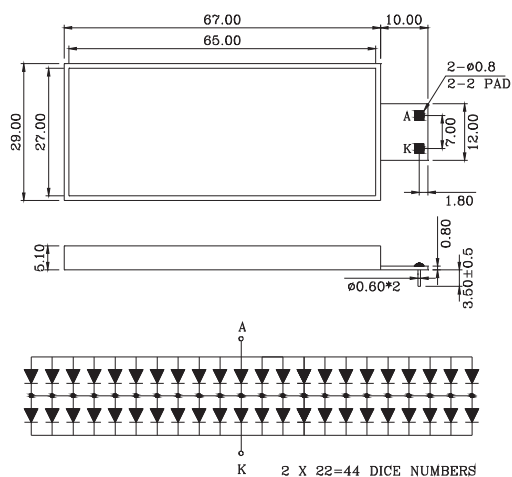
E-02 PARA LIGHT

K-04204GX -LCD BACK LIGHT



Part No	Luminous Area (mm)	Chip		Wave length λD (nm)	Electro-optical characteristics		
		Raw Material	Emitted Color		Input Current	Iv(cd/m²)	Vf(V)
						Typ.	Typ.
K-04204GX	21.6x86.0mm	GaP	 Yellow Green	570	IF=210mA	200	4.2

K-04403GX -LCD BACK LIGHT

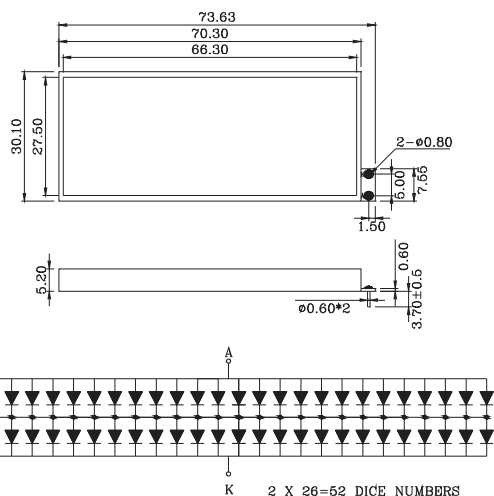
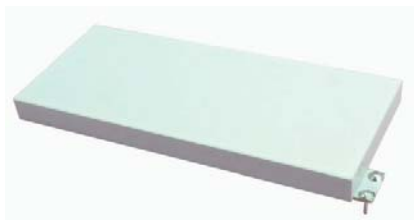


Part No	Luminous Area (mm)	Chip		Wave length λD (nm)	Electro-optical characteristics		
		Raw Material	Emitted Color		Input Current	Iv(cd/m²)	Vf(V)
						Typ.	Typ.
K-04403GX	27.0x65.0mm	GaP	 Yellow Green	570	IF=220mA	230	4.2

DISPLAY

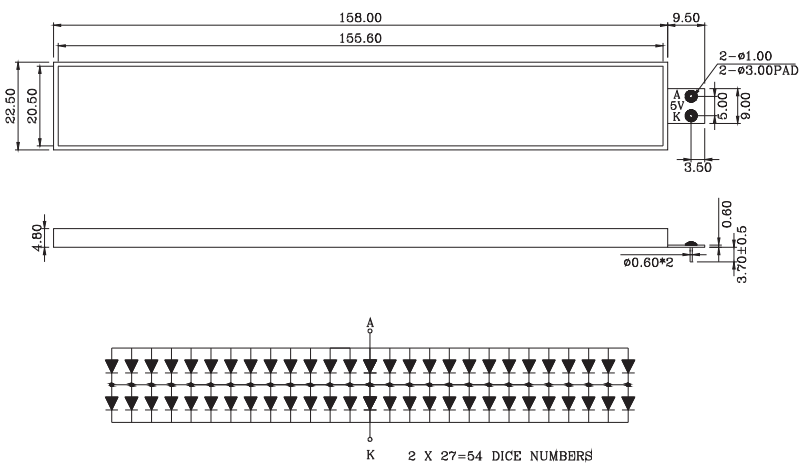
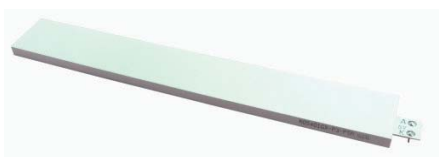
K-05209GX -LCD BACK LIGHT

DISPLAY



Part No	Luminous Area (mm)	Chip		Wave length λ D (nm)	Electro-optical characteristics		
		Raw Material	Emitted Color		Input Current	I_v (cd/m ²) Typ.	V_f (V) Typ.
K-05209GX	27.5x66.3mm	GaP	 Yellow Green	570	IF=260mA	190	4.2

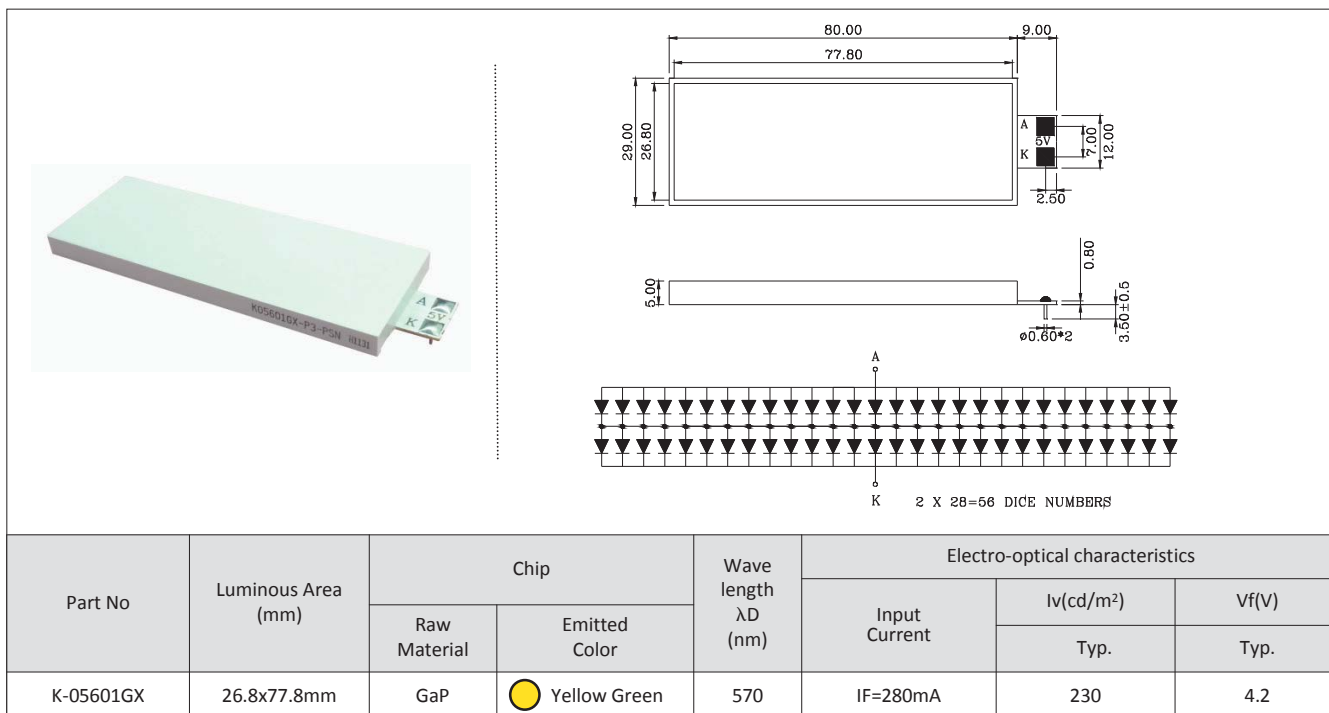
K-05401GX -LCD BACK LIGHT



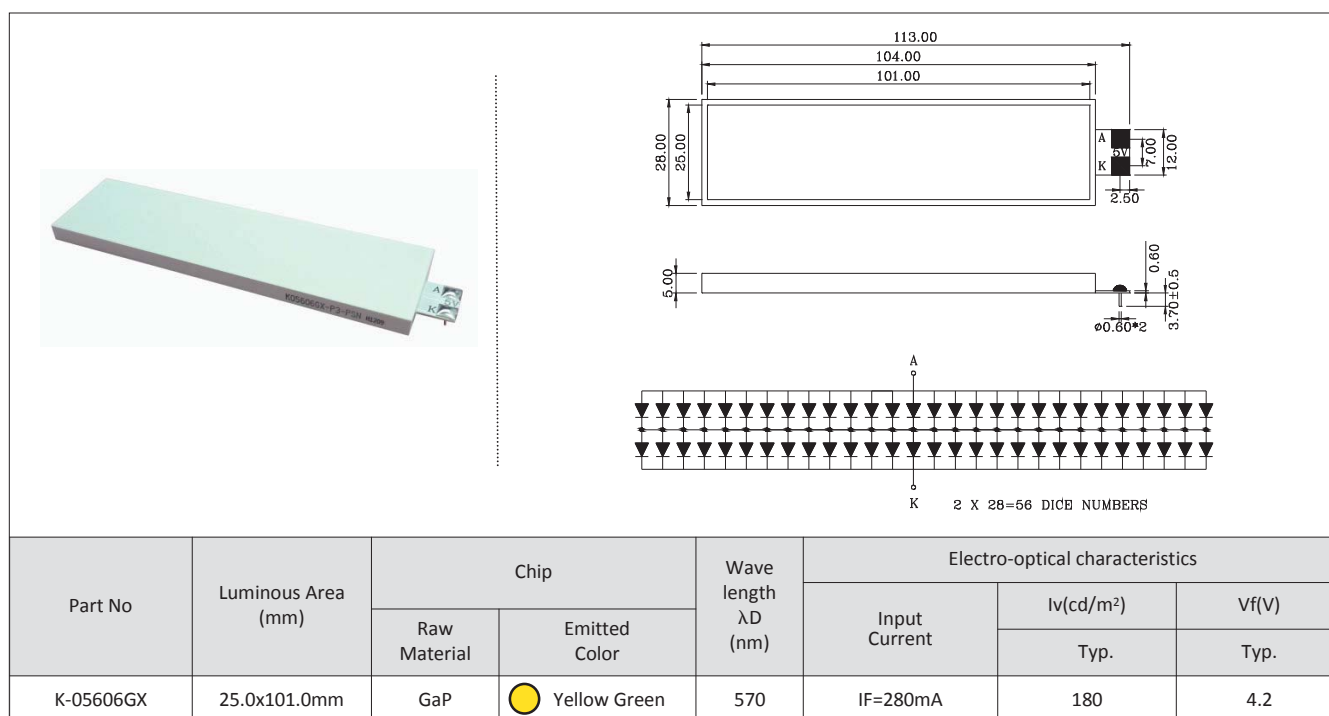
Part No	Luminous Area (mm)	Chip		Wave length λ D (nm)	Electro-optical characteristics		
		Raw Material	Emitted Color		Input Current	I_v (cd/m ²) Typ.	V_f (V) Typ.
K-05401GX	20.5x155.6mm	GaP	 Yellow Green	570	IF=270mA	160	4.2

E-04 PARA LIGHT

K-05601GX -LCD BACK LIGHT



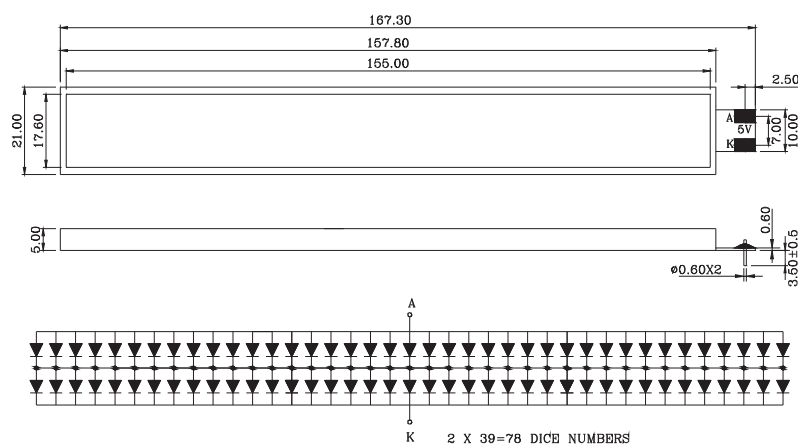
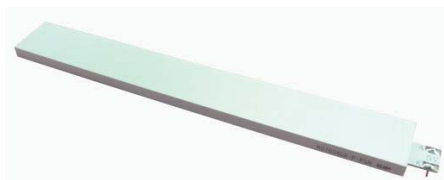
K-05606GX -LCD BACK LIGHT



DISPLAY

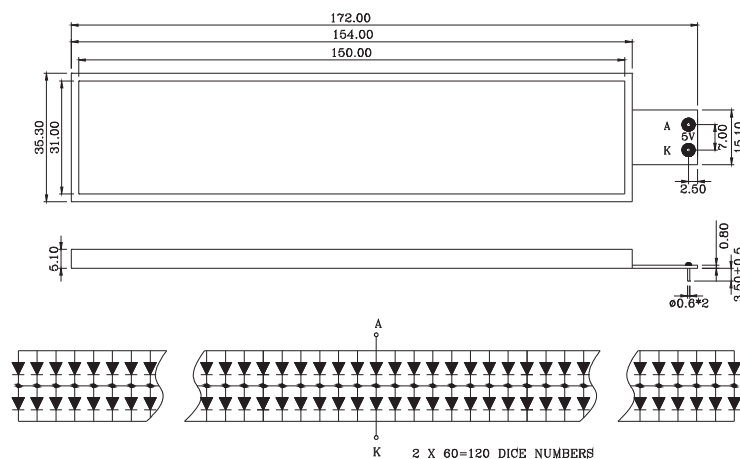
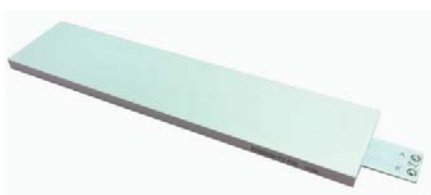
K-07804GX -LCD BACK LIGHT

DISPLAY



Part No	Luminous Area (mm)	Chip		Wave length λD (nm)	Electro-optical characteristics		
		Raw Material	Emitted Color		Input Current	Iv(cd/m²)	Vf(V)
						Typ.	Typ.
K-07804GX	17.6x155.0mm	GaP	 Yellow Green	570	IF=390mA	180	4.2

K-12001GX -LCD BACK LIGHT



Part No	Luminous Area (mm)	Chip		Wave length λD (nm)	Electro-optical characteristics		
		Raw Material	Emitted Color		Input Current	Iv(cd/m²)	Vf(V)
						Typ.	Typ.
K-12001GX	31.0x150.0mm	GaP	 Yellow Green	570	IF=600mA	260	4.2

E-06 PARA LIGHT

C/A-2A1X -SINGLE DIGIT DISPLAY

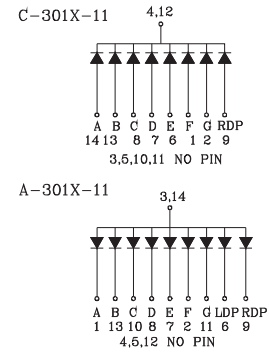
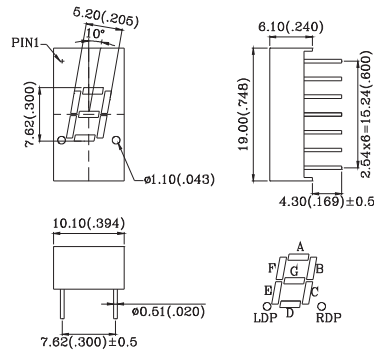
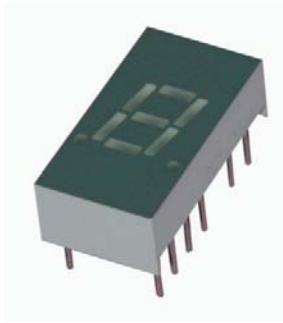
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
							VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color				
C-2A1E	DKC12E999G	A-2A1E	DKA12E995G	GaAsP	 Orange	628	2.1	2.8	1.8
C-2A1G	DKC12G998G	A-2A1G	DKA12G994G	GaAlInP	 Yellow Green	570	2.2	2.8	1.6
C-2A1Y	DKC12Y997G	A-2A1Y	DKA12Y993G	GaAsP	 Yellow	587	2.1	2.8	1.5
C-2A1SR	DKC12SR996G	A-2A1SR	DKA12SR992G	GaAlInP	 Red	640	1.8	2.2	5.0

C/A-301X -SINGLE DIGIT DISPLAY

Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics			
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA	
							Typ.	Max.	Typ.	
C-301E	DKC13E991G	A-301E	DKA13E987G	GaAsP	 Orange	628	2.1	2.8	1.8	
C-301G	DKC13G990G	A-301G	DKA13G986G	GaAlInP	 Yellow Green	570	2.2	2.8	1.8	
C-301Y	DKC13Y989G	A-301Y	DKA13Y985G	GaAsP	 Yellow	587	2.1	2.8	1.5	
C-301SR	DKC13SR988G	A-301SR	DKA13SR984G	GaAlInP	 Red	640	1.8	2.2	5.0	

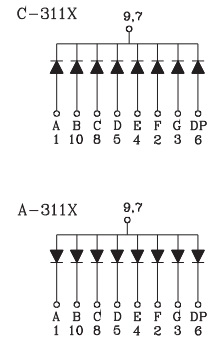
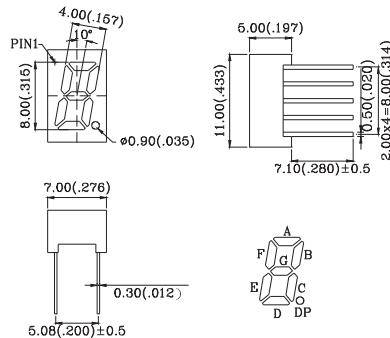
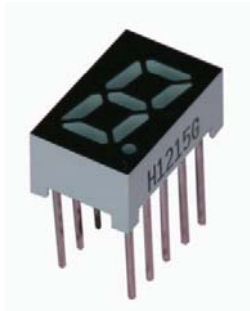
DISPLAY

C/A-301X-11 -SINGLE DIGIT DISPLAY



Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-301E-11	DKC13E983G	A-301E-11	DKA13E979G	GaAsP	 Orange	628	2.1	2.8	1.8
C-301G-11	DKC13G982G	A-301G-11	DKA13G978G	GaAlInP	 Yellow Green	570	2.2	2.8	1.6
C-301Y-11	DKC13Y981G	A-301Y-11	DKA13Y977G	GaAsP	 Yellow	587	2.1	2.8	1.5
C-301SR-11	DKC13SR980G	A-301SR-11	DKA13SR976G	GaAlInP	 Red	640	1.8	2.2	5.0

C/A-311X -SINGLE DIGIT DISPLAY



Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-311E	DKC13E975G	A-311E	DKA13E971G	GaAsP	 Orange	628	2.1	2.8	1.8
C-311G	DKC13G974G	A-311G	DKA13G970G	GaAlInP	 Yellow Green	570	2.2	2.8	1.6
C-311Y	DKC13Y973G	A-311Y	DKA13Y969G	GaAsP	 Yellow	587	2.1	2.8	1.5
C-311SR	DKC13SR972G	A-311SR	DKA13SR968G	GaAlInP	 Red	640	1.8	2.2	5.0

C/A-321X -SINGLE DIGIT DISPLAY

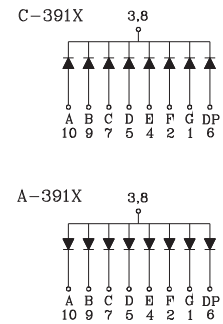
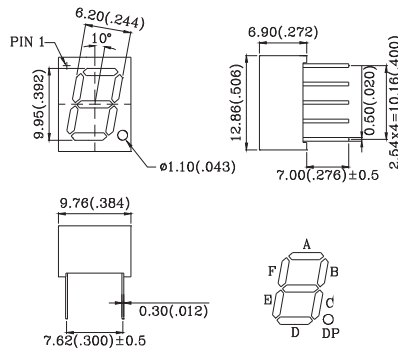
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics			
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA	
							Typ.	Max.		
C-321E	DKC13E967G	A-321E	DKA13E962G	GaAsP	 Orange	628	2.1	2.8	1.8	
C-321G	DKC13G966G	A-321G	DKA13G961G	GaAlInP	 Yellow Green	570	2.2	2.8	1.6	
C-321Y	DKC13Y965G	A-321Y	DKA13Y960G	GaAsP	 Yellow	587	2.1	2.8	1.5	
C-321SR	DKC13SR964G	A-321SR	DKA13SR959G	GaAlInP	 Red	640	1.8	2.2	5.0	
C-321UB	DKC13UB963G	A-321UB	DKA13UB958G	GaInN	 Blue	465	3.5	4.0	10.0	

C/A-361X -SINGLE DIGIT DISPLAY

Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-361E	DKC13E957G	A-361E	DKA13E953G	GaAsP	 Orange	628	2.1	2.8	1.8
C-361G	DKC13G956G	A-361G	DKA13G952G	GaAlInP	 Yellow Green	570	2.2	2.8	1.8
C-361Y	DKC13Y955G	A-361Y	DKA13Y951G	GaAsP	 Yellow	587	2.1	2.8	1.5
C-361SR	DKC13SR954G	A-361SR	DKA13SR950G	GaAlInP	 Red	640	1.8	2.2	5.0

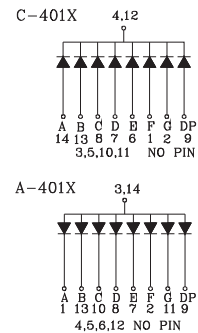
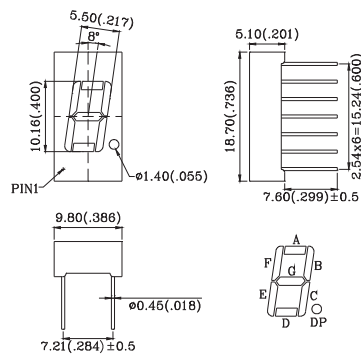
DISPLAY

C/A-391X -SINGLE DIGIT DISPLAY



Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-391E	DKC13E949G	A-391E	DKA13E944G	GaAsP	 Orange	628	2.1	2.8	1.8
C-391G	DKC13G948G	A-391G	DKA13G943G	GaAlInP	 Yellow Green	570	2.2	2.8	1.6
C-391Y	DKC13Y947G	A-391Y	DKA13Y942G	GaAsP	 Yellow	587	2.1	2.8	1.5
C-391SR	DKC13SR946G	A-391SR	DKA13SR941G	GaAlInP	 Red	640	1.8	2.2	5.0
C-391UB	DKC13UB945G	A-391UB	DKA13UB940G	GaInN	 Blue	465	3.5	4.0	10.0

C/A-401X -SINGLE DIGIT DISPLAY

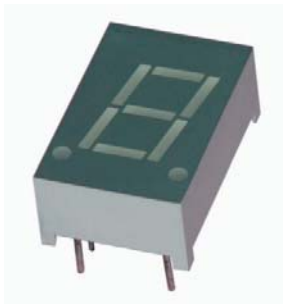
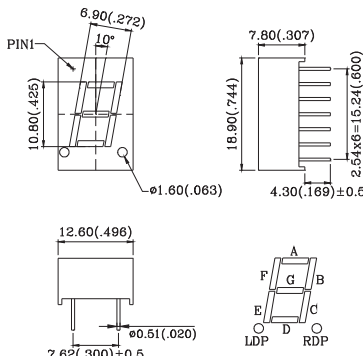
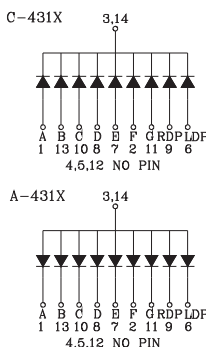


Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
							VF(V)20mA		IV(mcd)10mA
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		Typ.	Max.	Typ.
C-401E	DKC14E939G	A-401E	DKA14E934G	GaAsP	 Orange	628	2.1	2.8	2.0
C-401G	DKC14G938G	A-401G	DKA14G933G	GaAlInP	 Yellow Green	570	2.2	2.8	2.0
C-401Y	DKC14Y937G	A-401Y	DKA14Y932G	GaAsP	 Yellow	587	2.1	2.8	1.6
C-401SR	DKC14SR936G	A-401SR	DKA14SR931G	GaAlInP	 Red	640	1.8	2.2	8.0
C-401UB	DKC14UB935G	A-401UB	DKA14UB930G	GaInN	 Blue	465	3.5	4.0	15.0

C/A-421X -SINGLE DIGIT DISPLAY

Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics			
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA	
							Typ.	Max.		
C-421E	DKC14E929G	A-421E	DKA14E924G	GaAsP	 Orange	628	2.1	2.8	1.8	
C-421G	DKC14G928G	A-421G	DKA14G923G	GaAlInP	 Yellow Green	570	2.2	2.8	1.6	
C-421Y	DKC14Y927G	A-421Y	DKA14Y922G	GaAsP	 Yellow	587	2.1	2.8	1.5	
C-421SR	DKC14SR926G	A-421SR	DKA14SR921G	GaAlInP	 Red	640	1.8	2.2	10.0	
C-421UB	DKC14UB925G	A-421UB	DKA14UB920G	GaInN	 Blue	465	3.5	4.0	10.0	

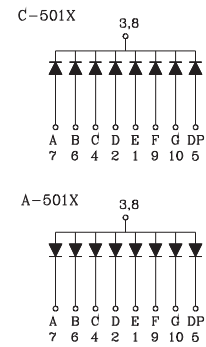
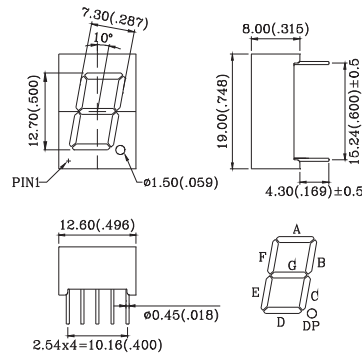
C/A-431X -SINGLE DIGIT DISPLAY

									
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-431E	DKC14E919G	A-431E	DKA14E915G	GaAsP	 Orange	628	2.1	2.8	2.0
C-431G	DKC14G918G	A-431G	DKA14G914G	GaAlInP	 Yellow Green	570	2.2	2.8	2.0
C-431Y	DKC14Y917G	A-431Y	DKA14Y913G	GaAsP	 Yellow	587	2.1	2.8	1.6
C-431SR	DKC14SR916G	A-431SR	DKA14SR912G	GaAlInP	 Red	640	1.8	2.2	10.0

DISPLAY

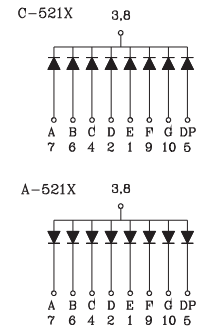
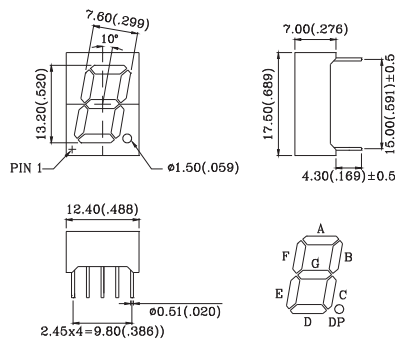
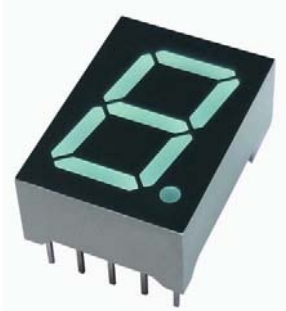
C/A-501X -SINGLE DIGIT DISPLAY

DISPLAY



Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-501E	DKC15E911G	A-501E	DKA15E906G	GaAsP	 Orange	628	2.1	2.8	2.0
C-501G	DKC15G910G	A-501G	DKA15G905G	GaAlInP	 Yellow Green	570	2.2	2.8	2.0
C-501Y	DKC15Y909G	A-501Y	DKA15Y904G	GaAsP	 Yellow	587	2.1	2.8	1.6
C-501SR	DKC15SR908G	A-501SR	DKA15SR903G	GaAlInP	 Red	640	1.8	2.2	21.0
C-501UB	DKC15UB907G	A-501UB	DKA15UB902G	GaInN	 Blue	465	3.5	4.0	28.0

C/A-521X -SINGLE DIGIT DISPLAY



Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-521E	DKC15E901G	A-521E	DKA15E896G	GaAsP	 Orange	628	2.1	2.8	2.0
C-521G	DKC15G900G	A-521G	DKA15G895G	GaAlInP	 Yellow Green	570	2.2	2.8	2.0
C-521Y	DKC15Y899G	A-521Y	DKA15Y894G	GaAsP	 Yellow	587	2.1	2.8	1.6
C-521SR	DKC15SR898G	A-521SR	DKA15SR893G	GaAlInP	 Red	640	1.8	2.2	21.0
C-521UB	DKC15UB897G	A-521UB	DKA15UB892G	GaInN	 Blue	465	3.5	4.0	28.0

C/A-551X -SINGLE DIGIT DISPLAY

C-551X

A B C D E F G DP
7 6 4 2 1 9 10 5

A-551X

A B C D E F G DP
7 6 4 2 1 9 10 5

Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics			
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA	
							Typ.	Max.		
C-551E	DKC15E891G	A-551E	DKA15E886G	GaAsP	 Orange	628	2.1	2.8	2.0	
C-551G	DKC15G890G	A-551G	DKA15G885G	GaAlInP	 Yellow Green	570	2.2	2.8	2.0	
C-551Y	DKC15Y889G	A-551Y	DKA15Y884G	GaAsP	 Yellow	587	2.1	2.8	1.6	
C-551SR	DKC15SR888G	A-551SR	DKA15SR883G	GaAlInP	 Red	640	1.8	2.2	21.0	
C-551UB	DKC15UB887G	A-551UB	DKA15UB882G	GaInN	 Blue	465	3.5	4.0	28.0	

C/A-561X -SINGLE DIGIT DISPLAY

Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-561E	DKC15E881G	A-561E	DKA15E876G	GaAsP	 Orange	628	2.1	2.8	2.0
C-561G	DKC15G880G	A-561G	DKA15G875G	GaAlInP	 Yellow Green	570	2.2	2.8	2.0
C-561Y	DKC15Y879G	A-561Y	DKA15Y874G	GaAsP	 Yellow	587	2.1	2.8	1.6
C-561SR	DKC15SR878G	A-561SR	DKA15SR873G	GaAlInP	 Red	640	1.8	2.2	21.0
C-561UB	DKC15UB877G	A-561UB	DKA15UB872G	GaInN	 Blue	465	3.5	4.0	33.0

C/A-601X -SINGLE DIGIT DISPLAY

Common Cathode		Common Anode		Chip		Wave length λ_D (nm)	Electro-optical characteristics			
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA	
							Typ.	Max.	Typ.	
C-601E	DKC16E871G	A-601E	DKA16E867G	GaAsP	 Orange	628	2.1	2.8	3.0	
C-601G	DKC16G870G	A-601G	DKA16G866G	GaAlInP	 Yellow Green	570	2.2	2.8	3.0	
C-601Y	DKC16Y869G	A-601Y	DKA16Y865G	GaAsP	 Yellow	587	2.1	2.8	3.0	
C-601SR	DKC16SR868G	A-601SR	DKA16SR864G	GaAlInP	 Red	640	1.8	2.2	21.0	

C/A-801X -SINGLE DIGIT DISPLAY

Common Cathode		Common Anode		Chip		Wave length λ_D (nm)	Electro-optical characteristics			
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA	
							Typ.	Max.	Typ.	
C-801E	DKC18E863G	A-801E	DKA18E859G	GaAsP	 Orange	628	2.1	2.8	3.0	
C-801G	DKC18G862G	A-801G	DKA18G858G	GaAlInP	 Yellow Green	570	2.2	2.8	3.0	
C-801Y	DKC18Y861G	A-801Y	DKA18Y857G	GaAsP	 Yellow	587	2.1	2.8	2.5	
C-801SR	DKC18SR860G	A-801SR	DKA18SR856G	GaAlInP	 Red	640	1.8	2.2	21.0	

C/A-811X -SINGLE DIGIT DISPLAY

Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics			
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA	
							Typ.	Max.	Typ.	
C-811E	DKC18E855G	A-811E	DKA18E851G	GaAsP	 Orange	628	2.1	2.8	3.0	
C-811G	DKC18G854G	A-811G	DKA18G850G	GaAlInP	 Yellow Green	570	2.2	2.8	3.0	
C-811Y	DKC18Y853G	A-811Y	DKA18Y849G	GaAsP	 Yellow	587	2.1	2.8	3.0	
C-811SR	DKC18SR852G	A-811SR	DKA18SR848G	GaAlInP	 Red	640	1.8	2.2	21.0	

C/A-1001X -SINGLE DIGIT DISPLAY

Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-1001E	DKC1AE847G	A-1001E	DKA1AE842G	GaAsP	 Orange	628	4.2(2.1)	5.6(2.8)	4.2
C-1001G	DKC1AG846G	A-1001G	DKA1AG841G	GaAlInP	 Yellow Green	570	4.4(2.2)	5.6(2.8)	4.0
C-1001Y	DKC1AY845G	A-1001Y	DKA1AY840G	GaAsP	 Yellow	587	4.2(2.1)	5.6(2.8)	3.0
C-1001SR	DKC1ASR844G	A-1001SR	DKA1ASR839G	GaAlInP	 Red	640	3.6(1.8)	4.4(2.2)	40.0
C-1001UB	DKC1AUB843G	A-1001UB	DKA1AUB838G	GaInN	 Blue	465	7.0(3.5)	8.0(4.0)	52.0

C/A-1021X -SINGLE DIGIT DISPLAY

Common Cathode		Common Anode		Chip		Wave length λ_D (nm)	Electro-optical characteristics			
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA	
							Typ.	Max.	Typ.	
C-1021E	DKC1AE837G	A-1021E	DKA1AE832G	GaAsP	 Orange	628	4.2(2.1)	5.6(2.8)	4.2	
C-1021G	DKC1AG836G	A-1021G	DKA1AG831G	GaAlInP	 Yellow Green	570	4.4(2.2)	5.6(2.8)	4.0	
C-1021Y	DKC1AY835G	A-1021Y	DKA1AY830G	GaAsP	 Yellow	587	4.2(2.1)	5.6(2.8)	3.2	
C-1021SR	DKC1ASR834G	A-1021SR	DKA1ASR829G	GaAlInP	 Red	640	3.6(1.8)	4.4(2.2)	40.0	
C-1021UB	DKC1AUB833G	A-1021UB	DKA1AUB828G	GaInN	 Blue	465	7.0(3.5)	8.0(4.0)	52.0	

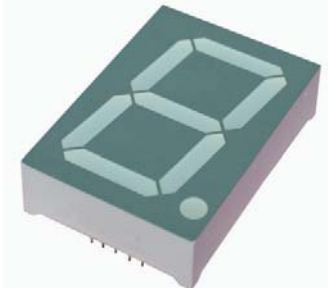
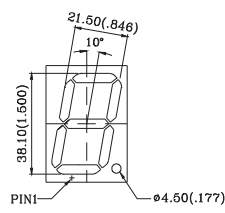
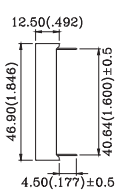
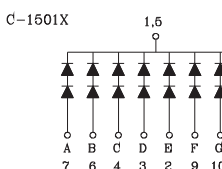
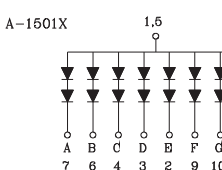
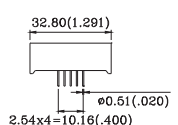
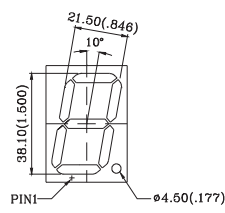
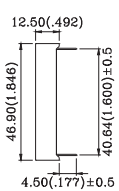
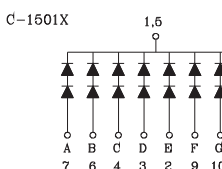
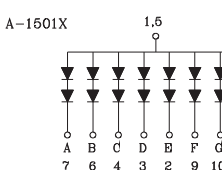
C/A-1061X -SINGLE DIGIT DISPLAY

Common Cathode		Common Anode		Chip		Wave length λ_D (nm)	Electro-optical characteristics			
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA	
							Typ.	Max.	Typ.	
C-1061E	DKC1AE827G	A-1061E	DKA1AE823G	GaAsP	 Orange	628	2.1	2.8	4.2	
C-1061G	DKC1AG826G	A-1061G	DKA1AG822G	GaAlInP	 Yellow Green	570	2.2	2.8	4.0	
C-1061Y	DKC1AY825G	A-1061Y	DKA1AY821G	GaAsP	 Yellow	587	2.1	2.8	3.2	
C-1061SR	DKC1ASR824G	A-1061SR	DKA1ASR820G	GaAlInP	 Red	640	1.8	2.2	40.0	

C/A-1201X -SINGLE DIGIT DISPLAY

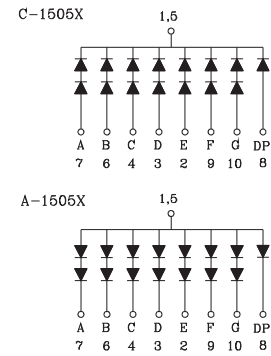
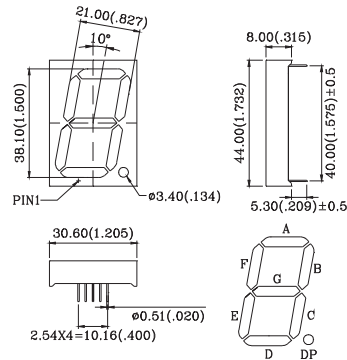
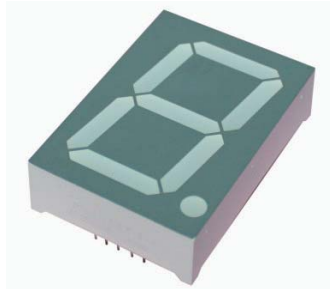
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-1201E	DKC1AE819G	A-1201E	DKA1AE814G	GaAsP	 Orange	628	4.2(2.1)	5.6(2.8)	4.2
C-1201G	DKC1AG818G	A-1201G	DKA1AG813G	GaAlInP	 Yellow Green	570	4.4(2.2)	5.6(2.8)	4.0
C-1201Y	DKC1AY817G	A-1201Y	DKA1AY812G	GaAsP	 Yellow	587	4.2(2.1)	5.6(2.8)	3.0
C-1201SR	DKC1ASR816G	A-1201SR	DKA1ASR811G	GaAlInP	 Red	640	3.6(1.8)	4.4(2.2)	40.0
C-1201UB	DKC1AUB815G	A-1201UB	DKA1AUB810G	GaInN	 Blue	465	7.0(3.5)	8.0(4.0)	48.0

C/A-1501X -SINGLE DIGIT DISPLAY

										
										
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics			
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA	
							Typ.	Max.	Typ.	
C-1501E	DKC1AE809G	A-1501E	DKA1AE805G	GaAsP	 Orange	628	4.2(2.1)	5.6(2.8)	4.2	
C-1501G	DKC1AG808G	A-1501G	DKA1AG804G	GaAlInP	 Yellow Green	570	4.4(2.2)	5.6(2.8)	4.0	
C-1501Y	DKC1AY807G	A-1501Y	DKA1AY803G	GaAsP	 Yellow	587	4.2(2.1)	5.6(2.8)	3.2	
C-1501SR	DKC1ASR806G	A-1501SR	DKA1ASR802G	GaAlInP	 Red	640	3.6(1.8)	4.4(2.2)	40.0	

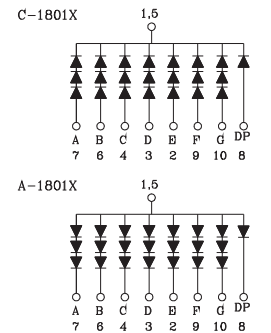
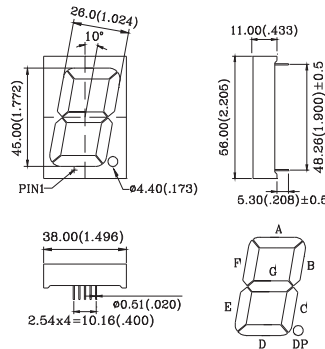
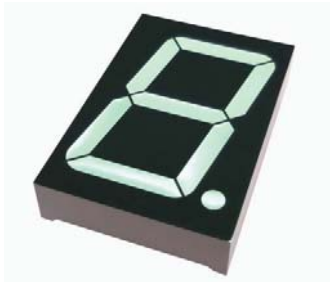
DISPLAY

C/A-1505X -SINGLE DIGIT DISPLAY



Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-1505E	DKC1AE801G	A-1505E	DKA1AE797G	GaAsP	 Orange	628	4.2(2.1)	5.6(2.8)	4.2
C-1505G	DKC1AG800G	A-1505G	DKA1AG796G	GaAlInP	 Yellow Green	570	4.4(2.2)	5.6(2.8)	4.0
C-1505Y	DKC1AY799G	A-1505Y	DKA1AY795G	GaAsP	 Yellow	587	4.2(2.1)	5.6(2.8)	3.2
C-1505SR	DKC1ASR798G	A-1505SR	DKA1ASR794G	GaAlInP	 Red	640	3.6(1.8)	4.4(2.2)	40.0

C/A-1801X -SINGLE DIGIT DISPLAY

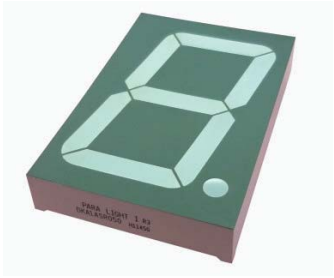
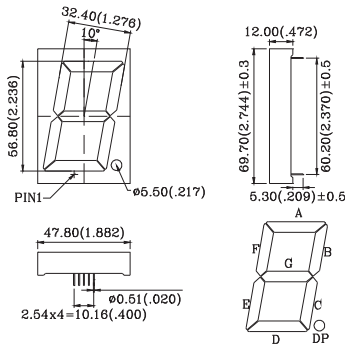
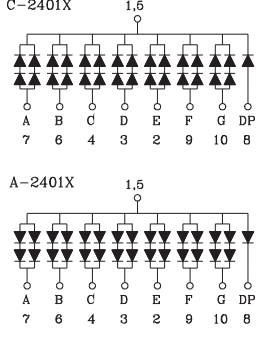


Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-1801E	DKC1AE793G	A-1801E	DKA1AE788G	GaAsP	 Orange	628	6.3(2.1)	8.4(2.8)	5.6
C-1801G	DKC1AG792G	A-1801G	DKA1AG787G	GaAlInP	 Yellow Green	570	6.6(2.2)	8.4(2.8)	5.2
C-1801Y	DKC1AY791G	A-1801Y	DKA1AY786G	GaAsP	 Yellow	587	6.3(2.1)	8.4(2.8)	5.2
C-1801SR	DKC1ASR790G	A-1801SR	DKA1ASR785G	GaAlInP	 Red	640	5.4(1.8)	6.6(2.2)	40.0
C-1801UB	DKC1AUB789G	A-1801UB	DKA1AUB784G	GaInN	 Blue	465	10.5(3.5)	12.0(4.0)	52.0

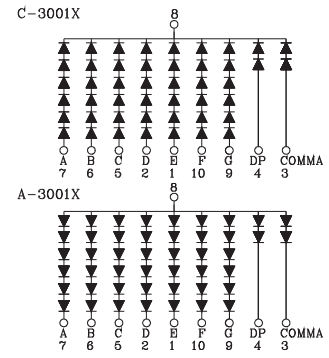
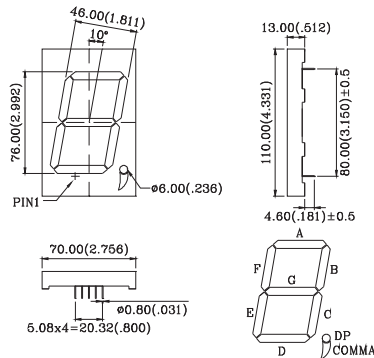
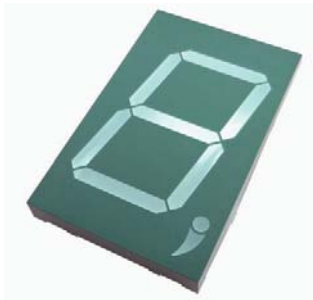
C/A-2301X -SINGLE DIGIT DISPLAY

Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics			
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA	
							Typ.	Max.		
C-2301E	DKC1AE783G	A-2301E	DKA1AE778G	GaAsP	 Orange	628	8.4(4.2)	11.2(5.6)	5.5	
C-2301G	DKC1AG782G	A-2301G	DKA1AG777G	GaAlInP	 Yellow Green	570	8.8(4.4)	11.2(5.6)	5.5	
C-2301Y	DKC1AY781G	A-2301Y	DKA1AY776G	GaAsP	 Yellow	587	8.4(4.2)	11.2(5.6)	5.4	
C-2301SR	DKC1ASR780G	A-2301SR	DKA1ASR775G	GaAlInP	 Red	640	7.2(3.6)	8.8(4.4)	50.0	
C-2301UB	DKC1AUB779G	A-2301UB	DKA1AUB774G	GaInN	 Blue	465	14.0(7.0)	16.0(8.0)	56.0	

C/A-2401X -SINGLE DIGIT DISPLAY

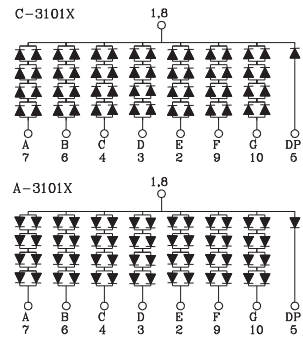
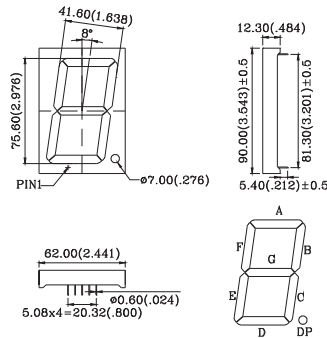
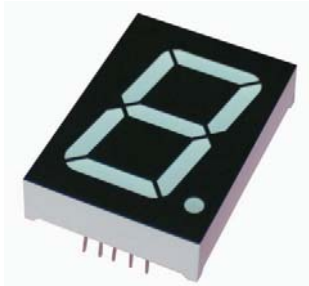
										
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics			
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA	
							Typ.	Max.	Typ.	
C-2401E	DKC1AE773G	A-2401E	DKA1AE769G	GaAsP	 Orange	628	4.2(2.1)	5.6(2.8)	5.5	
C-2401G	DKC1AG772G	A-2401G	DKA1AG768G	GaAlInP	 Yellow Green	570	4.4(2.2)	5.6(2.8)	5.5	
C-2401Y	DKC1AY771G	A-2401Y	DKA1AY767G	GaAsP	 Yellow	587	4.2(2.1)	5.6(2.8)	5.4	
C-2401SR	DKC1ASR770G	A-2401SR	DKA1ASR766G	GaAlInP	 Red	640	3.6(1.8)	4.4(2.2)	50.0	

C/A-3001X -SINGLE DIGIT DISPLAY



Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-3001E	DKC1AE765G	A-3001E	DKA1AE760G	GaAsP	 Orange	628	12.6(4.2)	16.8(5.6)	6.0
C-3001G	DKC1AG764G	A-3001G	DKA1AG759G	GaAlInP	 Yellow Green	570	13.2(4.4)	16.8(5.6)	5.4
C-3001Y	DKC1AY763G	A-3001Y	DKA1AY758G	GaAsP	 Yellow	587	12.6(4.2)	16.8(5.6)	5.4
C-3001SR	DKC1ASR762G	A-3001SR	DKA1ASR757G	GaAlInP	 Red	640	10.8(3.6)	13.2(4.4)	42.0
C-3001UB	DKC1AUB761G	A-3001UB	DKA1AUB756G	GaInN	 Blue	465	21.0(7.0)	24.0(8.0)	56.0

C/A-3101X -SINGLE DIGIT DISPLAY

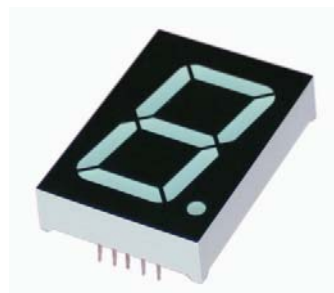
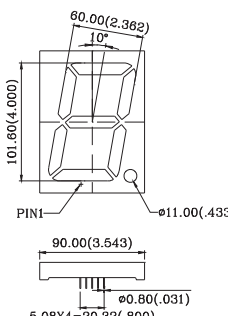
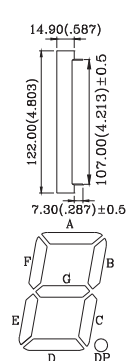
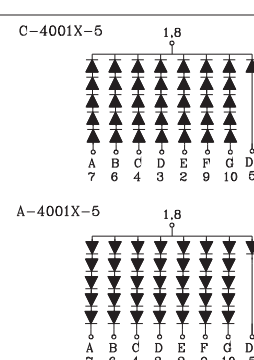


Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-3101E	DKC1AE755G	A-3101E	DKA1AE751G	GaAsP	 Orange	628	8.4(2.1)	11.2(2.8)	9.0
C-3101G	DKC1AG754G	A-3101G	DKA1AG750G	GaAlInP	 Yellow Green	570	8.8(2.2)	11.2(2.8)	8.0
C-3101Y	DKC1AY753G	A-3101Y	DKA1AY749G	GaAsP	 Yellow	587	8.4(2.1)	11.2(2.8)	8.0
C-3101SR	DKC1ASR752G	A-3101SR	DKA1ASR748G	GaAlInP	 Red	640	7.2(1.8)	8.8(2.2)	50.0

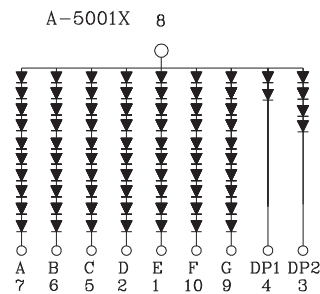
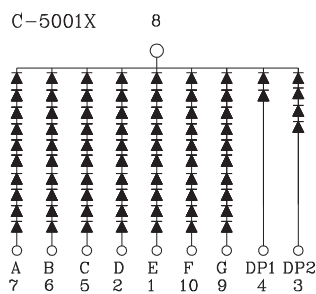
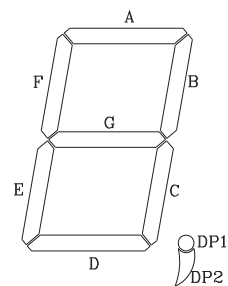
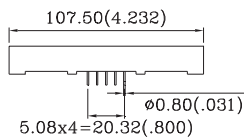
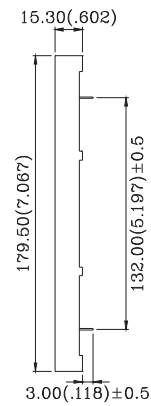
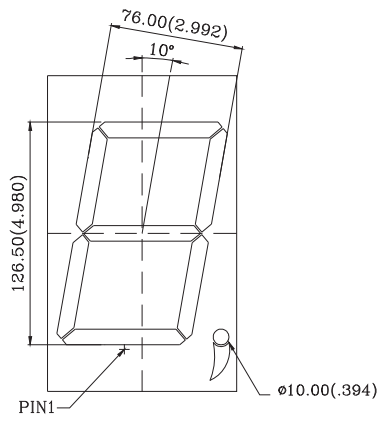
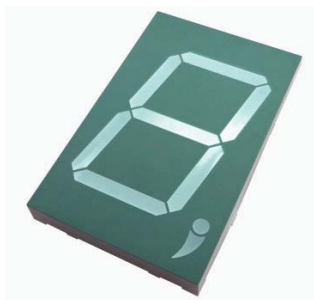
C/A-4001X -SINGLE DIGIT DISPLAY

Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics			
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA	
							Typ.	Max.		
C-4001E	DKC1AE747G	A-4001E	DKA1AE742G	GaAsP	 Orange	628	8.4(2.1)	11.2(2.8)	12.0	
C-4001G	DKC1AG746G	A-4001G	DKA1AG741G	GaAlInP	 Yellow Green	570	8.8(2.2)	11.2(2.8)	9.0	
C-4001Y	DKC1AY745G	A-4001Y	DKA1AY740G	GaAsP	 Yellow	587	8.4(2.1)	11.2(2.8)	9.0	
C-4001SR	DKC1ASR744G	A-4001SR	DKA1ASR739G	GaAlInP	 Red	640	7.2(1.8)	8.8(2.2)	60.0	
C-4001UB	DKC1AUB743G	A-4001UB	DKA1AUB738G	GaInN	 Blue	465	14.0(3.5)	16.0(4.0)	80.0	

C/A-4001X-5 -SINGLE DIGIT DISPLAY

									
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-4001E-5	DKC1AE737G	A-4001E-5	DKA1AE732G	GaAsP	 Orange	628	10.5(2.1)	14.0(2.8)	12.0
C-4001G-5	DKC1AG736G	A-4001G-5	DKA1AG731G	GaAlInP	 Yellow Green	570	11.0(2.2)	14.0(2.8)	9.0
C-4001Y-5	DKC1AY735G	A-4001Y-5	DKA1AY730G	GaAsP	 Yellow	587	10.5(2.1)	14.0(2.8)	9.0
C-4001SR-5	DKC1ASR734G	A-4001SR-5	DKA1ASR729G	GaAlInP	 Red	640	9.0(1.8)	11.0(2.2)	50.0
C-4001UB-5	DKC1AUB733G	A-4001UB-5	DKA1AUB728G	GaInN	 Blue	465	17.5(3.5)	20.0(4.0)	80.0

C/A-5001X -SINGLE DIGIT DISPLAY



Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-5001E	DKC1AE727G	A-5001E	DKA1AE723G	GaAsP	 Orange	628	21.0(4.2,6.3)	28.0(5.6,8.4)	35.0
C-5001G	DKC1AG726G	A-5001G	DKA1AG722G	GaAlInP	 Yellow Green	570	22.0(4.4,6.6)	28.0(5.6,8.4)	30.0
C-5001Y	DKC1AY725G	A-5001Y	DKA1AY721G	GaAsP	 Yellow	587	21.0(4.2,6.3)	28.0(5.6,8.4)	30.0
C-5001SR	DKC1ASR724G	A-5001SR	DKA1ASR720G	GaAlInP	 Red	640	18.0(3.6,5.4)	22.0(4.4,4.6)	60.0

C/A-302X -DUAL DIGITS DISPLAY

Top view dimensions: 4.00(.157) 10° 7.62(.300) PIN1 6.30(.248) ø1.10(.043) 15.50(.610) 2.54x4=10.16(.400) ø0.51(.020)

Side view dimensions: 7.20(.283) 15.00(.591) 4.30(.169)±0.5 10.16(.400)±0.5

Pinout diagram: DIG.1 DIG.2 F G B C D DP

C-302X Pinout: 10 DIG 1 5 DIG 2 A B C D E F G DP 3 9 8 6 7 4 1 2

A-302X Pinout: 10 DIG 1 5 DIG 2 A B C D E F G DP 3 9 8 6 7 4 1 2

Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-302E	DKC23E719G	A-302E	DKA23E715G	GaAsP	 Orange	628	2.1	2.8	1.8
C-302G	DKC23G718G	A-302G	DKA23G714G	GaAlInP	 Yellow Green	570	2.2	2.8	1.6
C-302Y	DKC23Y717G	A-302Y	DKA23Y713G	GaAsP	 Yellow	587	2.1	2.8	1.5
C-302SR	DKC23SR716G	A-302SR	DKA23SR712G	GaAlInP	 Red	640	1.8	2.2	5.0

C/A-362X -DUAL DIGITS DISPLAY

Top view dimensions: 4.80(.189) 5° 9.20(.362) PIN1 7.50(.295) 1.00(.039) 15.00(.590) 2.64x4=10.16(.400) 0.51(.020)

Side view dimensions: 7.20(.283) 14.10(.555) 4.00(.157)±0.5 10.16(.400)±0.5

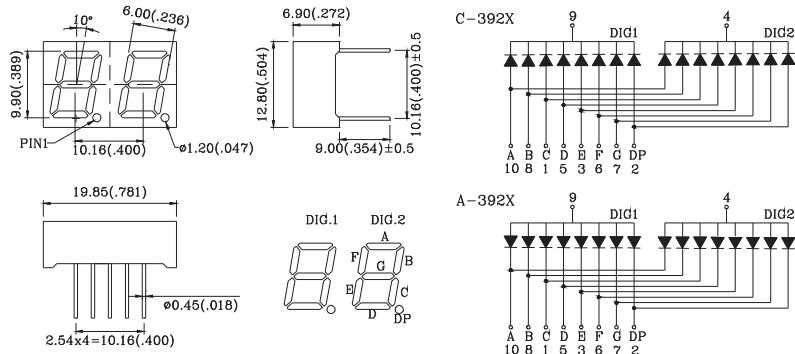
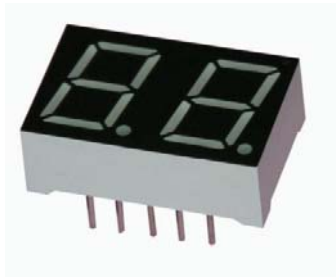
C-362X Pinout: 10 DIG 1 5 DIG 2. Pins: A, B, C, D, E, F, G, DP, 3, 9, 8, 6, 7, 4, 1, 2.

A-362X Pinout: 10 DIG 1 5 DIG 2. Pins: A, B, C, D, E, F, G, DP, 3, 9, 8, 6, 7, 4, 1, 2.

Common Cathode		Common Anode		Chip		Wave length λ_D (nm)	Electro-optical characteristics			
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA	
							Typ.	Max.		
C-362E	DKC23E711G	A-362E	DKA23E706G	GaAsP	Orange	628	2.1	2.8	1.8	
C-362G	DKC23G710G	A-362G	DKA23G705G	GaAlInP	Yellow Green	570	2.2	2.8	1.6	
C-362Y	DKC23Y709G	A-362Y	DKA23Y704G	GaAsP	Yellow	587	2.1	2.8	1.5	
C-362SR	DKC23SR708G	A-362SR	DKA23SR703G	GaAlInP	Red	640	1.8	2.2	5.0	
C-362UB	DKC23UB707G	A-362UB	DKA23UB702G	GaInN	Blue	465	3.5	4.0	10.0	

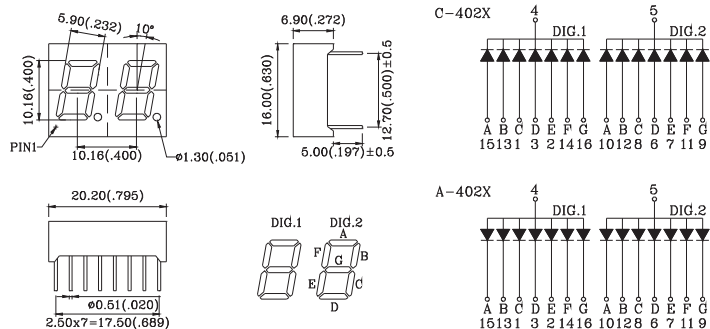
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C/A-392X -DUAL DIGITS DISPLAY



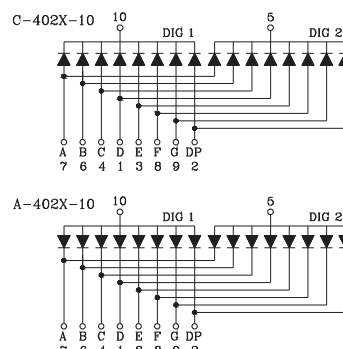
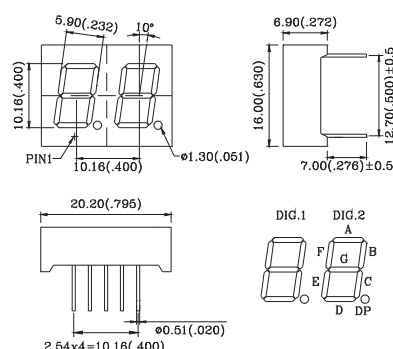
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-392E	DKC23E701G	A-392E	DKA23E696G	GaAsP	 Orange	628	2.1	2.8	1.8
C-392G	DKC23G700G	A-392G	DKA23G695G	GaAlInP	 Yellow Green	570	2.2	2.8	1.6
C-392Y	DKC23Y699G	A-392Y	DKA23Y694G	GaAsP	 Yellow	587	2.1	2.8	1.5
C-392SR	DKC23SR698G	A-392SR	DKA23SR693G	GaAlInP	 Red	640	1.8	2.2	8.0
C-392UB	DKC23UB697G	A-392UB	DKA23UB692G	GaInN	 Blue	465	3.5	4.0	10.0

C/A-402X -DUAL DIGITS DISPLAY



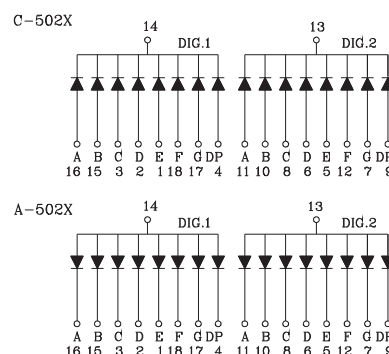
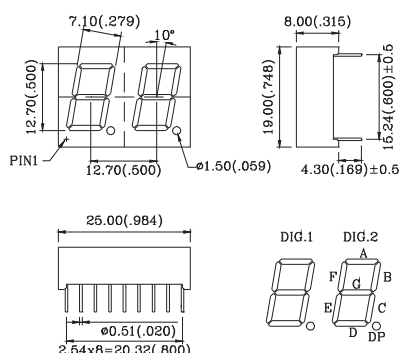
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
							VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color				
C-402E	DKC24E691G	A-402E	DKA24E686G	GaAsP	 Orange	628	2.1	2.8	2.0
C-402G	DKC24G690G	A-402G	DKA24G685G	GaAlInP	 Yellow Green	570	2.2	2.8	2.0
C-402Y	DKC24Y689G	A-402Y	DKA24Y684G	GaAsP	 Yellow	587	2.1	2.8	1.6
C-402SR	DKC24SR688G	A-402SR	DKA24SR683G	GaAlInP	 Red	640	1.8	2.2	10.0
C-402UB	DKC24UB687G	A-402UB	DKA24UB682G	GaInN	 Blue	465	3.5	4.0	15.0

C/A-402X-10 -DUAL DIGITS DISPLAY



Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-402E-10	DKC24E681G	A-402E-10	DKA24E676G	GaAsP	 Orange	628	2.1	2.8	2.0
C-402G-10	DKC24G680G	A-402G-10	DKA24G675G	GaAlInP	 Yellow Green	570	2.2	2.8	2.0
C-402Y-10	DKC24Y679G	A-402Y-10	DKA24Y674G	GaAsP	 Yellow	587	2.1	2.8	1.6
C-402SR-10	DKC24SR678G	A-402SR-10	DKA24SR673G	GaAlInP	 Red	640	1.8	2.2	10.0
C-402UB-10	DKC24UB677G	A-402UB-10	DKA24UB672G	GaInN	 Blue	465	3.5	4.0	15.0

C/A-502X -DUAL DIGITS DISPLAY



Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-502E	DKC25E671G	A-502E	DKA25E666G	GaAsP	 Orange	628	2.1	2.8	2.0
C-502G	DKC25G670G	A-502G	DKA25G665G	GaAlInP	 Yellow Green	570	2.2	2.8	2.0
C-502Y	DKC25Y669G	A-502Y	DKA25Y664G	GaAsP	 Yellow	587	2.1	2.8	1.6
C-502SR	DKC25SR668G	A-502SR	DKA25SR663G	GaAlInP	 Red	640	1.8	2.2	21.0
C-502UB	DKC25UB667G	A-502UB	DKA25UB662G	GaInN	 Blue	465	3.5	4.0	28.0

DISPLAY



DISPLAY

DISPLAY



DISPLAY

C/A-552X -DUAL DIGITS DISPLAY

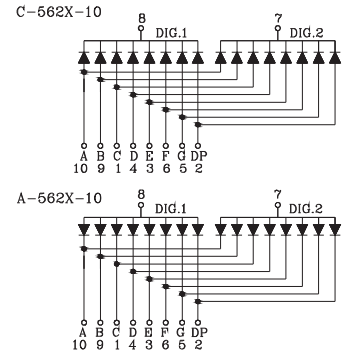
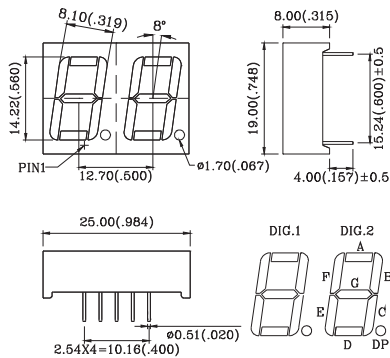
Common Cathode		Common Anode		Chip		Wave length λ_D (nm)	Electro-optical characteristics			
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA	
							Typ.	Max.		
C-552E	DKC25E643G	A-552E	DKA25E639G	GaAsP	 Orange	628	2.1	2.8	2.0	
C-552G	DKC25G642G	A-552G	DKA25G638G	GaAlInP	 Yellow Green	570	2.2	2.8	2.0	
C-552Y	DKC25Y641G	A-552Y	DKA25Y637G	GaAsP	 Yellow	587	2.1	2.8	1.6	
C-552SR	DKC25SR640G	A-552SR	DKA25SR636G	GaAlInP	 Red	640	1.8	2.2	21.0	

C/A-562X -DUAL DIGITS DISPLAY

Common Cathode		Common Anode		Chip		Wave length λ_D (nm)	Electro-optical characteristics			
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA	
							Typ.	Max.		
C-562E	DKC25E635G	A-562E	DKA25E630G	GaAsP	Orange	628	2.1	2.8	2.0	
C-562G	DKC25G634G	A-562G	DKA25G629G	GaAlInP	Yellow Green	570	2.2	2.8	2.0	
C-562Y	DKC25Y633G	A-562Y	DKA25Y628G	GaAsP	Yellow	587	2.1	2.8	1.6	
C-562SR	DKC25SR632G	A-562SR	DKA25SR627G	GaAlInP	Red	640	1.8	2.2	21.0	
C-562UB	DKC25UB631G	A-562UB	DKA25UB626G	GaInN	Blue	465	3.5	4.0	28.0	

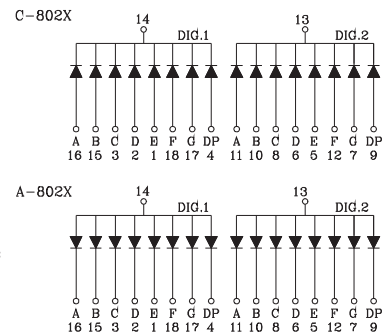
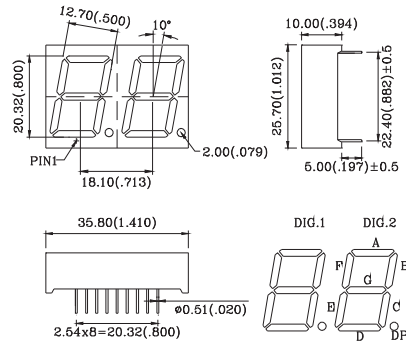
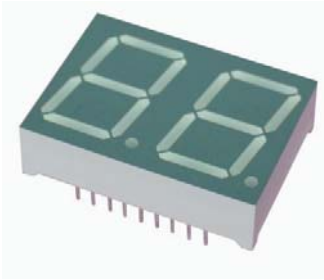
DISPLAY

C/A-562X-10 -DUAL DIGITS DISPLAY



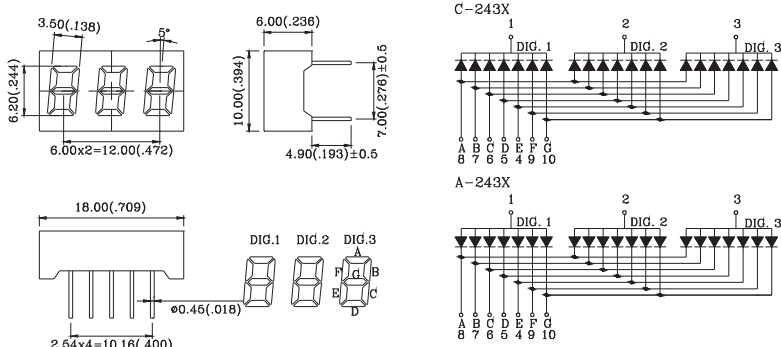
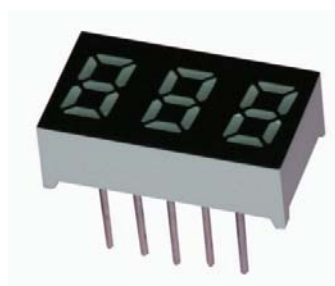
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-562E-10	DKC25E625G	A-562E-10	DKA25E620G	GaAsP	 Orange	628	2.1	2.8	2.0
C-562G-10	DKC25G624G	A-562G-10	DKA25G619G	GaAlInP	 Yellow Green	570	2.2	2.8	2.0
C-562Y-10	DKC25Y623G	A-562Y-10	DKA25Y618G	GaAsP	 Yellow	587	2.1	2.8	1.6
C-562SR-10	DKC25SR622G	A-562SR-10	DKA25SR617G	GaAlInP	 Red	640	1.8	2.2	21.0
C-562UB-10	DKC25UB621G	A-562UB-10	DKA25UB616G	GaInN	 Blue	465	3.5	4.0	28.0

C/A-802X -DUAL DIGITS DISPLAY



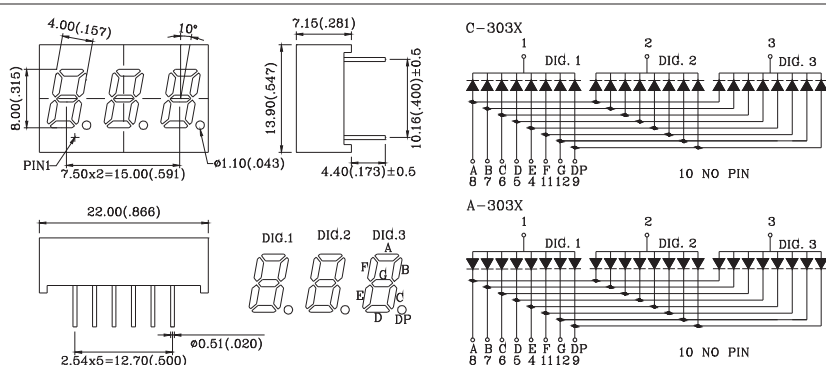
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
							VF(V)20mA		IV(mcd)10mA
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		Typ.	Max.	Typ.
C-802E	DKC28E615G	A-802E	DKA28E610G	GaAsP	 Orange	628	2.1	2.8	3.0
C-802G	DKC28G614G	A-802G	DKA28G609G	GaAlInP	 Yellow Green	570	2.2	2.8	3.0
C-802Y	DKC28Y613G	A-802Y	DKA28Y608G	GaAsP	 Yellow	587	2.1	2.8	2.5
C-802SR	DKC28SR612G	A-802SR	DKA28SR607G	GaAlInP	 Red	640	1.8	2.2	21.0
C-802UB	DKC28UB611G	A-802UB	DKA28UB606G	GaInN	 Blue	465	3.5	4.0	28.0

C/A-243X -THREE DIGITS DISPLAY



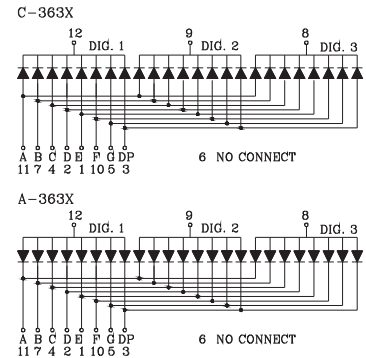
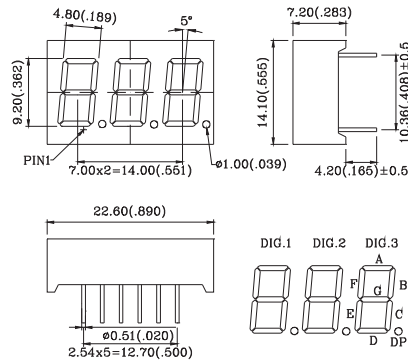
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-243E	DKC32E605G	A-243E	DKA32E601G	GaAsP	 Orange	628	2.1	2.8	1.8
C-243G	DKC32G604G	A-243G	DKA32G600G	GaAlInP	 Yellow Green	570	2.2	2.8	1.6
C-243Y	DKC32Y603G	A-243Y	DKA32Y599G	GaAsP	 Yellow	587	2.1	2.8	1.6
C-243SR	DKC32SR602G	A-243SR	DKA32SR598G	GaAlInP	 Red	640	1.8	2.2	5.0

C/A-303X -THREE DIGITS DISPLAY



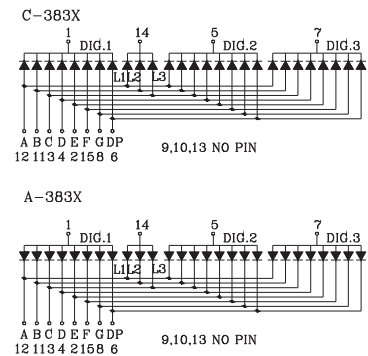
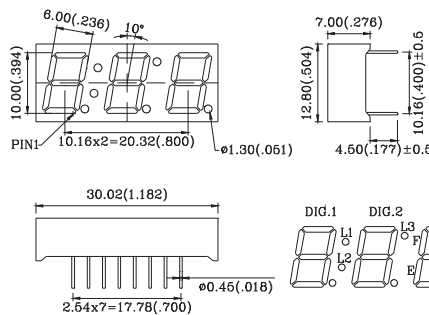
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-303E	DKC33E597G	A-303E	DKA33E592G	GaAsP	 Orange	628	2.1	2.8	1.8
C-303G	DKC33G596G	A-303G	DKA33G591G	GaAlInP	 Yellow Green	570	2.2	2.8	1.6
C-303Y	DKC33Y595G	A-303Y	DKA33Y590G	GaAsP	 Yellow	587	2.1	2.8	1.5
C-303SR	DKC33SR594G	A-303SR	DKA33SR589G	GaAlInP	 Red	640	1.8	2.2	5.0
C-303UB	DKC33UB593G	A-303UB	DKA33UB588G	GaInN	 Blue	465	3.5	4.0	8.0

C/A-363X -THREE DIGITS DISPLAY



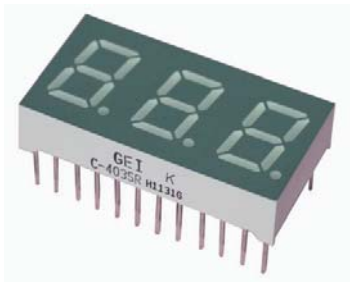
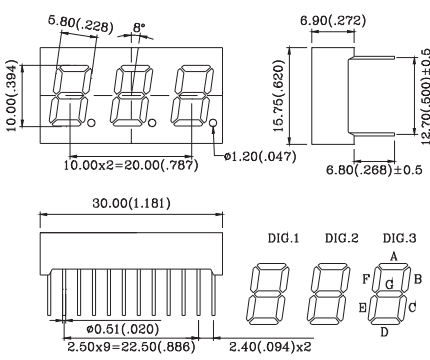
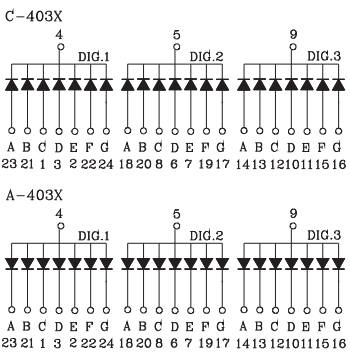
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-363E	DKC33E587G	A-363E	DKA33E582G	GaAsP	 Orange	628	2.1	2.8	1.8
C-363G	DKC33G586G	A-363G	DKA33G581G	GaAlInP	 Yellow Green	570	2.2	2.8	1.6
C-363Y	DKC33Y585G	A-363Y	DKA33Y580G	GaAsP	 Yellow	587	2.1	2.8	1.5
C-363SR	DKC33SR584G	A-363SR	DKA33SR579G	GaAlInP	 Red	640	1.8	2.2	5.0
C-363UB	DKC33UB583G	A-363UB	DKA33UB578G	GaInN	 Blue	465	3.5	4.0	7.0

C/A-383X -THREE DIGITS DISPLAY



Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-383E	DKC33E577G	A-383E	DKA33E573G	GaAsP	 Orange	628	2.1	2.8	1.8
C-383G	DKC33G576G	A-383G	DKA33G572G	GaAlInP	 Yellow Green	570	2.2	2.8	1.6
C-383Y	DKC33Y575G	A-383Y	DKA33Y571G	GaAsP	 Yellow	587	2.1	2.8	1.5
C-383SR	DKC33SR574G	A-383SR	DKA33SR570G	GaAlInP	 Red	640	1.8	2.2	5.0

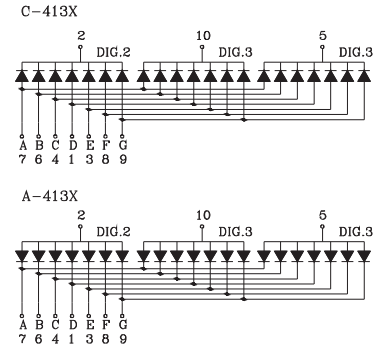
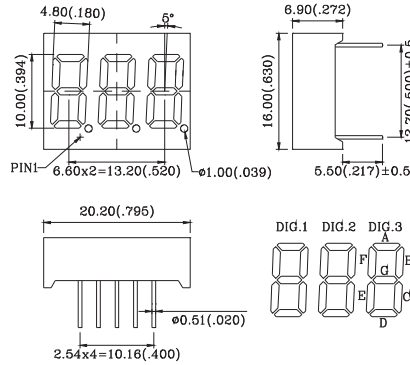
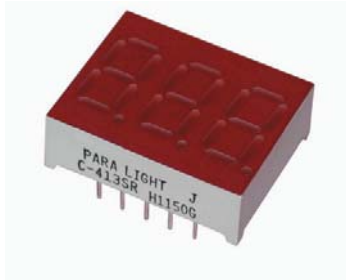
C/A-403X -THREE DIGITS DISPLAY

									
Common Cathode		Common Anode		Chip		Wave length λ_D (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-403E	DKC34E569G	A-403E	DKA34E564G	GaAsP	 Orange	628	2.1	2.8	1.8
C-403G	DKC34G568G	A-403G	DKA34G563G	GaAlInP	 Yellow Green	570	2.2	2.8	1.6
C-403Y	DKC34Y567G	A-403Y	DKA34Y562G	GaAsP	 Yellow	587	2.1	2.8	1.5
C-403SR	DKC34SR566G	A-403SR	DKA34SR561G	GaAlInP	 Red	640	1.8	2.2	21.0
C-403UB	DKC34UB565G	A-403UB	DKA34UB560G	GaInN	 Blue	465	3.5	4.0	28.0

C/A-403X-12 -THREE DIGITS DISPLAY

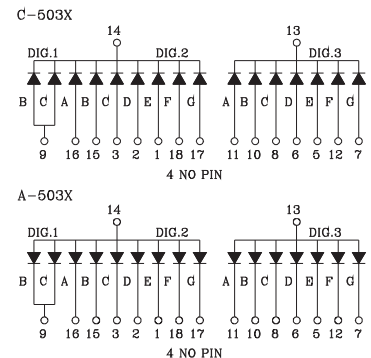
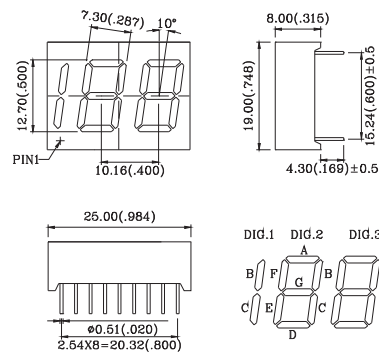
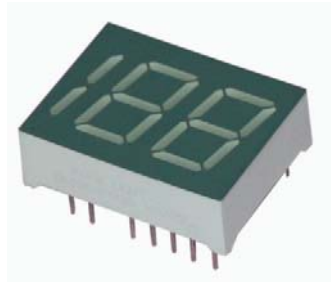
Common Cathode		Common Anode		Chip		Wave length λ_D (nm)	Electro-optical characteristics			
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA	
							Typ.	Max.		
C-403E-12	DKC34E559G	A-403E-12	DKA34E554G	GaAsP	 Orange	628	2.1	2.8	1.8	
C-403G-12	DKC34G558G	A-403G-12	DKA34G553G	GaAlInP	 Yellow Green	570	2.2	2.8	1.6	
C-403Y-12	DKC34Y557G	A-403Y-12	DKA34Y552G	GaAsP	 Yellow	587	2.1	2.8	1.5	
C-403SR-12	DKC34SR556G	A-403SR-12	DKA34SR551G	GaAlInP	 Red	640	1.8	2.2	21.0	
C-403UB-12	DKC34UB555G	A-403UB-12	DKA34UB550G	GaInN	 Blue	465	3.5	4.0	28.0	

C/A-413X -THREE DIGITS DISPLAY



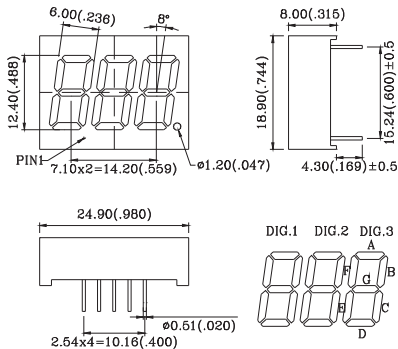
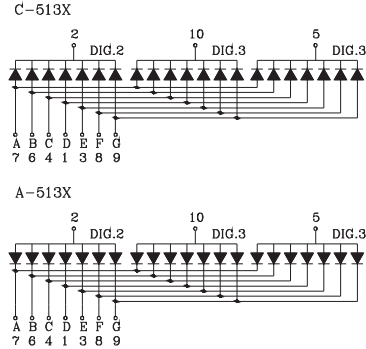
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
							VF(V)20mA		IV(mcd)10mA
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		Typ.	Max.	Typ.
C-413E	DKC34E549G	A-413E	DKA34E545G	GaAsP	 Orange	628	2.1	2.8	1.8
C-413G	DKC34G548G	A-413G	DKA34G544G	GaAlInP	 Yellow Green	570	2.2	2.8	1.6
C-413Y	DKC34Y547G	A-413Y	DKA34Y543G	GaAsP	 Yellow	587	2.1	2.8	1.5
C-413SR	DKC34SR546G	A-413SR	DKA34SR542G	GaAlInP	 Red	640	1.8	2.2	21.0

C/A-503X -THREE DIGITS DISPLAY

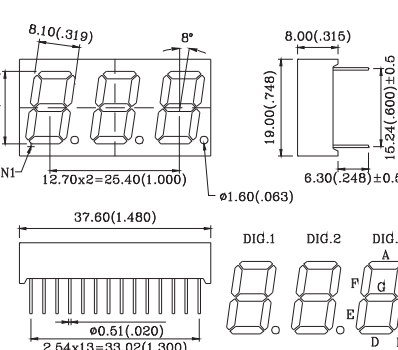
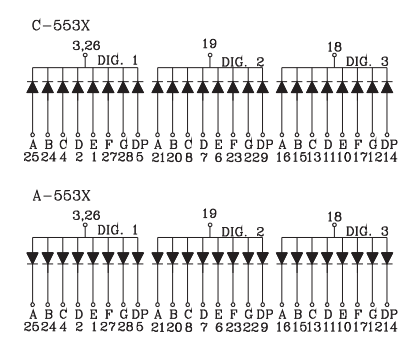


Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-503E	DKC35E541G	A-503E	DKA35E537G	GaAsP	 Orange	628	2.1	2.8	1.8
C-503G	DKC35G540G	A-503G	DKA35G536G	GaAlInP	 Yellow Green	570	2.2	2.8	1.6
C-503Y	DKC35Y539G	A-503Y	DKA35Y535G	GaAsP	 Yellow	587	2.1	2.8	1.5
C-503SR	DKC35SR538G	A-503SR	DKA35SR534G	GaAlInP	 Red	640	1.8	2.2	21.0

C/A-513X -THREE DIGITS DISPLAY

										
Common Cathode		Common Anode		Chip		Wave length λ_D (nm)	Electro-optical characteristics			
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA	
							Typ.	Max.	Typ.	
C-513E	DKC35E533G	A-513E	DKA35E529G	GaAsP	 Orange	628	2.1	2.8	2.0	
C-513G	DKC35G532G	A-513G	DKA35G528G	GaAlInP	 Yellow Green	570	2.2	2.8	2.0	
C-513Y	DKC35Y531G	A-513Y	DKA35Y527G	GaAsP	 Yellow	587	2.1	2.8	1.6	
C-513SR	DKC35SR530G	A-513SR	DKA35SR526G	GaAlInP	 Red	640	1.8	2.2	21.0	

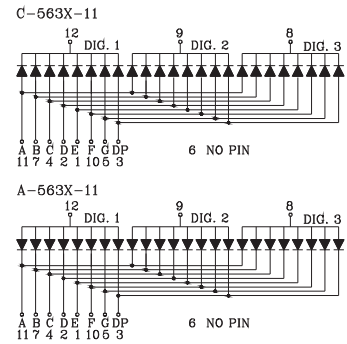
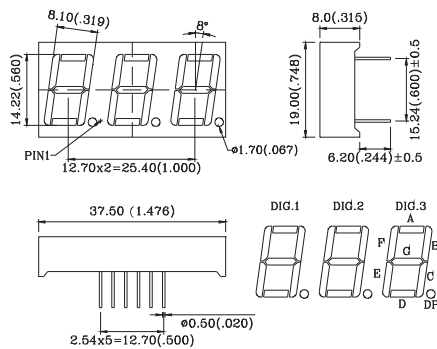
C/A-553X -THREE DIGITS DISPLAY

										
Common Cathode		Common Anode		Chip		Wave length λ_D (nm)	Electro-optical characteristics			
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA	
							Typ.	Max.	Typ.	
C-553E	DKC35E525G	A-553E	DKA35E521G	GaAsP	 Orange	628	2.1	2.8	2.0	
C-553G	DKC35G524G	A-553G	DKA35G520G	GaAlInP	 Yellow Green	570	2.2	2.8	2.0	
C-553Y	DKC35Y523G	A-553Y	DKA35Y519G	GaAsP	 Yellow	587	2.1	2.8	1.6	
C-553SR	DKC35SR522G	A-553SR	DKA35SR518G	GaAlInP	 Red	640	1.8	2.2	21.0	

DISPLAY

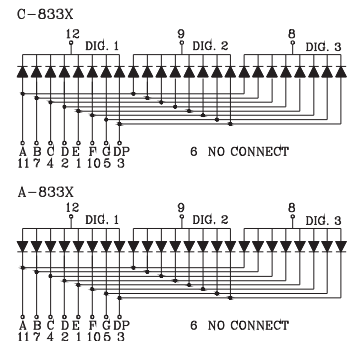
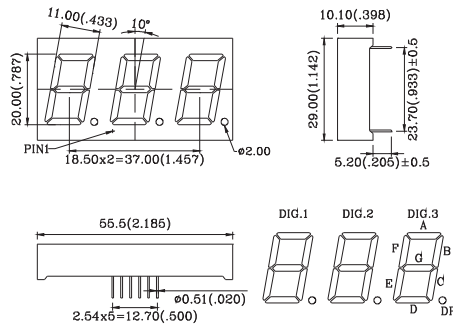
C/A-563X-11 -THREE DIGITS DISPLAY

DISPLAY



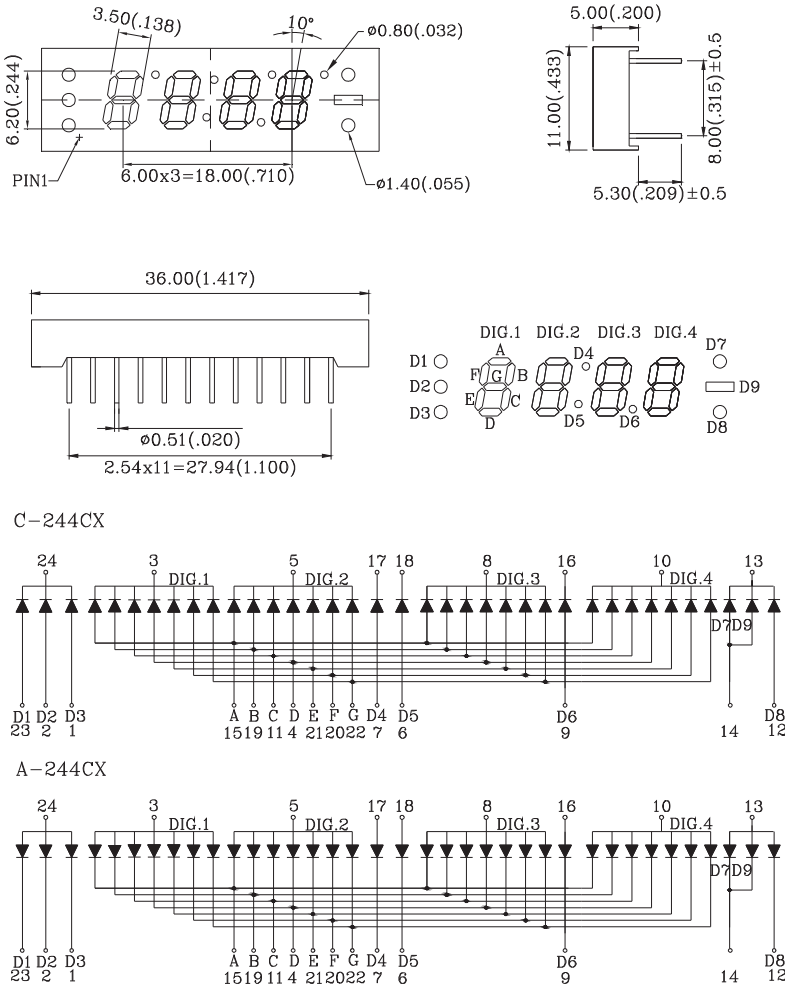
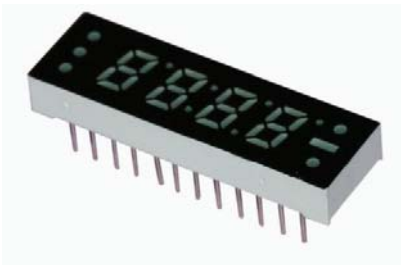
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
							VF(V)20mA		IV(mcd)10mA
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		Typ.	Max.	Typ.
C-563E-11	DKC35E517G	A-563E-11	DKA35E512G	GaAsP	 Orange	628	2.1	2.8	2.0
C-563G-11	DKC35G516G	A-563G-11	DKA35G511G	GaAlInP	 Yellow Green	570	2.2	2.8	2.0
C-563Y-11	DKC35Y515G	A-563Y-11	DKA35Y510G	GaAsP	 Yellow	587	2.1	2.8	1.6
C-563SR-11	DKC35SR514G	A-563SR-11	DKA35SR509G	GaAlInP	 Red	640	1.8	2.2	21.0
C-563UB-11	DKC35UB513G	A-563UB-11	DKA35UB508G	GaInN	 Blue	465	3.5	4.0	28.0

C/A-833X -THREE DIGITS DISPLAY



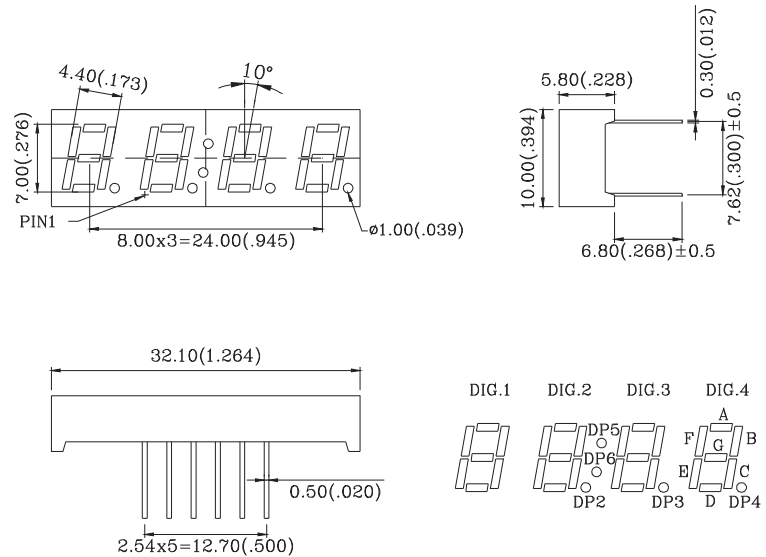
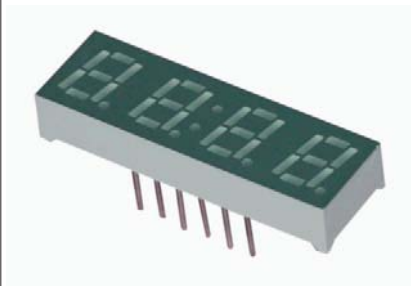
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-833E	DKC38E507G	A-833E	DKA38E503G	GaAsP	 Orange	628	2.1	2.8	3.0
C-833G	DKC38G506G	A-833G	DKA38G502G	GaAlInP	 Yellow Green	570	2.2	2.8	3.0
C-833Y	DKC38Y505G	A-833Y	DKA38Y501G	GaAsP	 Yellow	587	2.1	2.8	3.0
C-833SR	DKC38SR504G	A-833SR	DKA38SR500G	GaAlInP	 Red	640	1.8	2.2	21.0

C/A-244CX -FOUR DIGITS DISPLAY

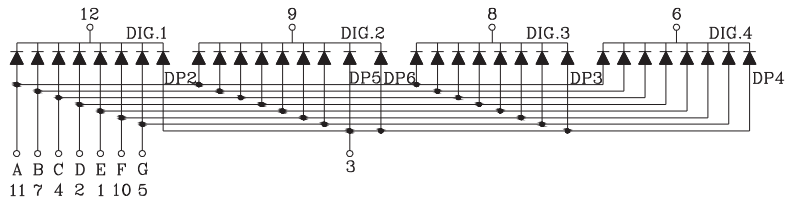


Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-244CE	DKC42E499G	A-244CE	DKA42E495G	GaAsP	 Orange	628	2.1	2.8	1.8
C-244CG	DKC42G498G	A-244CG	DKA42G494G	GaAlInP	 Yellow Green	570	2.2	2.8	1.6
C-244CY	DKC42Y497G	A-244CY	DKA42Y493G	GaAsP	 Yellow	587	2.1	2.8	1.5
C-244CSR	DKC42SR496G	A-244CSR	DKA42SR492G	GaAlInP	 Red	640	1.8	2.2	5.0

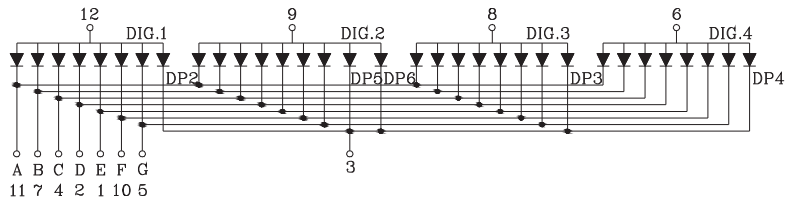
C/A-284CX-12 -FOUR DIGITS DISPLAY



C-284CX-12

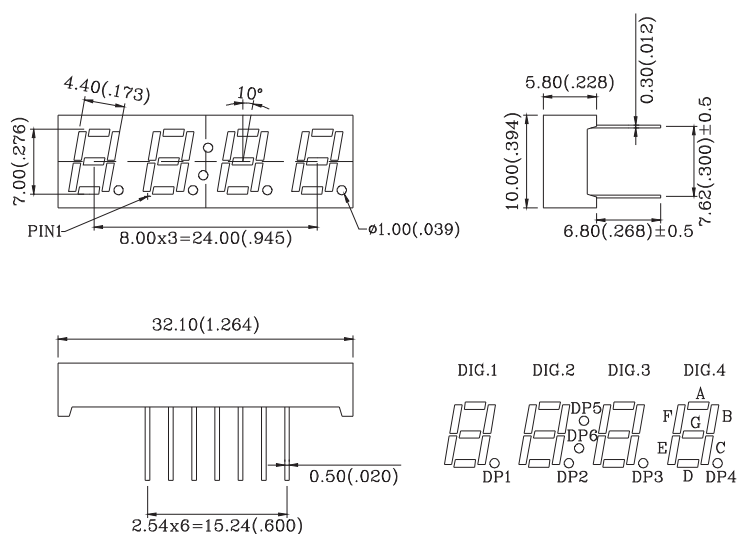


A-284CX-12

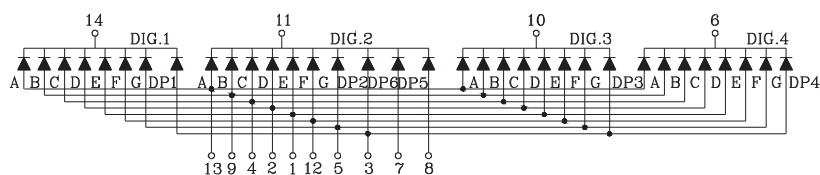


Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-284CE-12	DKC42E491G	A-284CE-12	DKA42E487G	GaAsP	 Orange	628	2.1	2.8	1.8
C-284CG-12	DKC42G490G	A-284CG-12	DKA42G486G	GaAlInP	 Yellow Green	570	2.2	2.8	1.6
C-284CY-12	DKC42Y489G	A-284CY-12	DKA42Y485G	GaAsP	 Yellow	587	2.1	2.8	1.5
C-284CSR-12	DKC42SR488G	A-284CSR-12	DKA42SR484G	GaAlInP	 Red	640	1.8	2.2	5.0

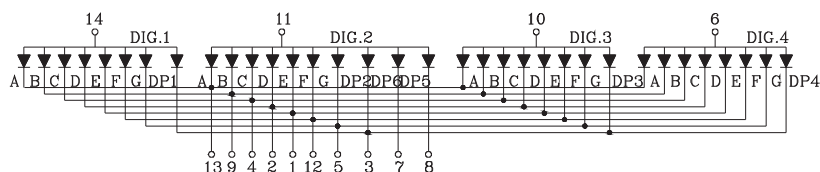
C/A-284CX-14 -FOUR DIGITS DISPLAY



C-284CX-14

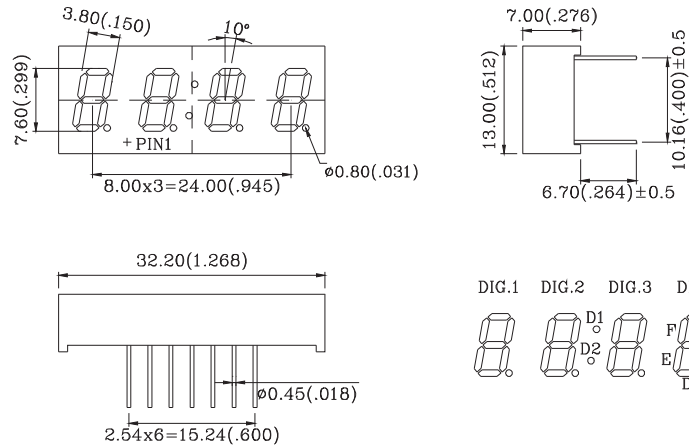


A-284CX-14

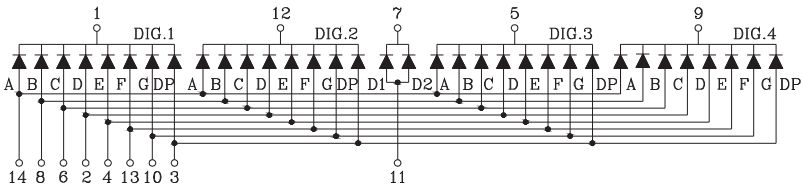


Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-284CE-14	DKC42E483G	A-284CE-14	DKA42E479G	GaAsP	 Orange	628	2.1	2.8	1.8
C-284CG-14	DKC42G482G	A-284CG-14	DKA42G478G	GaAlInP	 Yellow Green	570	2.2	2.8	1.6
C-284CY-14	DKC42Y481G	A-284CY-14	DKA42Y477G	GaAsP	 Yellow	587	2.1	2.8	1.5
C-284CSR-14	DKC42SR480G	A-284CSR-14	DKA42SR476G	GaAlInP	 Red	640	1.8	2.2	5.0

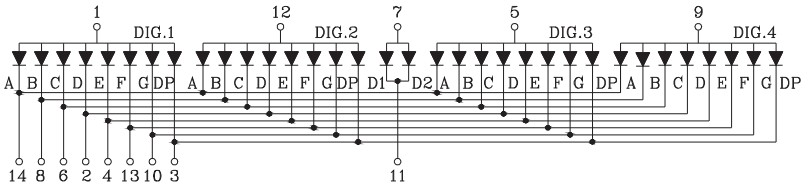
C/A-3G4X -FOUR DIGITS DISPLAY



C-3G4X

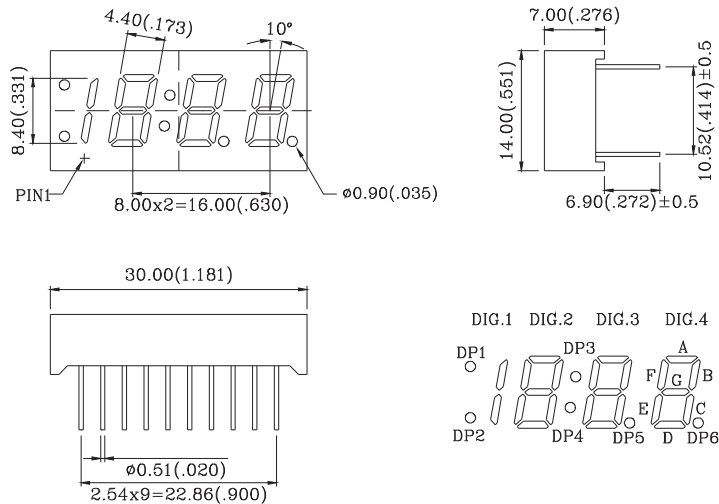
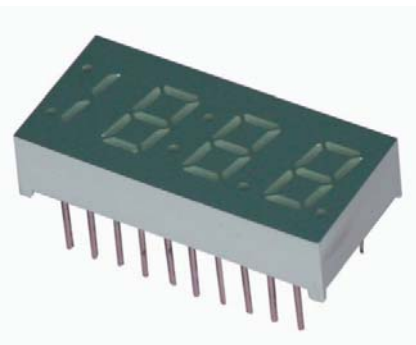


A-3G4X

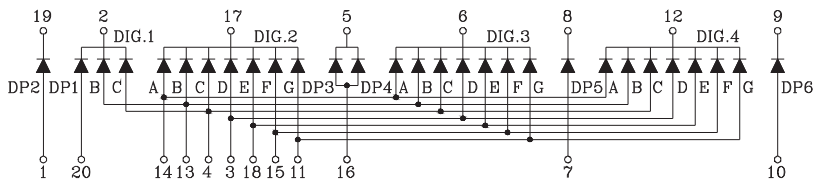


Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
							VF(V)20mA		IV(mcd)10mA
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		Typ.	Max.	Typ.
C-3G4E	DKC43E475G	A-3G4E	DKA43E471G	GaAsP	 Orange	628	2.1	2.8	1.8
C-3G4G	DKC43G474G	A-3G4G	DKA43G470G	GaAlInP	 Yellow Green	570	2.2	2.8	1.6
C-3G4Y	DKC43Y473G	A-3G4Y	DKA43Y469G	GaAsP	 Yellow	587	2.1	2.8	1.5
C-3G4SR	DKC43SR472G	A-3G4SR	DKA43SR468G	GaAlInP	 Red	640	1.8	2.2	5.0

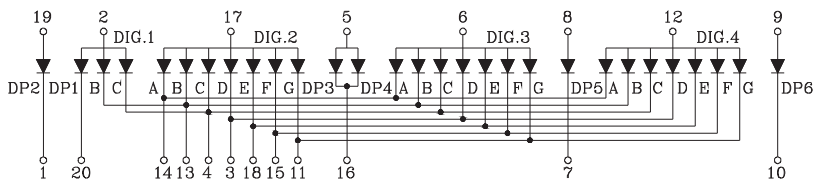
C/A-334CX-20 -FOUR DIGITS DISPLAY



C-334CX-20



A-334CX-20

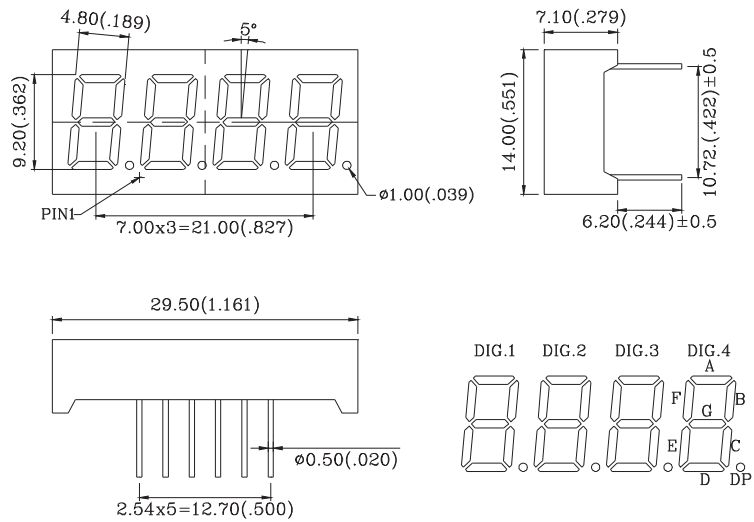


Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-334CE-20	DKC43E467G	A-334CE-20	DKA43E463G	GaAsP	 Orange	628	2.1	2.8	1.8
C-334CG-20	DKC43G466G	A-334CG-20	DKA43G462G	GaAlInP	 Yellow Green	570	2.2	2.8	1.6
C-334CY-20	DKC43Y465G	A-334CY-20	DKA43Y461G	GaAsP	 Yellow	587	2.1	2.8	1.5
C-334CSR-20	DKC43SR464G	A-334CSR-20	DKA43SR460G	GaAlInP	 Red	640	1.8	2.2	5.0

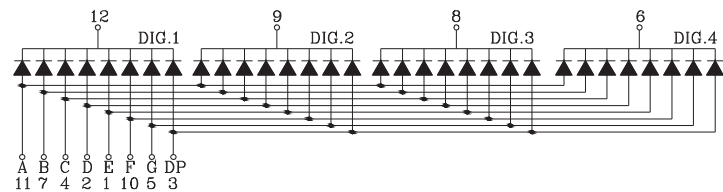
DISPLAY

C/A-364X -FOUR DIGITS DISPLAY

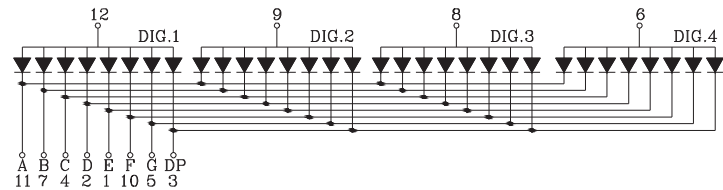
DISPLAY



C-364X

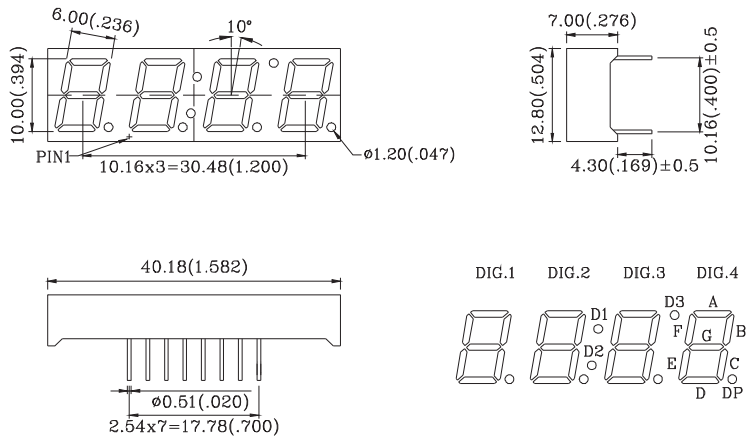


A-364X

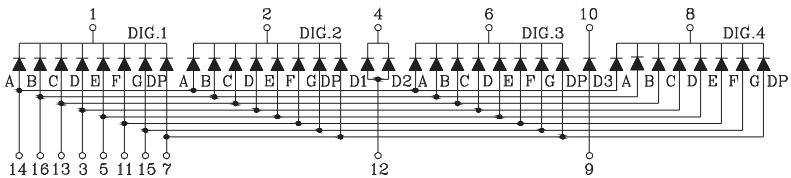


Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-364E	DKC43E459G	A-364E	DKA43E454G	GaAsP	 Orange	628	2.1	2.8	1.8
C-364G	DKC43G458G	A-364G	DKA43G453G	GaAlInP	 Yellow Green	570	2.2	2.8	1.6
C-364Y	DKC43Y457G	A-364Y	DKA43Y452G	GaAsP	 Yellow	587	2.1	2.8	1.5
C-364SR	DKC43SR456G	A-364SR	DKA43SR451G	GaAlInP	 Red	640	1.8	2.2	8.0
C-364UB	DKC43UB455G	A-364UB	DKA43UB450G	GaInN	 Blue	465	3.5	4.0	12.0

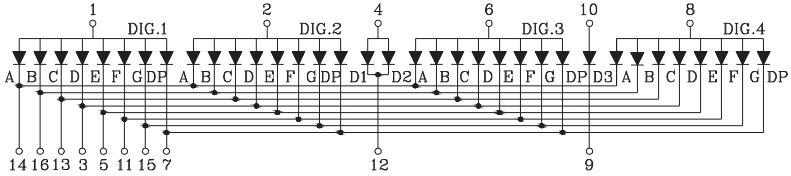
C/A-394X -FOUR DIGITS DISPLAY



C-394X

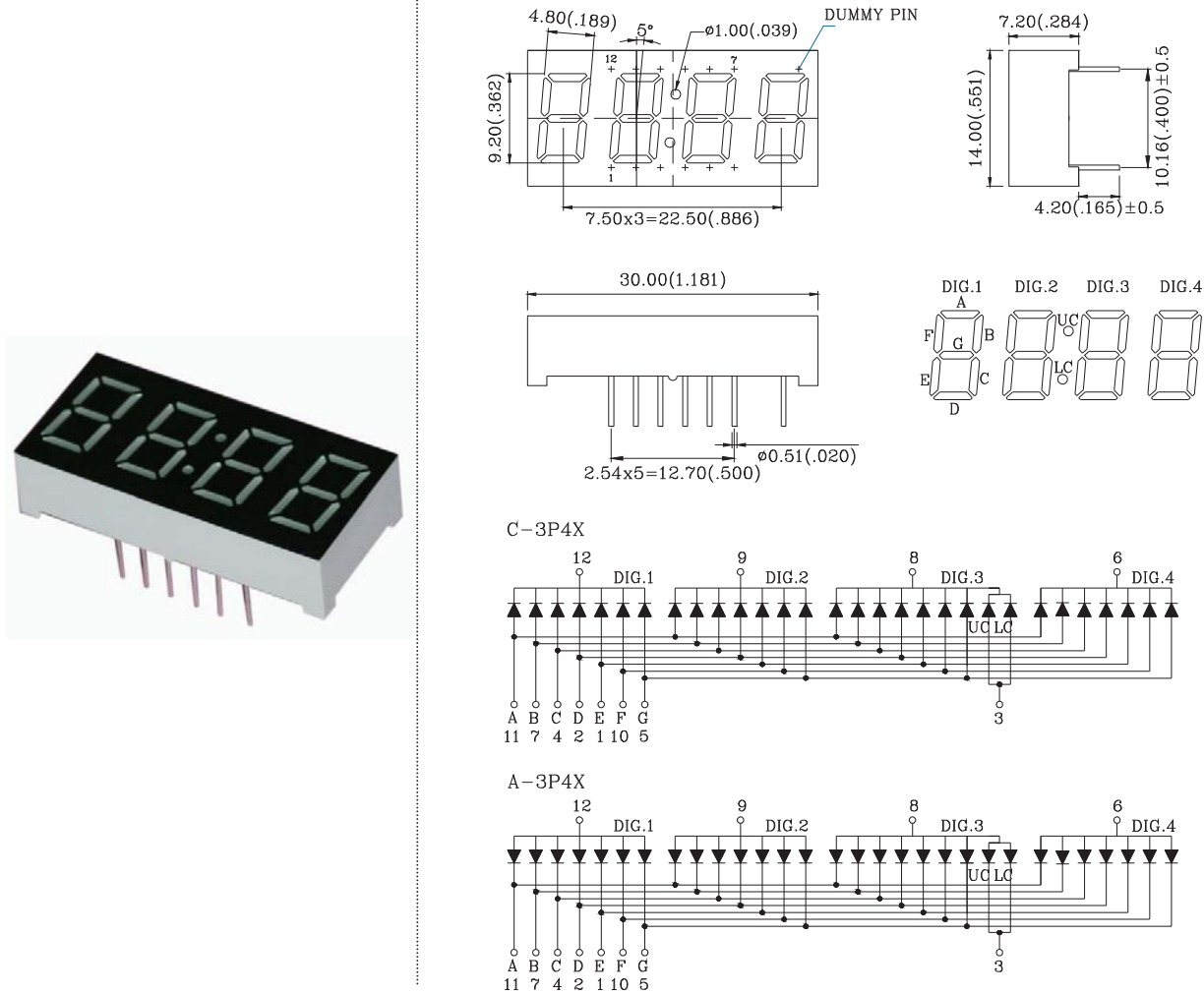


A-394X



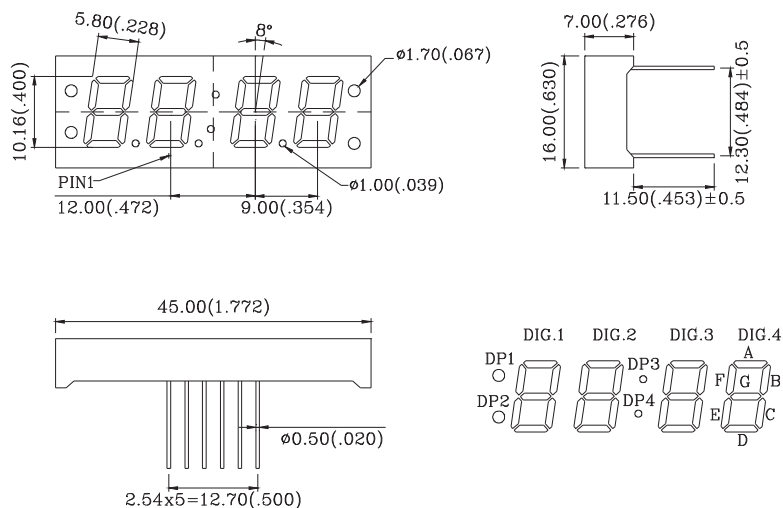
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
							VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color				
C-394E	DKC43E449G	A-394E	DKA43E444G	GaAsP	 Orange	628	2.1	2.8	1.8
C-394G	DKC43G448G	A-394G	DKA43G443G	GaAlInP	 Yellow Green	570	2.2	2.8	1.6
C-394Y	DKC43Y447G	A-394Y	DKA43Y442G	GaAsP	 Yellow	587	2.1	2.8	1.5
C-394SR	DKC43SR446G	A-394SR	DKA43SR441G	GaAlInP	 Red	640	1.8	2.2	8.0
C-394UB	DKC43UB445G	A-394UB	DKA43UB440G	GaInN	 Blue	465	3.5	4.0	15.0

C/A-3P4X -FOUR DIGITS DISPLAY

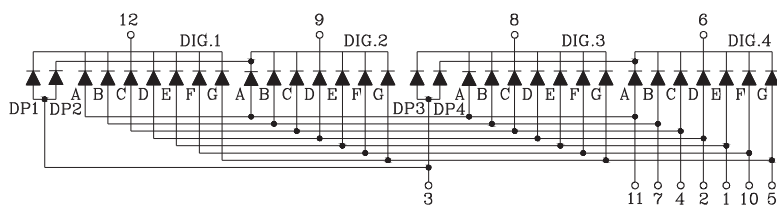


Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-3P4E	DKC43E439G	A-3P4E	DKA43E434G	GaAsP	 Orange	628	2.1	2.8	2.0
C-3P4G	DKC43G438G	A-3P4G	DKA43G433G	GaAlInP	 Yellow Green	570	2.2	2.8	1.8
C-3P4Y	DKC43Y437G	A-3P4Y	DKA43Y432G	GaAsP	 Yellow	587	2.1	2.8	1.7
C-3P4SR	DKC43SR436G	A-3P4SR	DKA43SR431G	GaAlInP	 Red	640	1.8	2.2	8.0
C-3P4UB	DKC43UB435G	A-3P4UB	DKA43UB430G	GaInN	 Blue	465	3.5	4.0	15.0

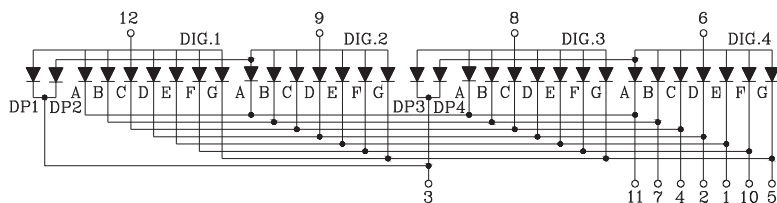
C/A-404CX -FOUR DIGITS DISPLAY



C-404CX



A-404CX

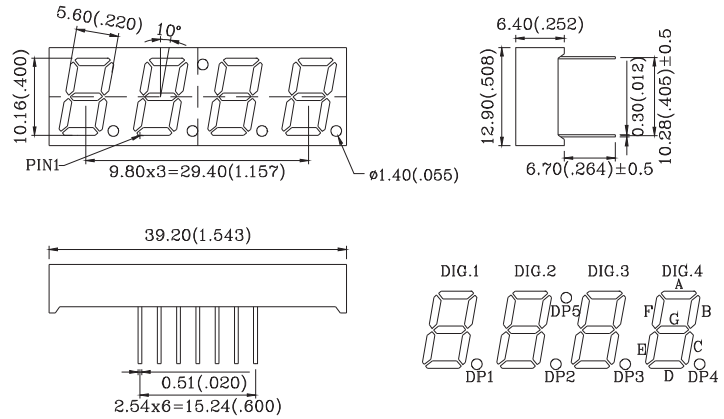
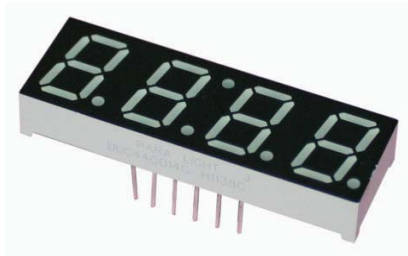


Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-404CE	DKC44E429G	A-404CE	DKA44E424G	GaAsP	 Orange	628	2.1	2.8	2.0
C-404CG	DKC44G428G	A-404CG	DKA44G423G	GaAlInP	 Yellow Green	570	2.2	2.8	1.8
C-404CY	DKC44Y427G	A-404CY	DKA44Y422G	GaAsP	 Yellow	587	2.1	2.8	1.7
C-404CSR	DKC44SR426G	A-404CSR	DKA44SR421G	GaAlInP	 Red	640	1.8	2.2	8.0
C-404CUB	DKC44UB425G	A-404CUB	DKA44UB420G	GaInN	 Blue	465	3.5	4.0	15.0

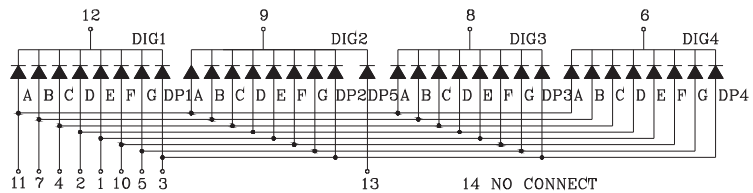
DISPLAY

C/A-4A4X -FOUR DIGITS DISPLAY

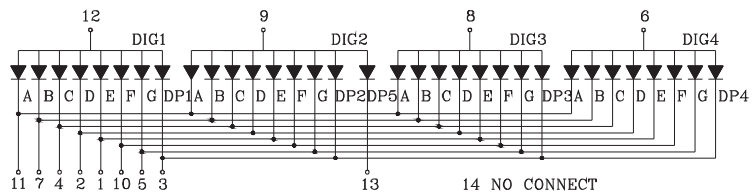
DISPLAY



C-4A4X

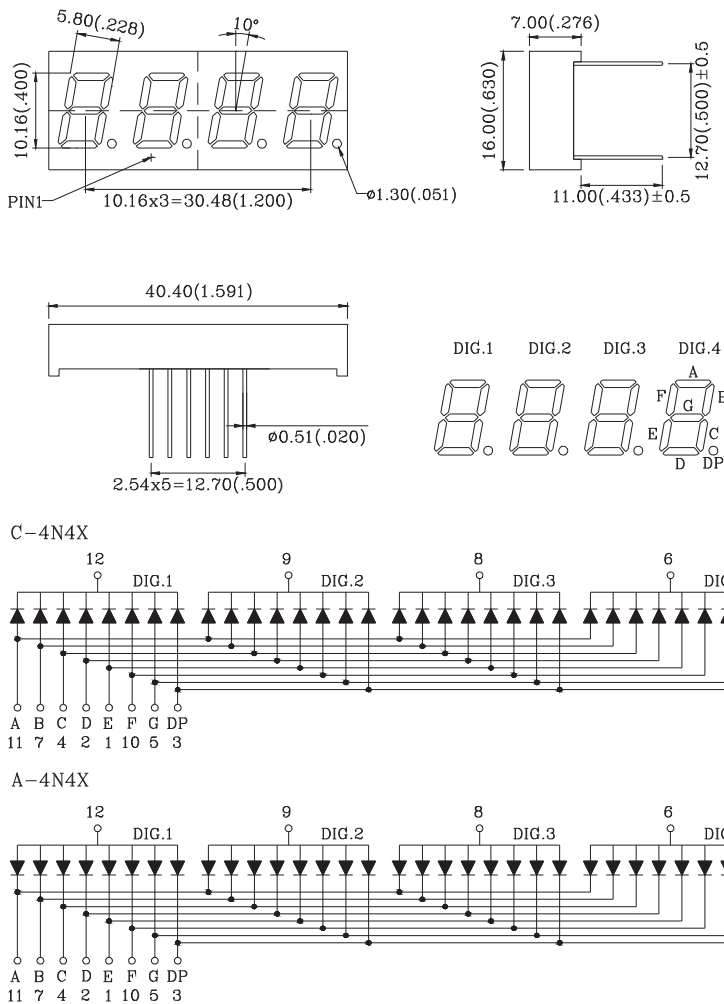
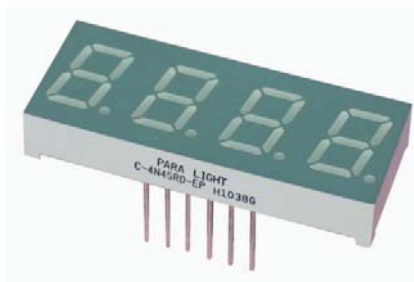


A-4A4X



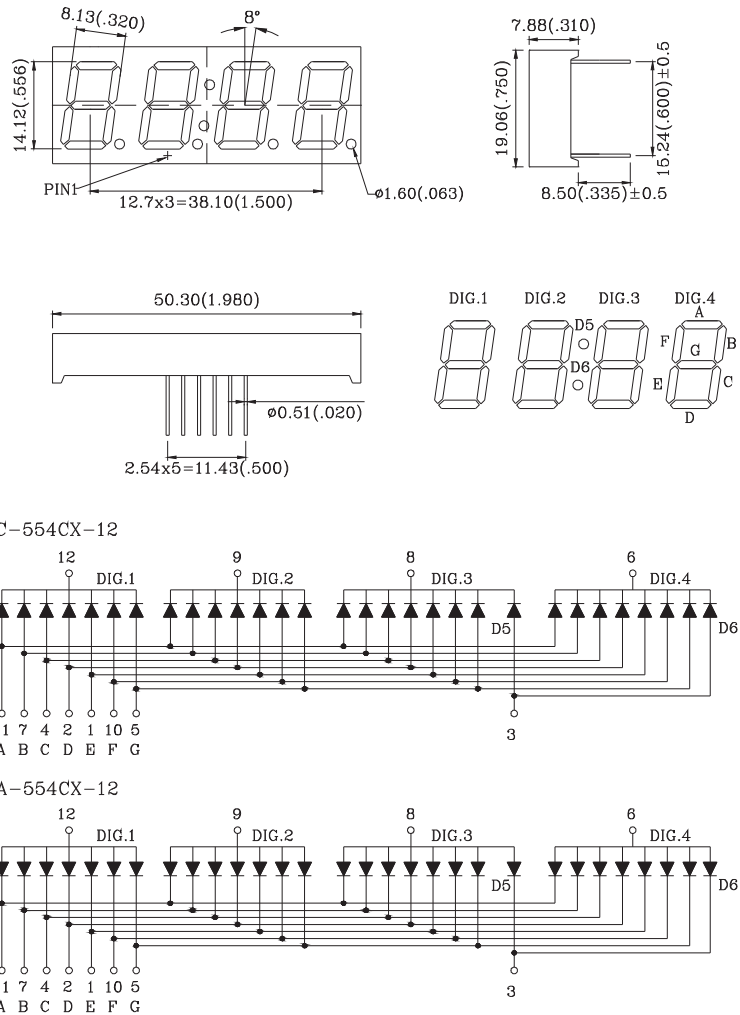
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-4A4E	DKC44E419G	A-4A4E	DKA44E414G	GaAsP	 Orange	628	2.1	2.8	2.0
C-4A4G	DKC44G418G	A-4A4G	DKA44G413G	GaAlInP	 Yellow Green	570	2.2	2.8	1.8
C-4A4Y	DKC44Y417G	A-4A4Y	DKA44Y412G	GaAsP	 Yellow	587	2.1	2.8	1.7
C-4A4SR	DKC44SR416G	A-4A4SR	DKA44SR411G	GaAlInP	 Red	640	1.8	2.2	8.0
C-4A4UB	DKC44UB415G	A-4A4UB	DKA44UB410G	GaInN	 Blue	465	3.5	4.0	15.0

C/A-4N4X -FOUR DIGITS DISPLAY



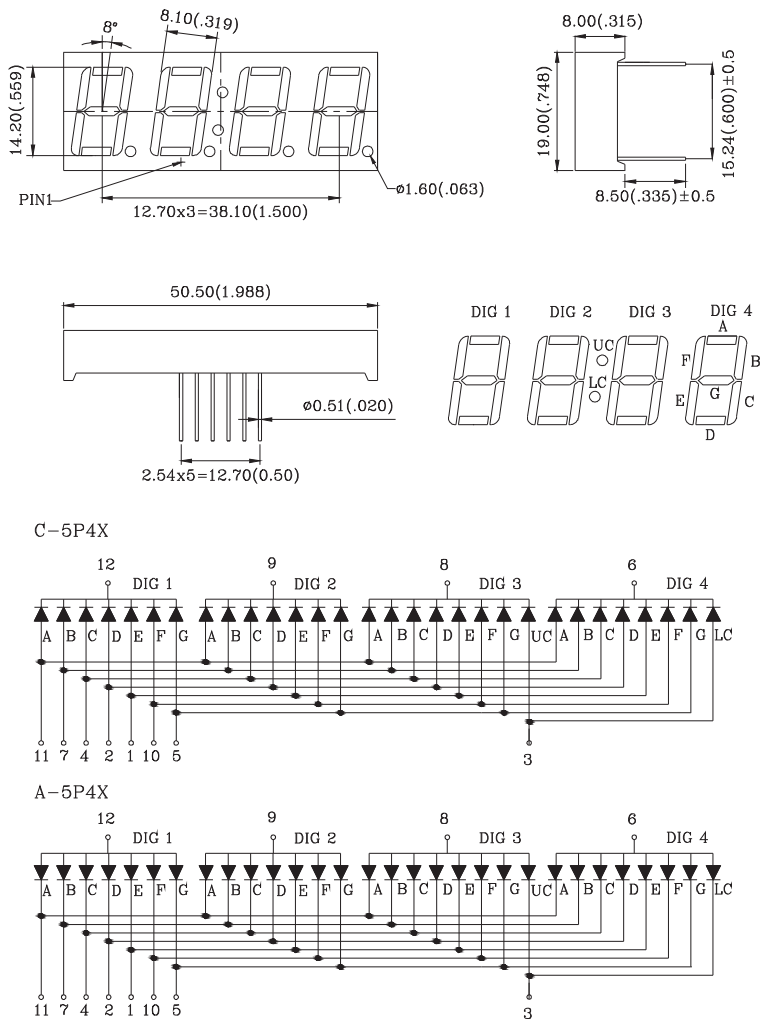
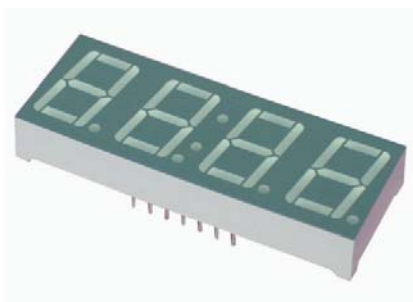
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-4N4E	DKC44E409G	A-4N4E	DKA44E404G	GaAsP	 Orange	628	2.1	2.8	2.0
C-4N4G	DKC44G408G	A-4N4G	DKA44G403G	GaAlInP	 Yellow Green	570	2.2	2.8	1.8
C-4N4Y	DKC44Y407G	A-4N4Y	DKA44Y402G	GaAsP	 Yellow	587	2.1	2.8	1.7
C-4N4SR	DKC44SR406G	A-4N4SR	DKA44SR401G	GaAlInP	 Red	640	1.8	2.2	8.0
C-4N4UB	DKC44UB405G	A-4N4UB	DKA44UB400G	GaInN	 Blue	465	3.5	4.0	15.0

C/A-554CX-12 -FOUR DIGITS DISPLAY



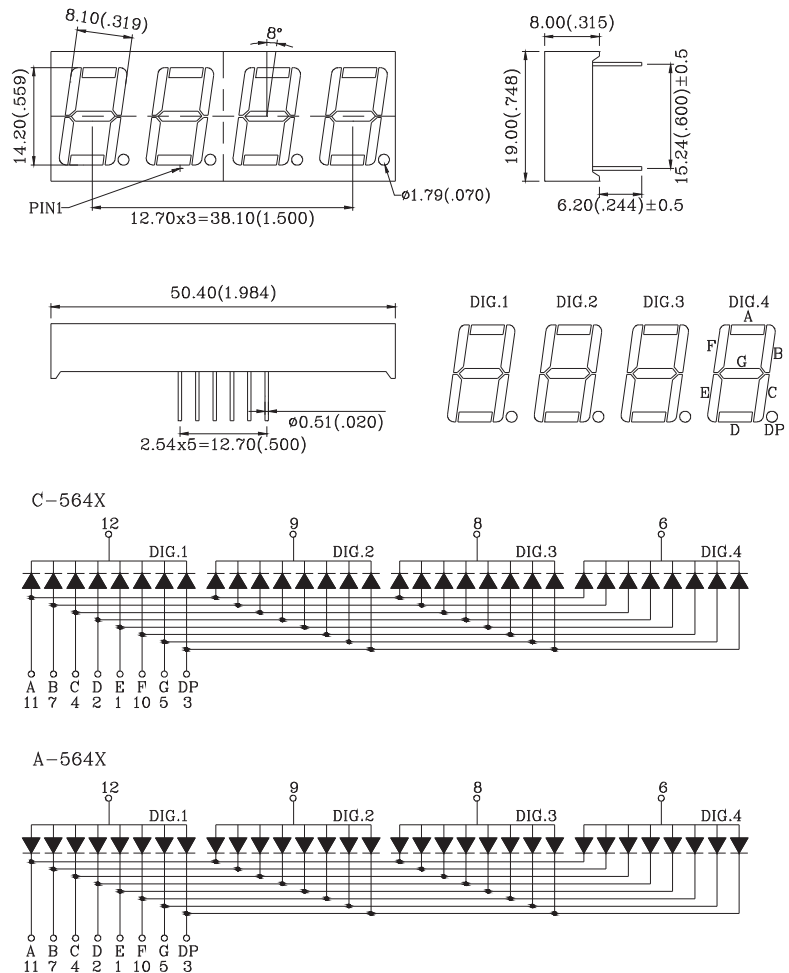
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-554CE-12	DKC45E399G	A-554CE-12	DKA45E395G	GaAsP	 Orange	628	2.1	2.8	2.0
C-554CG-12	DKC45G398G	A-554CG-12	DKA45G394G	GaAlInP	 Yellow Green	570	2.2	2.8	2.0
C-554CY-12	DKC45Y397G	A-554CY-12	DKA45Y393G	GaAsP	 Yellow	587	2.1	2.8	1.6
C-554CSR-12	DKC45SR396G	A-554CSR-12	DKA45SR392G	GaAlInP	 Red	640	1.8	2.2	21.0

C/A-5P4X -FOUR DIGITS DISPLAY



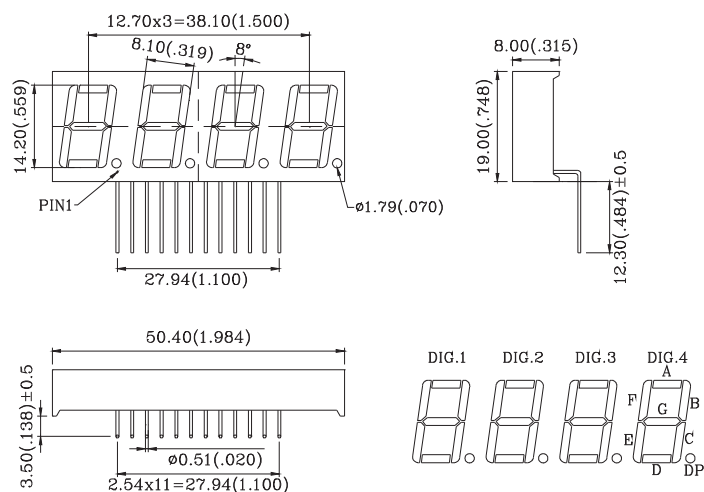
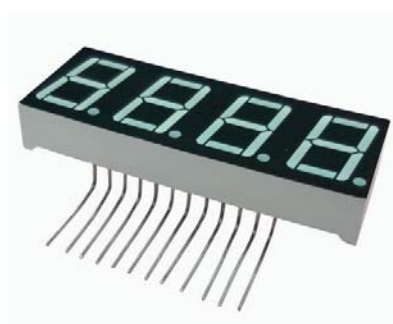
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-5P4E	DKC45E391G	A-5P4E	DKA45E387G	GaAsP	 Orange	628	2.1	2.8	2.0
C-5P4G	DKC45G390G	A-5P4G	DKA45G386G	GaAlInP	 Yellow Green	570	2.2	2.8	2.0
C-5P4Y	DKC45Y389G	A-5P4Y	DKA45Y385G	GaAsP	 Yellow	587	2.1	2.8	1.6
C-5P4SR	DKC45SR388G	A-5P4SR	DKA45SR384G	GaAlInP	 Red	640	1.8	2.2	21.0

C/A-564X -FOUR DIGITS DISPLAY

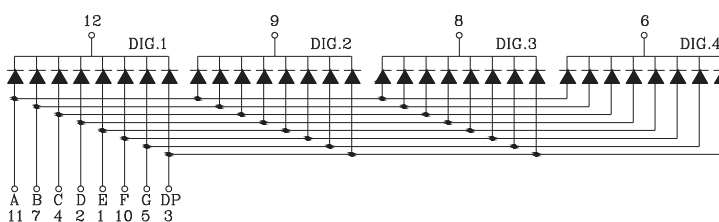


Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-564E	DKC45E383G	A-564E	DKA45E378G	GaAsP	 Orange	628	2.1	2.8	2.0
C-564G	DKC45G382G	A-564G	DKA45G377G	GaAlInP	 Yellow Green	570	2.2	2.8	2.0
C-564Y	DKC45Y381G	A-564Y	DKA45Y376G	GaAsP	 Yellow	587	2.1	2.8	1.6
C-564SR	DKC45SR380G	A-564SR	DKA45SR375G	GaAlInP	 Red	640	1.8	2.2	21.0
C-564UB	DKC45UB379G	A-564UB	DKA45UB374G	GaInN	 Blue	465	3.5	4.0	28.0

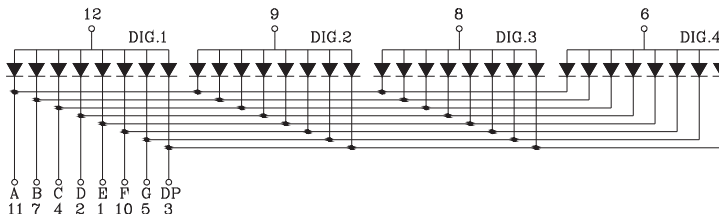
C/A-574X-LF -FOUR DIGITS DISPLAY



C-574X-LF

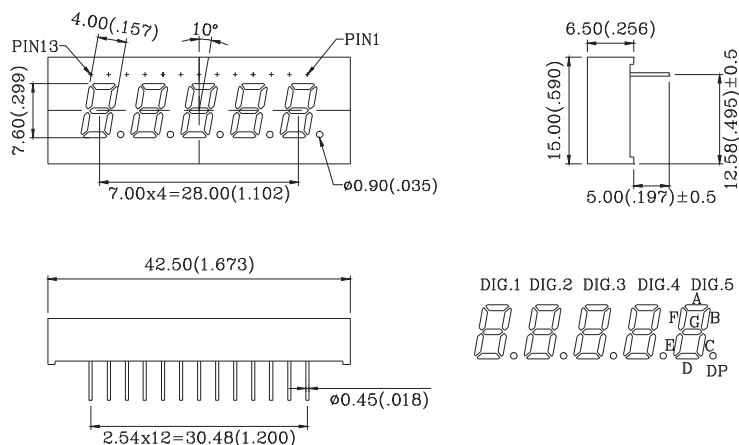


A-574X-LF

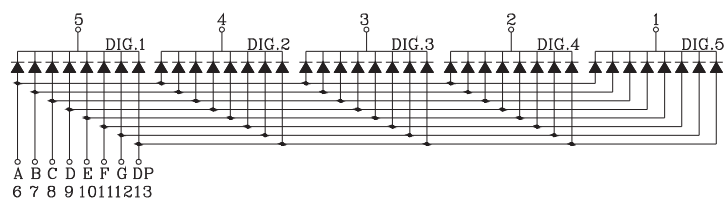


Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-574E-LF	DKC45E373G	A-574E-LF	DKA45E369G	GaAsP	 Orange	628	2.1	2.8	2.0
C-574G-LF	DKC45G372G	A-574G-LF	DKA45G368G	GaAlInP	 Yellow Green	570	2.2	2.8	2.0
C-574Y-LF	DKC45Y371G	A-574Y-LF	DKA45Y367G	GaAsP	 Yellow	587	2.1	2.8	1.6
C-574SR-LF	DKC45SR370G	A-574SR-LF	DKA45SR366G	GaAlInP	 Red	640	1.8	2.2	21.0

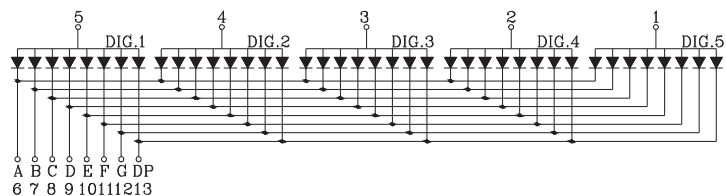
C/A-305X -FIVE DIGITS DISPLAY



C-305X

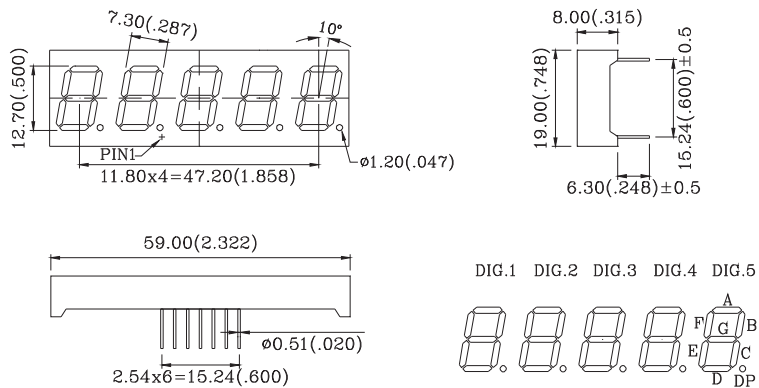


A-305X

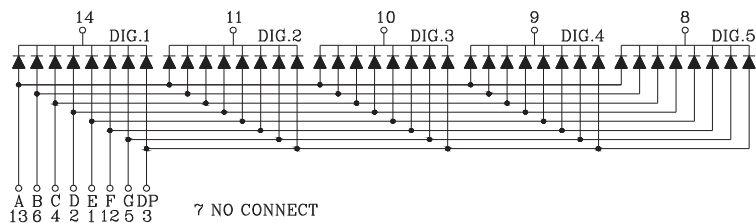


Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-305E	DKC53E365G	A-305E	DKA53E361G	GaAsP	 Orange	628	2.1	2.8	1.8
C-305G	DKC53G364G	A-305G	DKA53G360G	GaAlInP	 Yellow Green	570	2.2	2.8	1.6
C-305Y	DKC53Y363G	A-305Y	DKA53Y359G	GaAsP	 Yellow	587	2.1	2.8	1.5
C-305SR	DKC53SR362G	A-305SR	DKA53SR358G	GaAlInP	 Red	640	1.8	2.2	5.0

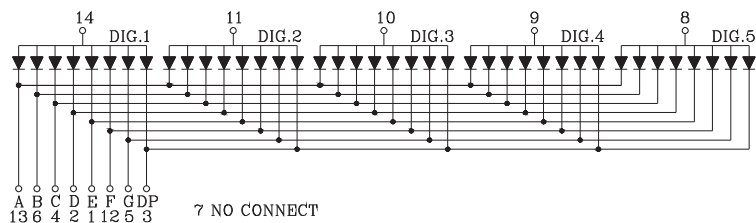
C/A-505X -FIVE DIGITS DISPLAY



C-505X

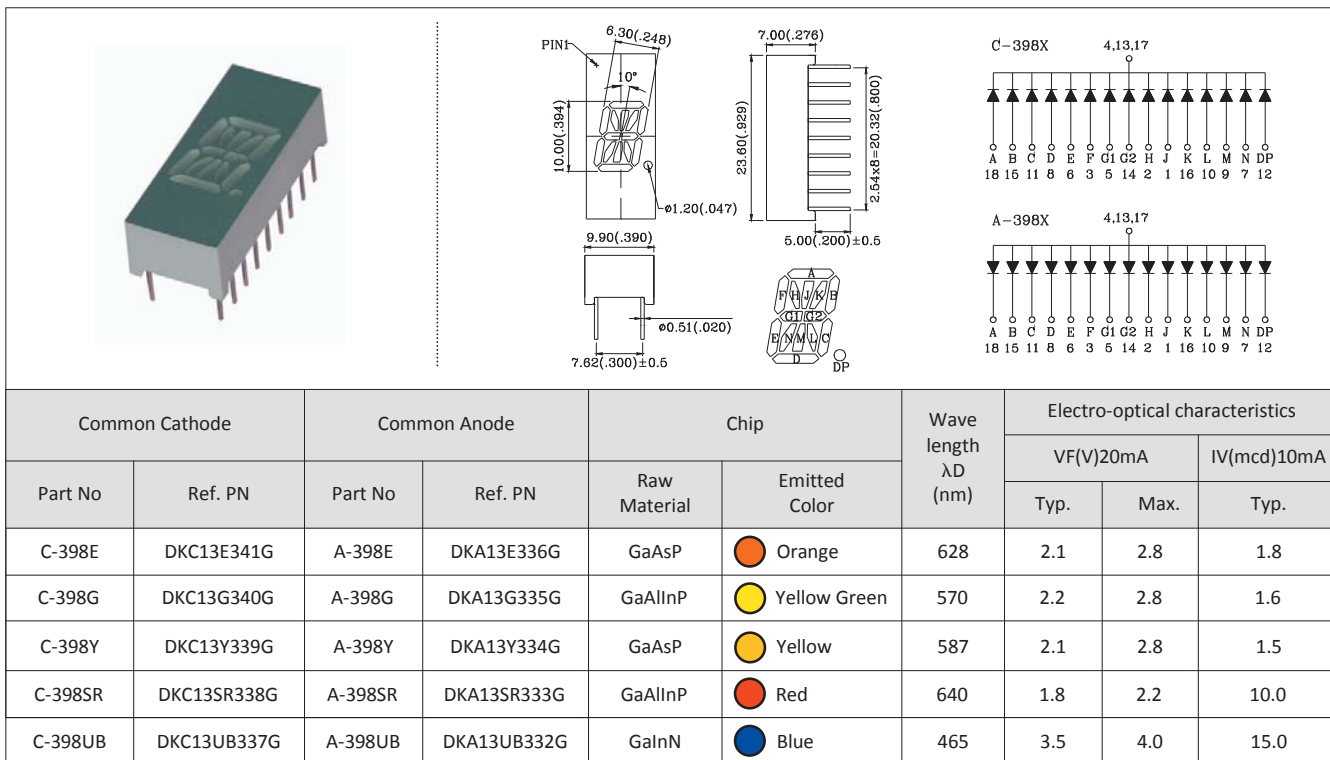


A-505X

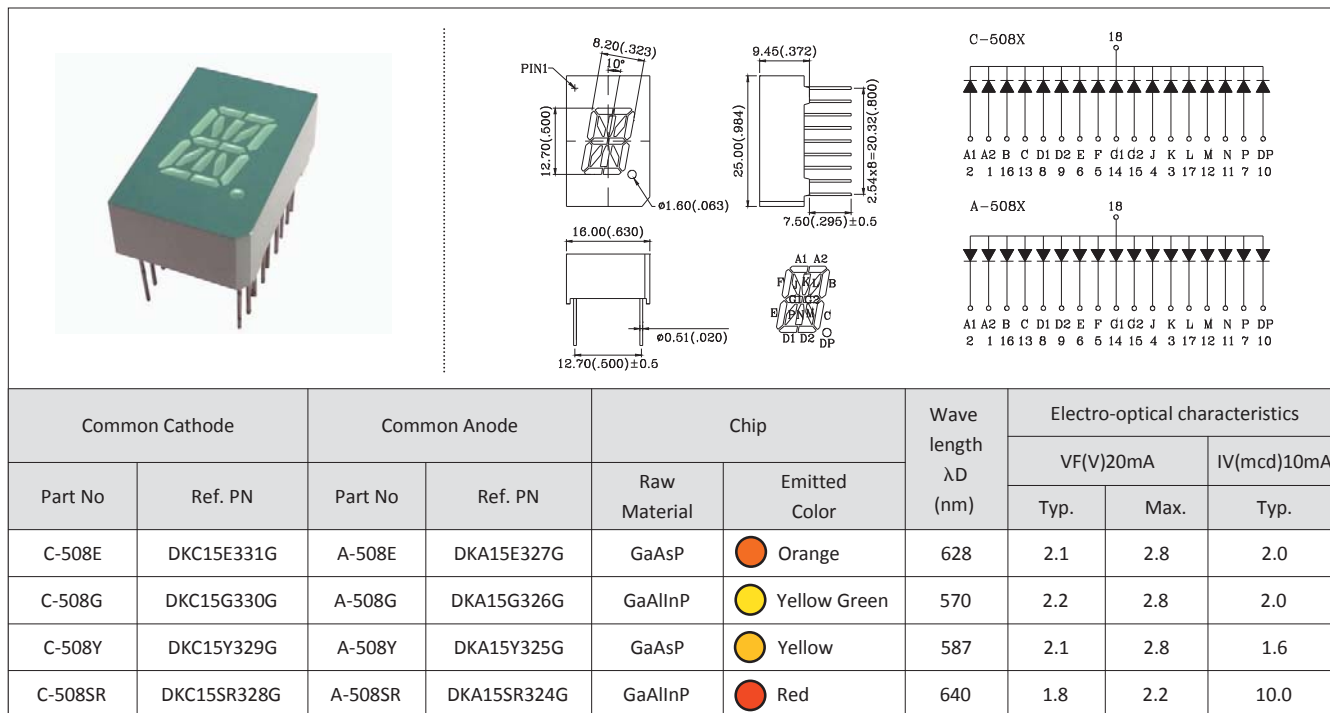


Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
							VF(V)20mA		IV(mcd)10mA
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		Typ.	Max.	Typ.
C-505E	DKC55E357G	A-505E	DKA55E353G	GaAsP	 Orange	628	2.1	2.8	2.0
C-505G	DKC55G356G	A-505G	DKA55G352G	GaAlInP	 Yellow Green	570	2.2	2.8	2.0
C-505Y	DKC55Y355G	A-505Y	DKA55Y351G	GaAsP	 Yellow	587	2.1	2.8	1.8
C-505SR	DKC55SR354G	A-505SR	DKA55SR350G	GaAlInP	 Red	640	1.8	2.2	21.0

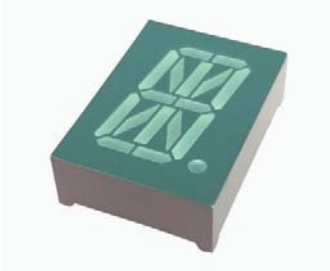
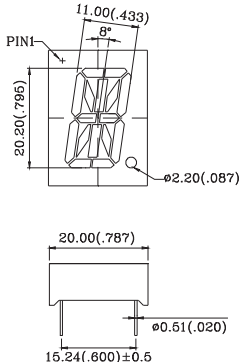
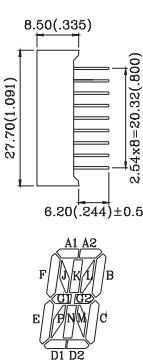
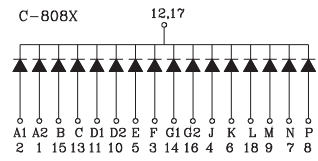
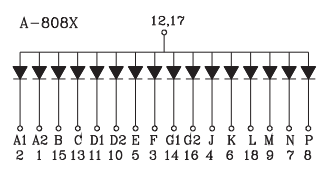
C/A-398X -ALPHA-NUMERIC DISPLAY



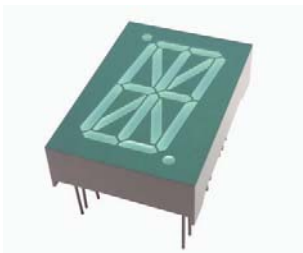
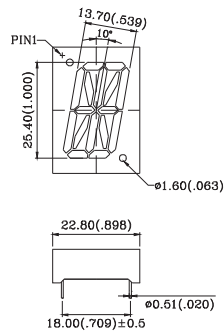
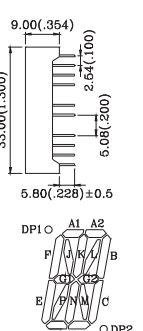
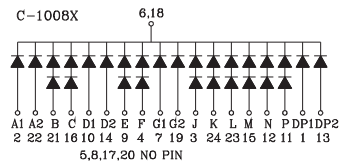
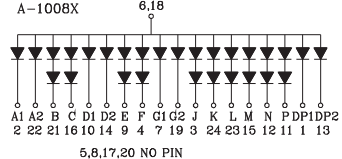
C/A-508X -ALPHA-NUMERIC DISPLAY



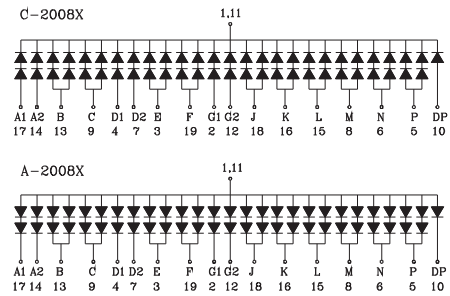
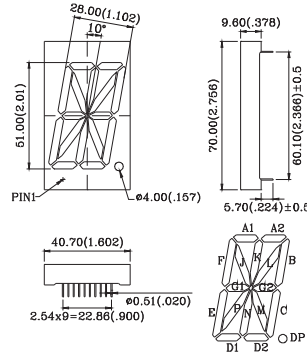
C/A-808X -ALPHA-NUMERIC DISPLAY

									
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-808E	DKC18E323G	A-808E	DKA18E318G	GaAsP	 Orange	628	2.1	2.8	2.0
C-808G	DKC18G322G	A-808G	DKA18G317G	GaAlInP	 Yellow Green	570	2.2	2.8	2.0
C-808Y	DKC18Y321G	A-808Y	DKA18Y316G	GaAsP	 Yellow	587	2.1	2.8	1.6
C-808SR	DKC18SR320G	A-808SR	DKA18SR315G	GaAlInP	 Red	640	1.8	2.2	10.0
C-808UB	DKC18UB319G	A-808UB	DKA18UB314G	GaInN	 Blue	465	3.5	4.0	15.0

C/A-1008X -ALPHA-NUMERIC DISPLAY

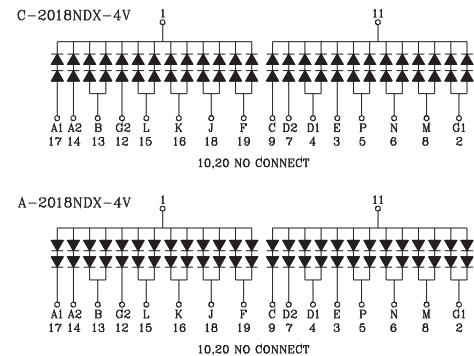
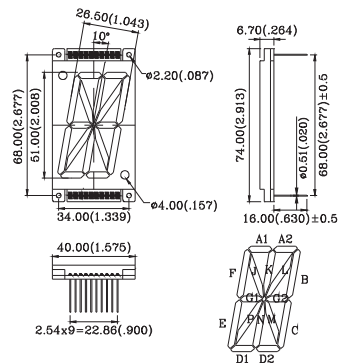
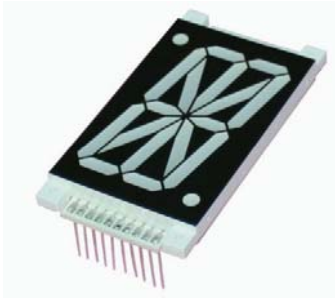
													
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics						
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA				
							Typ.	Max.		Typ.			
C-1008E	DKC1AE313G	A-1008E	DKA1AE308G	GaAsP	 Orange	628	2.1(4.2)	2.8(5.6)	4.0				
C-1008G	DKC1AG312G	A-1008G	DKA1AG307G	GaAlInP	 Yellow Green	570	2.2(4.4)	2.8(5.6)	4.0				
C-1008Y	DKC1AY311G	A-1008Y	DKA1AY306G	GaAsP	 Yellow	587	2.1(4.2)	2.8(5.6)	3.2				
C-1008SR	DKC1ASR310G	A-1008SR	DKA1ASR305G	GaAlInP	 Red	640	1.8(3.6)	2.2(4.4)	20.0				
C-1008NDUW	DKC1AUW309G	A-1008UW	DKA1AUW304G	GaInN	 White	X:0.29 Y:0.30	3.5(7.0)	4.0(8.0)	70.0				

C/A-2008X -ALPHA-NUMERIC DISPLAY



Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-2008E	DKC1AE303G	A-2008E	DKA1AE299G	GaAsP	 Orange	628	4.2(2.1)	5.6(2.8)	6.0
C-2008G	DKC1AG302G	A-2008G	DKA1AG298G	GaAlInP	 Yellow Green	570	4.4(2.2)	5.6(2.8)	5.4
C-2008Y	DKC1AY301G	A-2008Y	DKA1AY297G	GaAsP	 Yellow	587	4.2(2.1)	5.6(2.8)	5.4
C-2008SR	DKC1ASR300G	A-2008SR	DKA1ASR296G	GaAlInP	 Red	640	3.6(1.8)	4.4(2.2)	20.0

C/A-2018NDX-4V -ALPHA-NUMERIC DISPLAY



Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-2018NDE-4V	DKC1AE295G	A-2018NDE-4V	DKA1AE290G	GaAsP	 Orange	628	4.2	5.6	6.0
C-2018NDG-4V	DKC1AG294G	A-2018NDG-4V	DKA1AG289G	GaAlInP	 Yellow Green	570	4.4	5.6	5.4
C-2018NDY-4V	DKC1AY293G	A-2018NDY-4V	DKA1AY288G	GaAsP	 Yellow	587	4.2	5.6	5.4
C-2018NDSR-4V	DKC1ASR292G	A-2018NDSR-4V	DKA1ASR287G	GaAlInP	 Red	640	3.6	4.4	20.0
C-2018NDUW-4V	DKC1AUW291G	A-2018NDUW-4V	DKA1AUW286G	GaInN	 White	X:0.29 Y:0.30	7.0	8.0	120.0

C/A-2018NDX-8V -ALPHA-NUMERIC DISPLAY

Top view dimensions: 26.50(1.043) mm, 68.00(2.677) mm, 51.00(2.008) mm, 34.00(1.339) mm, 4.00(0.157) mm, 2.54x9=22.86(.900) mm, 40.00(1.676) mm.

Side view dimensions: 6.70(.264) mm, 74.00(2.913) mm, 68.00(2.677)±0.5 mm, 18.00(.630)±0.5 mm.

C-2018NDX-8V pinout: 11 pins, 10,20 NO CONNECT.

A-2018NDX-8V pinout: 11 pins, 10,20 NO CONNECT.

Common Cathode		Common Anode		Chip		Wave length λ_D (nm)	Electro-optical characteristics			
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA	
							Typ.	Max.		
C-2018NDE-8V	DKC1AE285G	A-2018NDE-8V	DKA1AE281G	GaAsP	 Orange	628	4.2(8.4)	5.6(11.2)	6.0	
C-2018NDG-8V	DKC1AG284G	A-2018NDG-8V	DKA1AG280G	GaAlInP	 Yellow Green	570	4.4(8.8)	5.6(11.2)	5.4	
C-2018NDY-8V	DKC1AY283G	A-2018NDY-8V	DKA1AY279G	GaAsP	 Yellow	587	4.2(8.4)	5.6(11.2)	5.4	
C-2018NDSR-8V	DKC1ASR282G	A-2018NDSR-8V	DKA1ASR278G	GaAlInP	 Red	640	3.6(7.2)	4.4(8.8)	20.0	

C/A-2308X -ALPHA-NUMERIC DISPLAY

Top view dimensions: 31.80(1.252) mm, 10° angle, 56.80(2.236) mm, 4.00(.167) mm, 47.90(1.886) mm, 2.54X9=22.86(.900) mm.

Side view dimensions: 10.00(.394) mm, 69.80(2.748) mm, 60.00(2.360)±0.5 mm, 5.40(.213)±0.5 mm, 4.00(.167) mm.

C-2308X Pinout: 17 14 13 9 4 7 3 19 2 12 18 16 15 8 6 10. Segments: A1, A2, B, C, D1, D2, E, F, G1, G2, J, K, L, M, N, P, DP. 20 NO CONNECT.

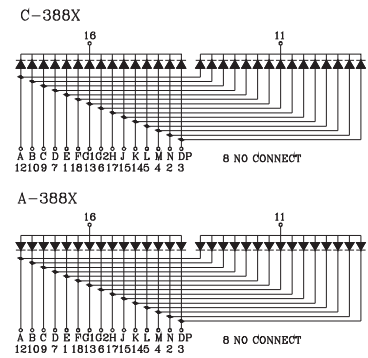
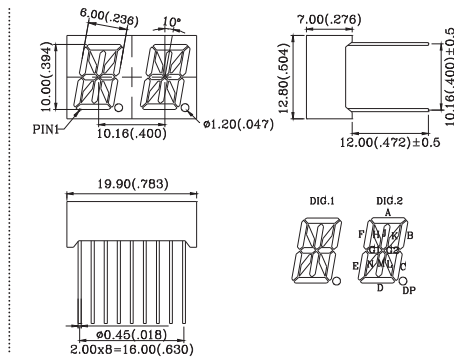
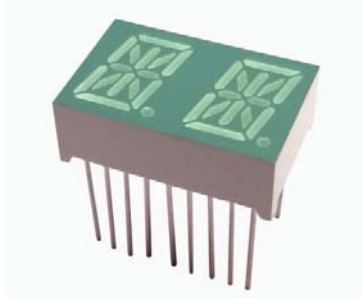
A-2308X Pinout: 17 14 13 9 4 7 3 19 2 12 18 16 15 8 6 10. Segments: A1, A2, B, C, D1, D2, E, F, G1, G2, J, K, L, M, N, P, DP. 20 NO CONNECT.

Common Cathode		Common Anode		Chip		Wave length λ_D (nm)	Electro-optical characteristics			
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA	
							Typ.	Max.	Typ.	
C-2308E	DKC1AE277G	A-2308E	DKA1AE273G	GaAsP	 Orange	628	4.2(2.1)	5.6(2.8)	6.0	
C-2308G	DKC1AG276G	A-2308G	DKA1AG272G	GaAlInP	 Yellow Green	570	4.4(2.2)	5.6(2.8)	5.4	
C-2308Y	DKC1AY275G	A-2308Y	DKA1AY271G	GaAsP	 Yellow	587	4.2(2.1)	5.6(2.8)	5.4	
C-2308SR	DKC1ASR274G	A-2308SR	DKA1ASR270G	GaAlInP	 Red	640	3.6(1.8)	4.4(2.2)	20.0	

DISPLAY

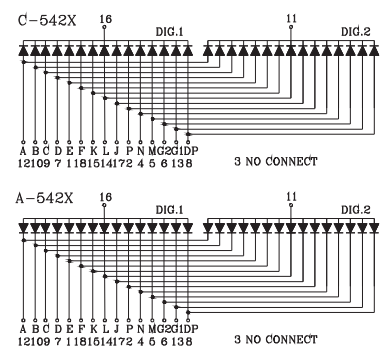
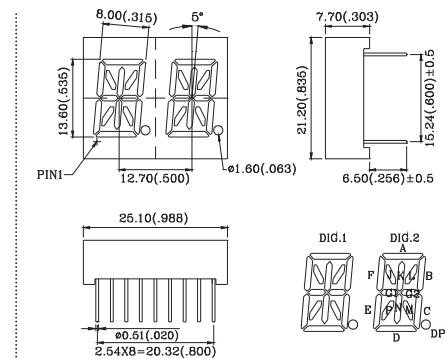
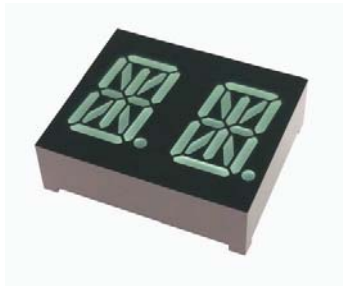
C/A-388X -ALPHA-NUMERIC DISPLAY

DISPLAY



Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-388E	DKC23E269G	A-388E	DKA23E265G	GaAsP	 Orange	628	2.1	2.8	1.8
C-388G	DKC23G268G	A-388G	DKA23G264G	GaAlInP	 Yellow Green	570	2.2	2.8	1.6
C-388Y	DKC23Y267G	A-388Y	DKA23Y263G	GaAsP	 Yellow	587	2.1	2.8	1.6
C-388SR	DKC23SR266G	A-388SR	DKA23SR262G	GaAlInP	 Red	640	1.8	2.2	8.0

C/A-542X -ALPHA-NUMERIC DISPLAY



Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-542E	DKC25E261G	A-542E	DKA25E257G	GaAsP	 Orange	628	2.1	2.8	2.0
C-542G	DKC25G260G	A-542G	DKA25G256G	GaAlInP	 Yellow Green	570	2.2	2.8	2.0
C-542Y	DKC25Y259G	A-542Y	DKA25Y255G	GaAsP	 Yellow	587	2.1	2.8	1.6
C-542SR	DKC25SR258G	A-542SR	DKA25SR254G	GaAlInP	 Red	640	1.8	2.2	10.0

B-1000X -LIGHT BAR

B-1000X

1	2	3	4	5	6	7	8	9	10
○	○	○	○	○	○	○	○	○	○
↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
A	B	C	D	E	F	G	H	I	J
○	○	○	○	○	○	○	○	○	○
20	19	18	17	16	15	14	13	12	11

B-1000M(5D3Y2E)

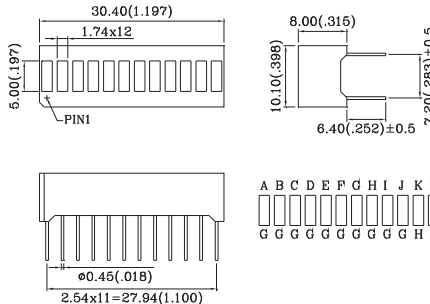
1	2	3	4	5	6	7	8	9	10
○	○	○	○	○	○	○	○	○	○
↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
A	B	C	D	E	F	G	H	I	J
○	○	○	○	○	○	○	○	○	○
20	19	18	17	16	15	14	13	12	11
d	g	d	d	d	Y	Y	Y	E	E

Part No	Ref. PN	Chip		Wave length λD (nm)	Electro-optical characteristics			
		Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA	
					Typ.	Max.	Typ.	
B-1000E	BK010E253G	GaAsP	 Orange	628	2.1	2.8	2.0	
B-1000G	BK010G252G	GaAlInP	 Yellow Green	570	2.2	2.8	2.0	
B-1000Y	BK010Y251G	GaAsP	 Yellow	587	2.1	2.8	2.0	
B-1000SR	BK010SR250G	GaAlInP	 Red	640	1.8	2.2	10.0	
B-1000UB	BK010UB249G	GaInN	 Blue	465	3.5	4.0	15.0	

B-1200X -LIGHT BAR

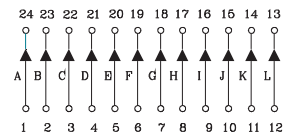


PARA LIGHT
B1200M(10G2H) H10316



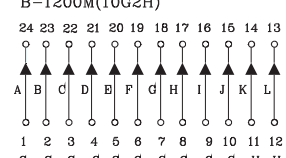
30.40(1.197)
1.74x12
6.00(.197)
PIN1
10.10(.396)
8.00(.315)
6.40(.252)±0.5
7.20(.283)±0.5
ø0.45(.018)
2.54x11=27.94(1.100)

B-1200X



24 23 22 21 20 19 18 17 16 15 14 13
A B C D E F G H I J K L
1 2 3 4 5 6 7 8 9 10 11 12

B-1200M(10G2H)



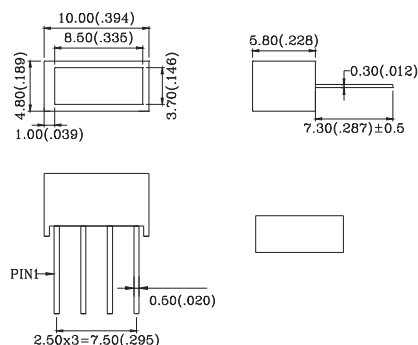
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A B C D E F G H I J K L
1 2 3 4 5 6 7 8 9 10 11 12
G G G G G G G G G H H

Part No	Ref. PN	Chip		Wave length λD (nm)	Electro-optical characteristics		
					VF(V)20mA		IV(mcd)10mA
		Raw Material	Emitted Color		Typ.	Max.	Typ.
B-1200E	BK010E248G	GaAsP	 Orange	628	2.1	2.8	2.0
B-1200G	BK010G247G	GaAlInP	 Yellow Green	570	2.2	2.8	2.0
B-1200Y	BK010Y246G	GaAsP	 Yellow	587	2.1	2.8	2.0
B-1200SR	BK010SR245G	GaAlInP	 Red	640	1.8	2.2	10.0

DISPLAY

DISPLAY

B-1005X-3V -LIGHT BAR

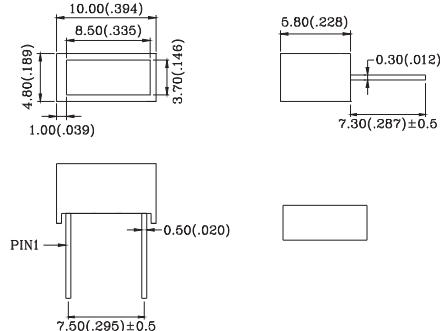


B-1005X-3V



Part No	Ref. PN	Chip		Wave length λD (nm)	Electro-optical characteristics		
					VF(V)20mA		IV(mcd)10mA
		Raw Material	Emitted Color		Typ.	Max.	Typ.
B-1005E-3V	BK010E244G	GaAsP	Orange	628	2.1	2.8	4.0
B-1005G-3V	BK010G243G	GaAlInP	Yellow Green	570	2.2	2.8	3.0
B-1005Y-3V	BK010Y242G	GaAsP	Yellow	587	2.1	2.8	3.0
B-1005SR-3V	BK010SR241G	GaAlInP	Red	640	1.8	2.2	6.0

B-1005X-2 -LIGHT BAR



B-1005X-2



Part No	Ref. PN	Chip		Wave length λD (nm)	Electro-optical characteristics		
					VF(V)20mA		IV(mcd)10mA
		Raw Material	Emitted Color		Typ.	Max.	Typ.
B-1005E-2	BK010E240G	GaAsP	Orange	628	4.2	5.6	4.0
B-1005G-2	BK010G239G	GaAlInP	Yellow Green	570	4.4	5.6	3.0
B-1005Y-2	BK010Y238G	GaAsP	Yellow	587	4.2	5.6	3.0
B-1005SR-2	BK010SR237G	GaAlInP	Red	640	3.6	4.4	6.0

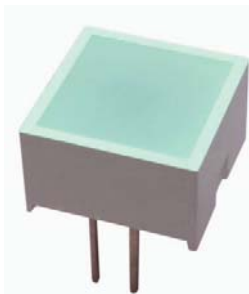
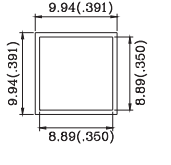
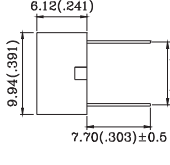
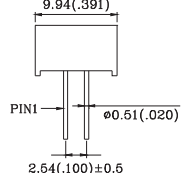
E-58 PARA LIGHT

B-1010X -LIGHT BAR

B-1010X

Part No	Ref. PN	Chip		Wave length λD (nm)	Electro-optical characteristics		
		Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
					Typ.	Max.	Typ.
B-1010E	BK010E236G	GaAsP	 Orange	628	2.1	2.8	6.0
B-1010G	BK010G235G	GaAlInP	 Yellow Green	570	2.2	2.8	5.0
B-1010Y	BK010Y234G	GaAsP	 Yellow	587	2.1	2.8	5.0
B-1010SR	BK010SR233G	GaAlInP	 Red	640	1.8	2.2	12.0

B-1011X -LIGHT BAR

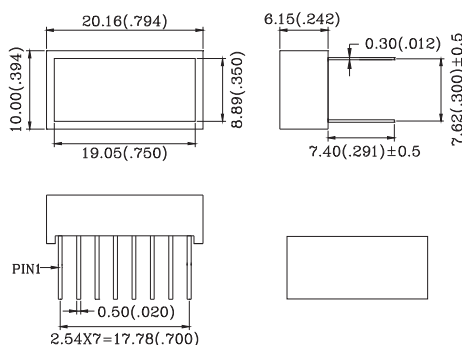
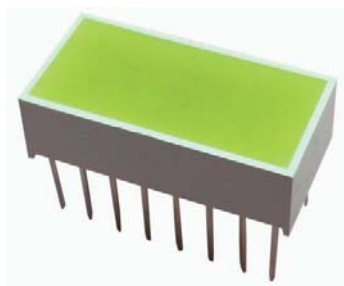


Part No	Ref. PN	Chip		Wave length λD (nm)	Electro-optical characteristics			
		Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA	
					Typ.	Max.	Typ.	
B-1011E	BK010E232G	GaAsP	 Orange	628	2.1	2.8	6.0	
B-1011G	BK010G231G	GaAlInP	 Yellow Green	570	2.2	2.8	5.0	
B-1011Y	BK010Y230G	GaAsP	 Yellow	587	2.1	2.8	5.0	
B-1011SR	BK010SR229G	GaAlInP	 Red	640	1.8	2.2	12.0	
B-1011UB	BK010UB228G	GaInN	 Blue	465	3.5	4.0	15.0	
B-1011UW	BK010UW227G	GaInN	 White	X:0.29 Y:0.30	3.5	4.0	25.0	

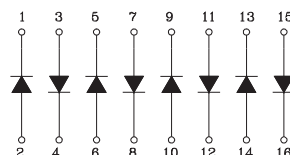
DISPLAY

DISPLAY

B-1020X -LIGHT BAR

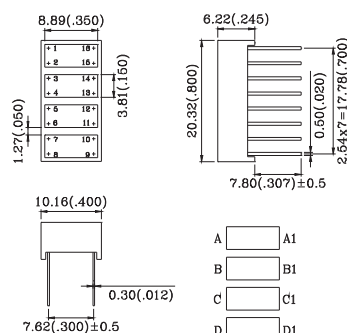


B-1020X

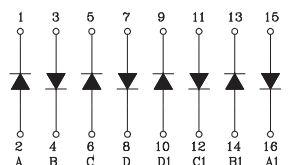


Part No	Ref. PN	Chip		Wave length λD (nm)	Electro-optical characteristics		
					VF(V)20mA		IV(mcd)10mA
		Raw Material	Emitted Color		Typ.	Max.	Typ.
B-1020E	BK010E226G	GaAsP	 Orange	628	2.1	2.8	12.0
B-1020G	BK010G225G	GaAlInP	 Yellow Green	570	2.2	2.8	10.0
B-1020Y	BK010Y224G	GaAsP	 Yellow	587	2.1	2.8	10.0
B-1020SR	BK010SR223G	GaAlInP	 Red	640	1.8	2.2	20.0

B-1C2CX -LIGHT BAR



B-1C2CX



Part No	Ref. PN	Chip		Wave length λD (nm)	Electro-optical characteristics		
		Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
					Typ.	Max.	Typ.
B-1C2CE	BK010E222G	GaAsP	 Orange	628	2.1	2.8	12.0
B-1C2CG	BK010G221G	GaAlInP	 Yellow Green	570	2.2	2.8	10.0
B-1C2CY	BK010Y220G	GaAsP	 Yellow	587	2.1	2.8	10.0
B-1C2CSR	BK010SR219G	GaAlInP	 Red	640	1.8	2.2	20.0

E-60 PARA LIGHT

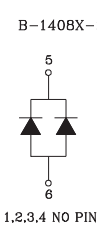
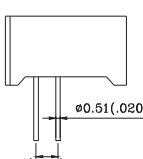
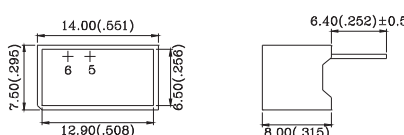
B-1D2DX -LIGHT BAR

B-1D2DX

Part No	Ref. PN	Chip		Wave length λD (nm)	Electro-optical characteristics		
		Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
					Typ.	Max.	Typ.
B-1D2DE	BK010E218G	GaAsP	 Orange	628	2.1	2.8	12.0
B-1D2DG	BK010G217G	GaAlInP	 Yellow Green	570	2.2	2.8	10.0
B-1D2DY	BK010Y216G	GaAsP	 Yellow	587	2.1	2.8	10.0
B-1D2DSR	BK010SR215G	GaAlInP	 Red	640	1.8	2.2	20.0

B-1408X-2 -LIGHT BAR





B-1408X-2

5

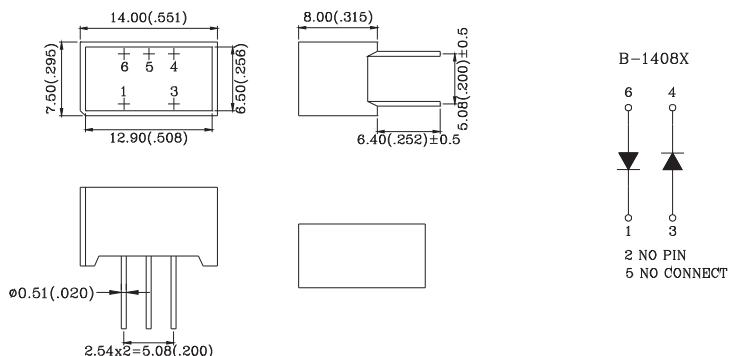
1 2 3 4

6

1,2,3,4 NO PIN

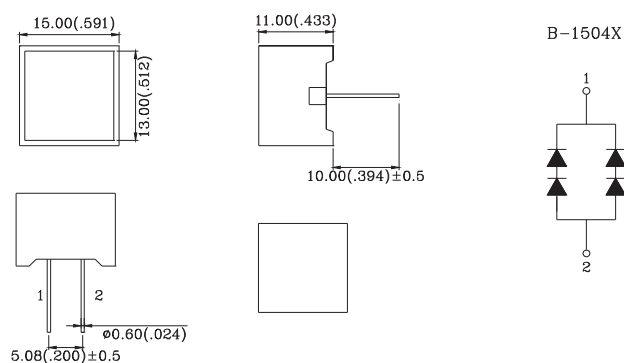
Part No	Ref. PN	Chip		Wave length λD (nm)	Electro-optical characteristics		
		Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
					Typ.	Max.	Typ.
B-1408E-2	BK010E214G	GaAsP	 Orange	628	2.1	2.8	6.0
B-1408G-2	BK010G213G	GaAlInP	 Yellow Green	570	2.2	2.8	5.0
B-1408Y-2	BK010Y212G	GaAsP	 Yellow	587	2.1	2.8	5.0
B-1408SR-2	BK010SR211G	GaAlInP	 Red	640	1.8	2.2	12.0
B-1408UB-2	BK010UB210G	GaInN	 Blue	465	3.5	4.0	1.0

B-1408X -LIGHT BAR



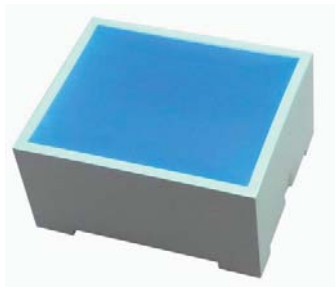
Part No	Ref. PN	Chip		Wave length λD (nm)	Electro-optical characteristics		
		Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
					Typ.	Max.	Typ.
B-1408E	BK010E209G	GaAsP	 Orange	628	2.1	2.8	6.0
B-1408G	BK010G208G	GaAlInP	 Yellow Green	570	2.2	2.8	5.0
B-1408Y	BK010Y207G	GaAsP	 Yellow	587	2.1	2.8	5.0
B-1408SR	BK010SR206G	GaAlInP	 Red	640	1.8	2.2	12.0

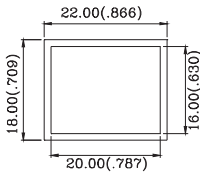
B-1504X -LIGHT BAR

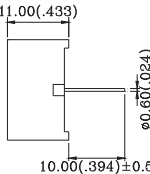


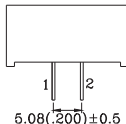
Part No	Ref. PN	Chip		Wave length λD (nm)	Electro-optical characteristics		
		Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
					Typ.	Max.	Typ.
B-1504E	BK010E205G	GaAsP	 Orange	628	4.2	5.6	12.0
B-1504G	BK010G204G	GaAlInP	 Yellow Green	570	4.4	5.6	10.0
B-1504Y	BK010Y203G	GaAsP	 Yellow	587	4.2	5.6	10.0
B-1504SR	BK010SR202G	GaAlInP	 Red	640	3.6	4.4	20.0
B-1504UB	BK010UB201G	GaInN	 Blue	465	7.0	8.0	28.0

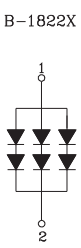
B-1822X -LIGHT BAR







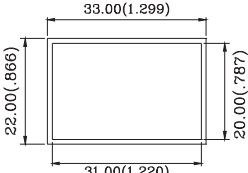


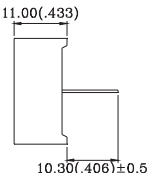


Part No	Ref. PN	Chip		Wave length λD (nm)	Electro-optical characteristics			
		Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA	
					Typ.	Max.	Typ.	
B-1822E	BK010E200G	GaAsP	 Orange	628	4.2	5.6	12.0	
B-1822G	BK010G199G	GaAlInP	 Yellow Green	570	4.4	5.6	10.0	
B-1822Y	BK010Y198G	GaAsP	 Yellow	587	4.2	5.6	10.0	
B-1822SR	BK010SR197G	GaAlInP	 Red	640	3.6	4.4	20.0	
B-1822UB	BK010UB196G	GaInN	 Blue	465	7.0	8.0	26.0	

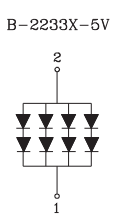
B-2233X-5V -LIGHT BAR







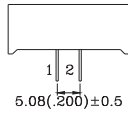
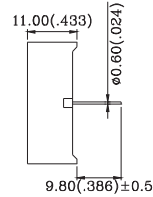
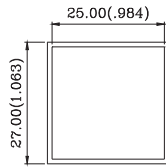




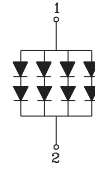
Part No	Ref. PN	Chip		Wave length λD (nm)	Electro-optical characteristics			
		Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA	
					Typ.	Max.	Typ.	
B-2233E-5V	BK010E195G	GaAsP	 Orange	628	4.2	5.6	16.0	
B-2233G-5V	BK010G194G	GaAlInP	 Yellow Green	570	4.4	5.6	14.0	
B-2233Y-5V	BK010Y193G	GaAsP	 Yellow	587	4.2	5.6	14.0	
B-2233SR-5V	BK010SR192G	GaAlInP	 Red	640	3.6	4.4	32.0	

DISPLAY

B-2709X -LIGHT BAR

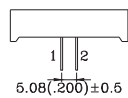
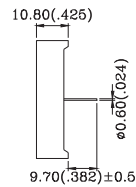
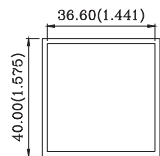
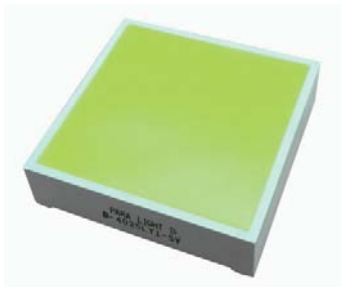


B-2709X

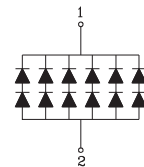


Part No	Ref. PN	Chip		Wave length λD (nm)	Electro-optical characteristics		
		Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
					Typ.	Max.	Typ.
B-2709E	BK010E191G	GaAsP	 Orange	628	4.2	5.6	16.0
B-2709G	BK010G190G	GaAlInP	 Yellow Green	570	4.4	5.6	14.0
B-2709Y	BK010Y189G	GaAsP	 Yellow	587	4.2	5.6	14.0
B-2709SR	BK010SR188G	GaAlInP	 Red	640	3.6	4.4	32.0

B-4025X-5V -LIGHT BAR



B-4025X-5V



Part No	Ref. PN	Chip		Wave length λD (nm)	Electro-optical characteristics		
					VF(V)20mA		IV(mcd)10mA
		Raw Material	Emitted Color		Typ.	Max.	Typ.
B-4025E-5V	BK010E187G	GaAsP	 Orange	628	4.2	5.6	36.0
B-4025G-5V	BK010G186G	GaAlInP	 Yellow Green	570	4.4	5.6	30.0
B-4025Y-5V	BK010Y185G	GaAsP	 Yellow	587	4.2	5.6	30.0
B-4025SR-5V	BK010SR184G	GaAlInP	 Red	640	3.6	4.4	70.0

E-64 PARA LIGHT

R-1804X -LIGHT BAR

R-1804X

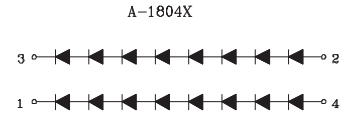
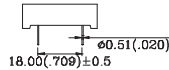
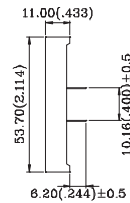
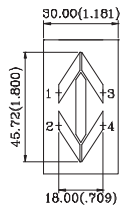
Part No	Ref. PN	Chip		Wave length λD (nm)	Electro-optical characteristics		
		Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
					Typ.	Max.	Typ.
R-1804E	BK010E183G	GaAsP	 Orange	628	4.2	5.6	36.0
R-1804G	BK010G182G	GaAlInP	 Yellow Green	570	4.4	5.6	30.0
R-1804Y	BK010Y181G	GaAsP	 Yellow	587	4.2	5.6	30.0
R-1804SR	BK010SR180G	GaAlInP	 Red	640	3.6	4.4	70.0

R-2202X -LIGHT BAR

Part No	Ref. PN	Chip		Wave length λD (nm)	Electro-optical characteristics			
		Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA	
					Typ.	Max.	Typ.	
R-2202E	BK010E179G	GaAsP	 Orange	628	4.2	5.6	20.0	
R-2202G	BK010G178G	GaAlInP	 Yellow Green	570	4.4	5.6	18.0	
R-2202Y	BK010Y177G	GaAsP	 Yellow	587	4.2	5.6	18.0	
R-2202SR	BK010SR176G	GaAlInP	 Red	640	3.6	4.4	32.0	

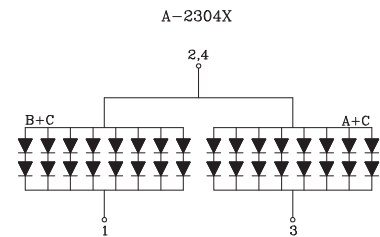
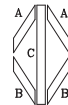
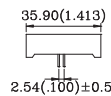
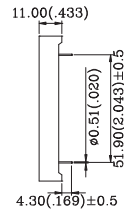
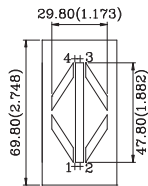
DISPLAY

A-1804X -LIGHT BAR



Part No	Ref. PN	Chip		Wave length λD (nm)	Electro-optical characteristics		
		Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
					Typ.	Max.	Typ.
A-1804E	BK010E175G	GaAsP	 Orange	628	16.8	22.4	12.0
A-1804G	BK010G174G	GaAlInP	 Yellow Green	570	17.6	22.4	10.0
A-1804Y	BK010Y173G	GaAsP	 Yellow	587	16.8	22.4	10.0
A-1804SR	BK010SR172G	GaAlInP	 Red	640	14.4	17.6	20.0

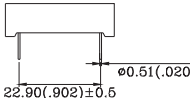
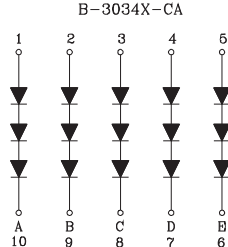
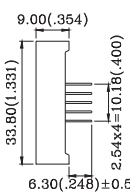
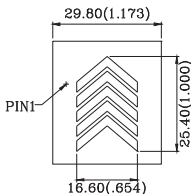
A-2304X -LIGHT BAR



Part No	Ref. PN	Chip		Wave length λD (nm)	Electro-optical characteristics		
		Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
					Typ.	Max.	Typ.
A-2304E	BK020E171G	GaAsP	 Orange	628	4.2	5.6	12.0
A-2304G	BK020G170G	GaAlInP	 Yellow Green	570	4.4	5.6	10.0
A-2304Y	BK020Y169G	GaAsP	 Yellow	587	4.2	5.6	10.0
A-2304SR	BK020SR168G	GaAlInP	 Red	640	3.6	4.4	20.0

B-3034X-CA -LIGHT BAR





Part No	Ref. PN	Chip		Wave length λD (nm)	Electro-optical characteristics			
		Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA	
					Typ.	Max.	Typ.	
B-3034E-CA	BK010E167G	GaAsP	 Orange	628	6.3	8.4	4.8	
B-3034G-CA	BK010G166G	GaAlInP	 Yellow Green	570	6.6	8.4	4.5	
B-3034Y-CA	BK010Y165G	GaAsP	 Yellow	587	6.3	8.4	4.3	
B-3034SR-CA	BK010SR164G	GaAlInP	 Red	640	5.4	6.6	12.0	

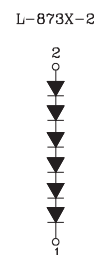
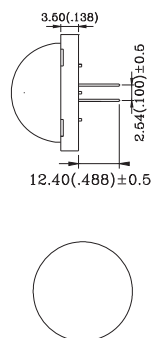
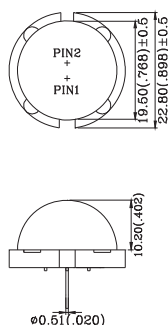
B-3514X-CA -LIGHT BAR

Part No	Ref. PN	Chip		Wave length λD (nm)	Electro-optical characteristics			
		Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA	
					Typ.	Max.	Typ.	
B-3514E-CA	BK010E163G	GaAsP	 Orange	628	2.1	2.8	3.2	
B-3514G-CA	BK010G162G	GaAlInP	 Yellow Green	570	2.2	2.8	3.0	
B-3514Y-CA	BK010Y161G	GaAsP	 Yellow	587	2.1	2.8	2.9	
B-3514SR-CA	BK010SR160G	GaAlInP	 Red	640	1.8	2.2	8.0	

DISPLAY

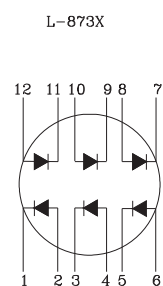
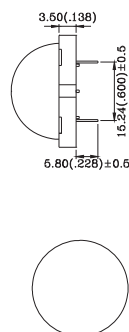
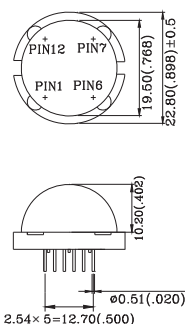
L-873X-2 -LIGHT BAR

DISPLAY



Part No	Ref. PN	Chip		Wave length λD (nm)	Electro-optical characteristics		
		Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
					Typ.	Max.	Typ.
L-873E-2	BK020E159G	GaAsP	 Orange	628	12.6	16.8	25.0
L-873G-2	BK020G158G	GaAlInP	 Yellow Green	570	13.2	16.8	20.0
L-873Y-2	BK020Y157G	GaAsP	 Yellow	587	12.6	16.8	20.0
L-873SR-2	BK020SR156G	GaAlInP	 Red	640	10.8	13.2	100.0
L-873UB-2	BK020UB155G	GaInN	 Blue	465	21.0	24.0	160.0

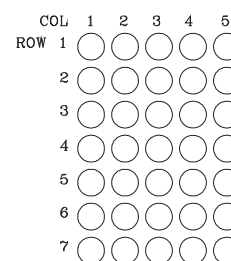
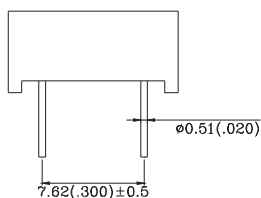
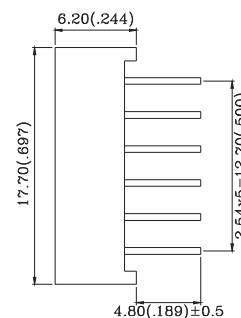
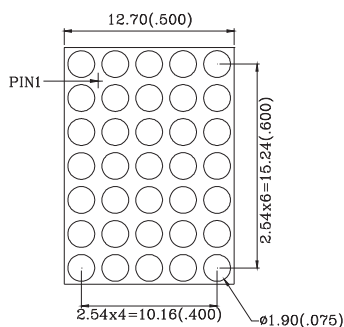
L-873X -LIGHT BAR



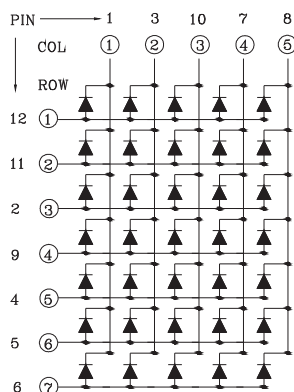
Part No	Ref. PN	Chip		Wave length λD (nm)	Electro-optical characteristics		
		Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
					Typ.	Max.	Typ.
L-873E	BK020E154G	GaAsP	 Orange	628	2.1	2.8	25.0
L-873G	BK020G153G	GaAlInP	 Yellow Green	570	2.2	2.8	20.0
L-873Y	BK020Y152G	GaAsP	 Yellow	587	2.1	2.8	20.0
L-873SR	BK020SR151G	GaAlInP	 Red	640	1.8	2.2	100.0

E-68 PARA LIGHT

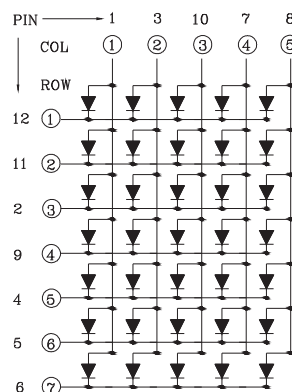
C/A-2570X -0.7 INCH,5x7 DOT MATRIX DISPLAY



C-2570X

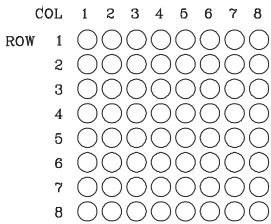
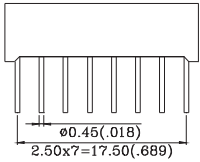
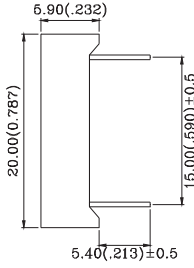
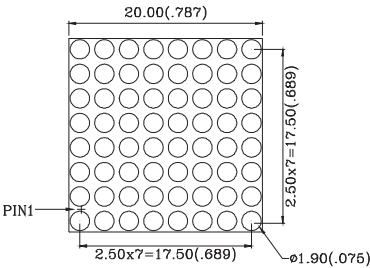
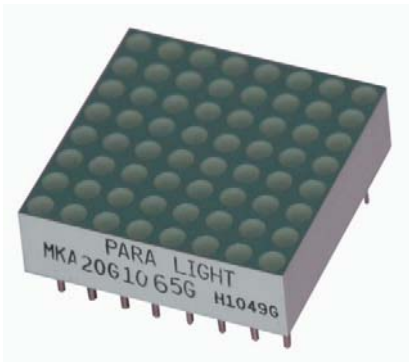


A-2570X

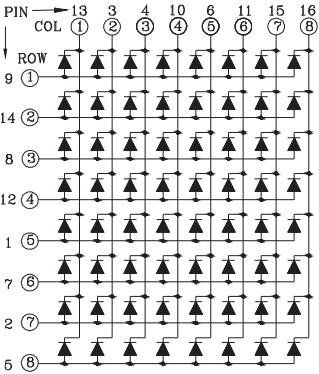


Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-2570E	MKC20E150G	A-2570E	MKA20E145G	GaAsP	 Orange	628	2.1	2.8	2.8
C-2570G	MKC20G149G	A-2570G	MKA20G144G	GaAlInP	 Yellow Green	570	2.2	2.8	2.6
C-2570Y	MKC20Y148G	A-2570Y	MKA20Y143G	GaAsP	 Yellow	587	2.1	2.8	2.6
C-2570SR	MKC20SR147G	A-2570SR	MKA20SR142G	GaAlInP	 Red	640	1.8	2.2	7.0
C-2570UB	MKC20UB146G	A-2570UB	MKA20UB141G	GaInN	 Blue	465	3.5	4.0	8.0

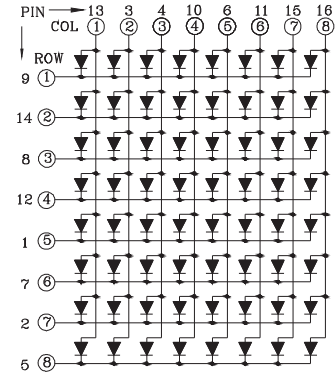
C/A-2880X -0.8 INCH,8x8 DOT MATRIX DISPLAY



C-2880X

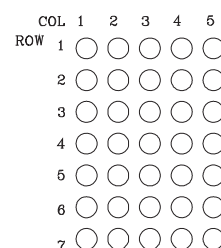
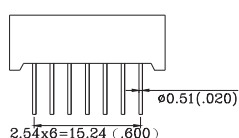
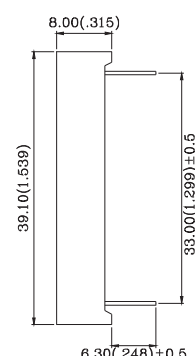
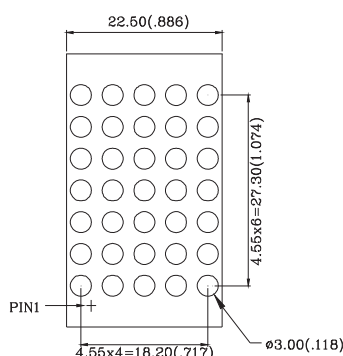
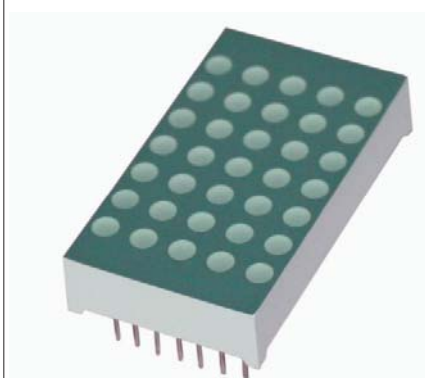


A-2880X



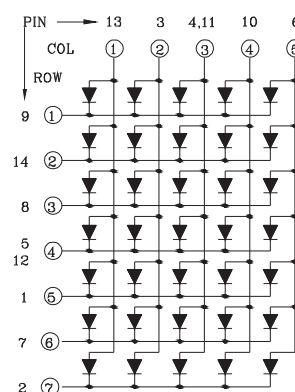
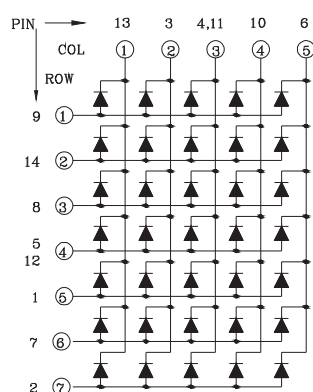
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
							VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color				
C-2880E	MKC20E140G	A-2880E	MKA20E135G	GaAsP	 Orange	628	2.1	2.8	2.8
C-2880G	MKC20G139G	A-2880G	MKA20G134G	GaAlInP	 Yellow Green	570	2.2	2.8	2.6
C-2880Y	MKC20Y138G	A-2880Y	MKA20Y133G	GaAsP	 Yellow	587	2.1	2.8	2.6
C-2880SR	MKC20SR137G	A-2880SR	MKA20SR132G	GaAlInP	 Red	640	1.8	2.2	7.0
C-2880UB	MKC20UB136G	A-2880UB	MKA20UB131G	GaInN	 Blue	465	3.5	4.0	8.0

C/A-3570X -1.5 INCH,5x7 DOT MATRIX DISPLAY



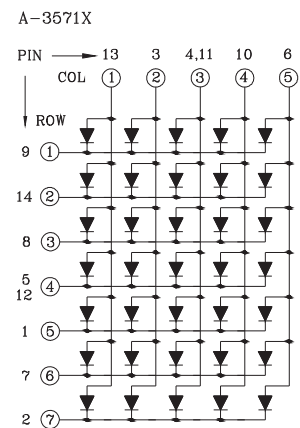
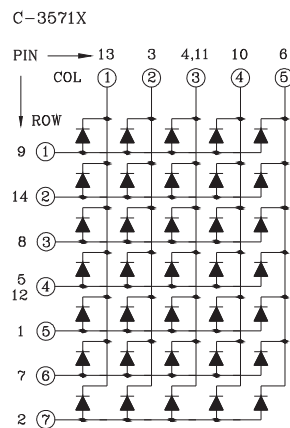
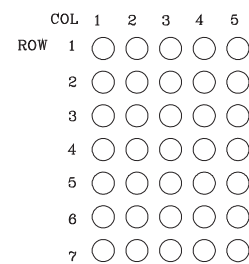
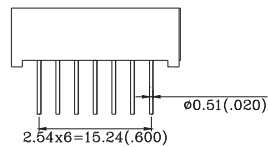
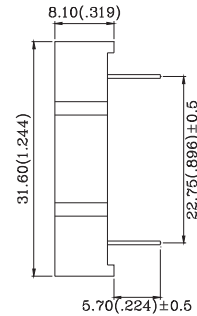
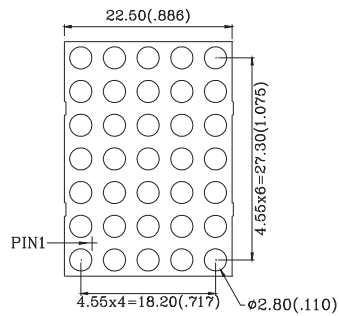
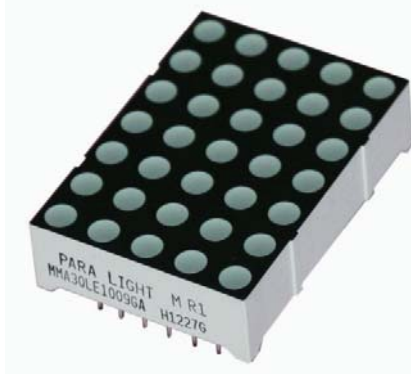
C-3570X

A-3570X



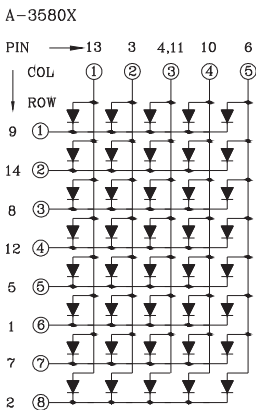
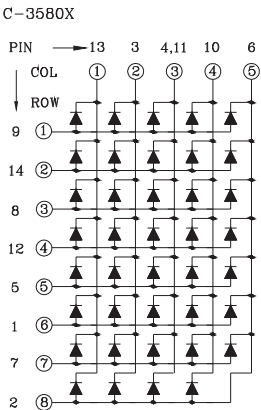
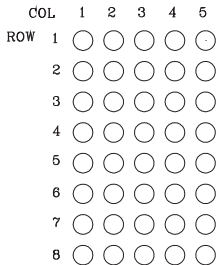
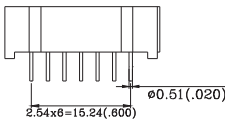
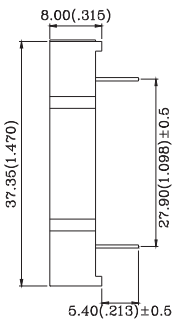
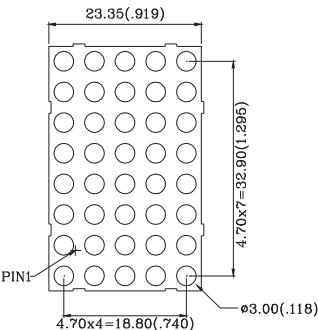
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-3570E	MKC30E130G	A-3570E	MKA30E125G	GaAsP	 Orange	628	2.1	2.8	2.8
C-3570G	MKC30G129G	A-3570G	MKA30G124G	GaAlInP	 Yellow Green	570	2.2	2.8	2.6
C-3570Y	MKC30Y128G	A-3570Y	MKA30Y123G	GaAsP	 Yellow	587	2.1	2.8	2.6
C-3570SR	MKC30SR127G	A-3570SR	MKA30SR122G	GaAlInP	 Red	640	1.8	2.2	8.0
C-3570UB	MKC30UB126G	A-3570UB	MKA30UB121G	GaInN	 Blue	465	3.5	4.0	9.6

C/A-3571X -1.2 INCH,5x7 DOT MATRIX DISPLAY



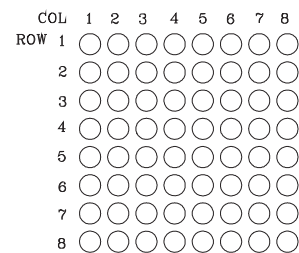
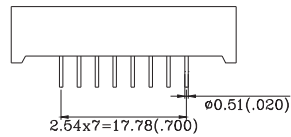
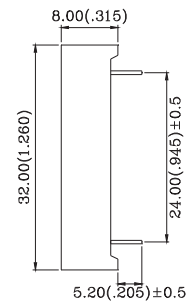
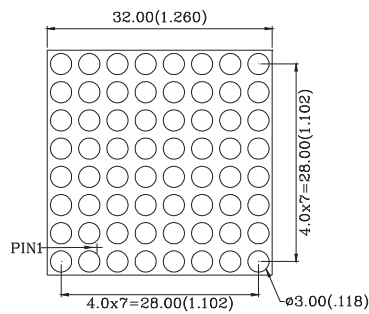
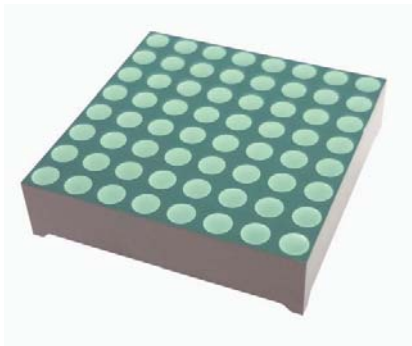
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-3571E	MKC30E120G	A-3571E	MKA30E115G	GaAsP	 Orange	628	2.1	2.8	3.0
C-3571G	MKC30G119G	A-3571G	MKA30G114G	GaAlInP	 Yellow Green	570	2.2	2.8	2.8
C-3571Y	MKC30Y118G	A-3571Y	MKA30Y113G	GaAsP	 Yellow	587	2.1	2.8	2.8
C-3571SR	MKC30SR117G	A-3571SR	MKA30SR112G	GaAlInP	 Red	640	1.8	2.2	8.0
C-3571UB	MKC30UB116G	A-3571UB	MKA30UB111G	GaInN	 Blue	465	3.5	4.0	10.0

C/A-3580X -1.5 INCH,5x8 DOT MATRIX DISPLAY

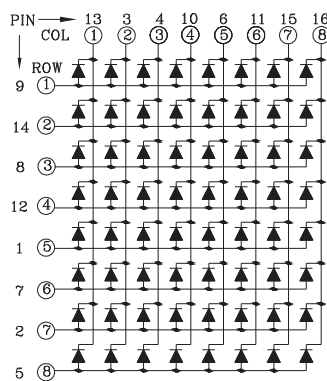


Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
							VF(V)20mA		IV(mcd)10mA
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		Typ.	Max.	Typ.
C-3580E	MKC30E110G	A-3580E	MKA30E106G	GaAsP	 Orange	628	2.1	2.8	3.0
C-3580G	MKC30G109G	A-3580G	MKA30G105G	GaAllnP	 Yellow Green	570	2.2	2.8	2.8
C-3580Y	MKC30Y0108G	A-3580Y	MKA30Y104G	GaAsP	 Yellow	587	2.1	2.8	2.8
C-3580SR	MKC30SR107G	A-3580SR	MKA30SR103G	GaAllnP	 Red	640	1.8	2.2	8.0

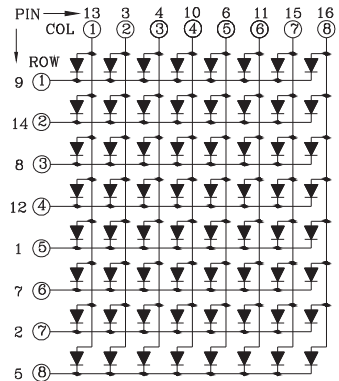
C/A-3880X -1.2 INCH,8x8 DOT MATRIX DISPLAY



C-3880X

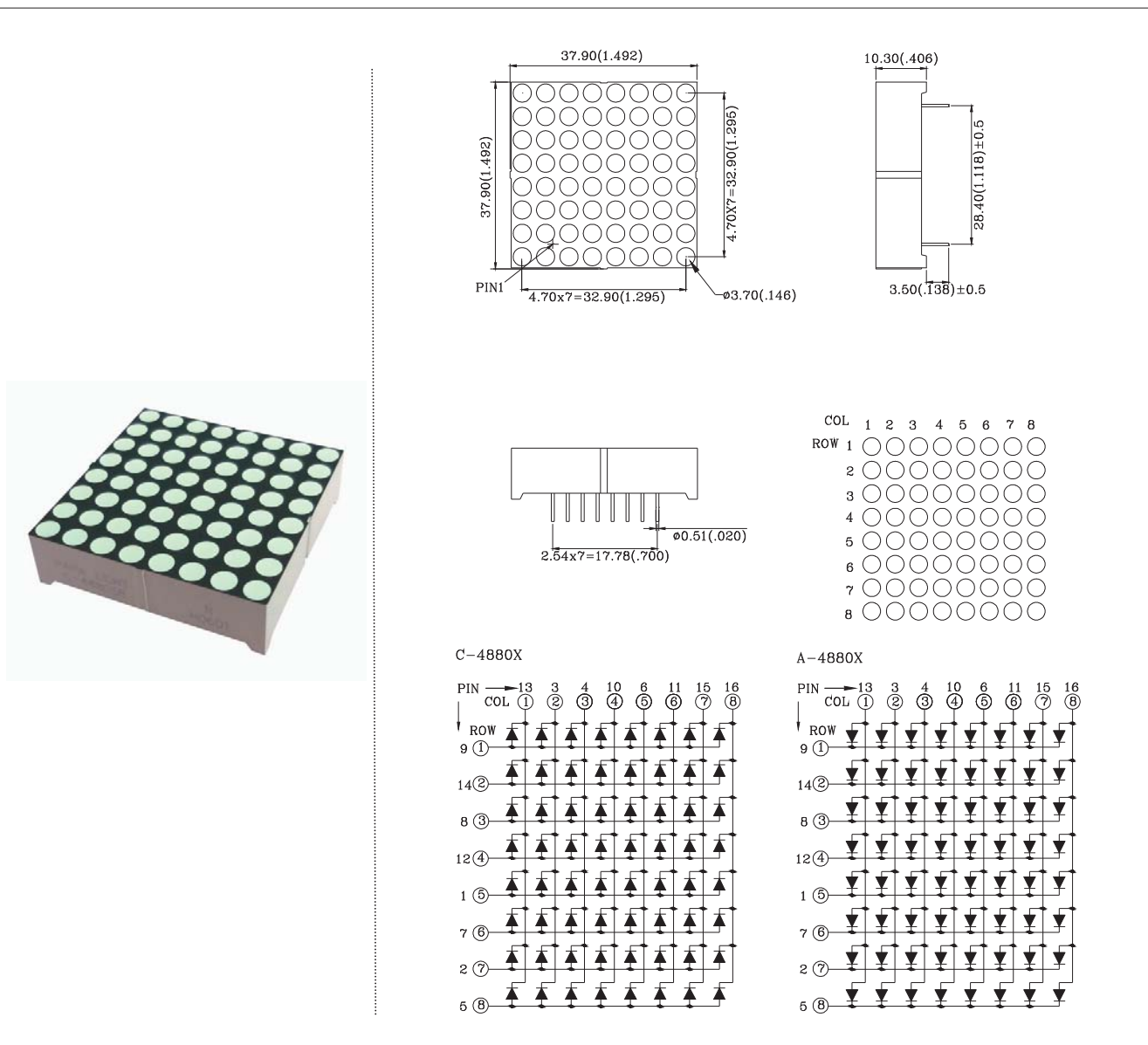


A-3880X



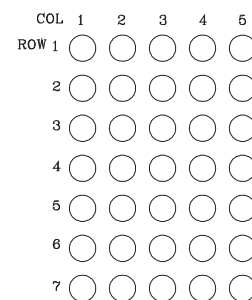
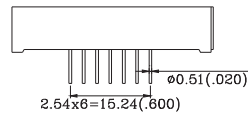
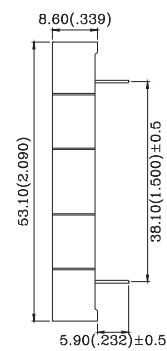
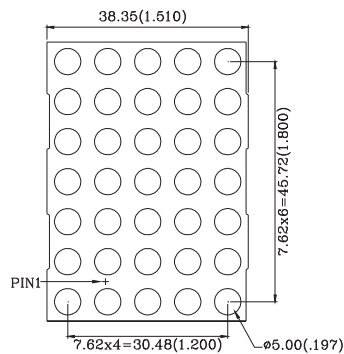
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-3880E	MKC30E102G	A-3880E	MKA30E097G	GaAsP	 Orange	628	2.1	2.8	3.0
C-3880G	MKC30G101G	A-3880G	MKA30G096G	GaAlInP	 Yellow Green	570	2.2	2.8	2.8
C-3880Y	MKC30Y100G	A-3880Y	MKA30Y095G	GaAsP	 Yellow	587	2.1	2.8	2.8
C-3880SR	MKC30SR099G	A-3880SR	MKA30SR094G	GaAlInP	 Red	640	1.8	2.2	8.0
C-3880UB	MKC30UB098G	A-3880UB	MKA30UB093G	GaInN	 Blue	465	3.5	4.0	12.0

C/A-4880X -1.5 INCH,8x8 DOT MATRIX DISPLAY

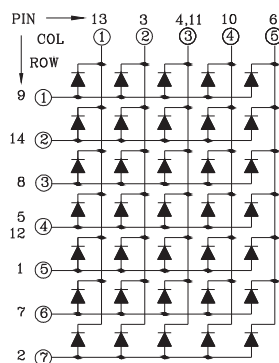


Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-4880E	MKC40E092G	A-4880E	MKA40E088G	GaAsP	 Orange	628	2.1	2.8	3.6
C-4880G	MKC40G091G	A-4880G	MKA40G087G	GaAlInP	 Yellow Green	570	2.2	2.8	3.4
C-4880Y	MKC40Y090G	A-4880Y	MKA40Y086G	GaAsP	 Yellow	587	2.1	2.8	3.4
C-4880SR	MKC40SR089G	A-4880SR	MKA40SR085G	GaAlInP	 Red	640	1.8	2.2	10.0

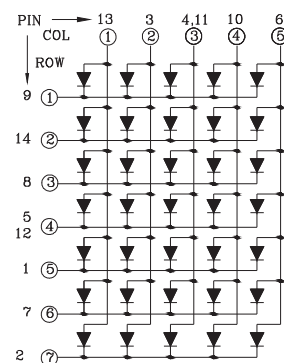
C/A-5570X -2.0 INCH,5x7 DOT MATRIX DISPLAY



C-5570X

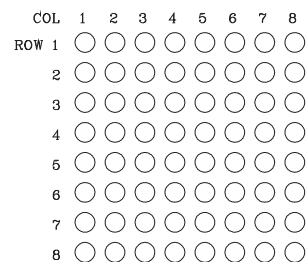
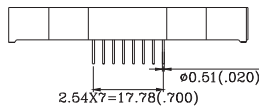
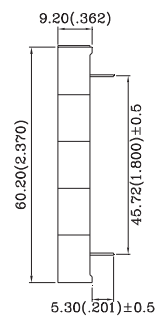
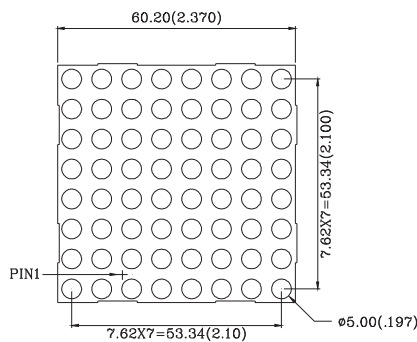


A-5570X



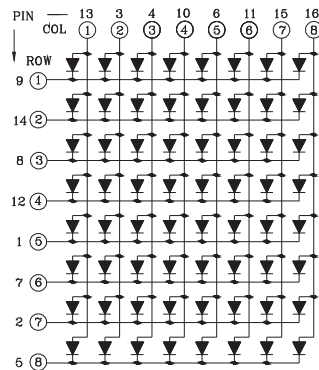
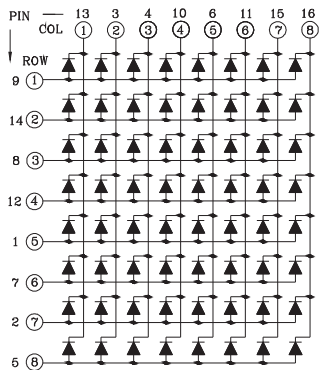
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-5570E	MKC50E084G	A-5570E	MKA50E079G	GaAsP	 Orange	628	2.1	2.8	3.6
C-5570G	MKC50G083G	A-5570G	MKA50G078G	GaAlInP	 Yellow Green	570	2.2	2.8	3.4
C-5570Y	MKC50Y082G	A-5570Y	MKA50Y077G	GaAsP	 Yellow	587	2.1	2.8	3.4
C-5570SR	MKC50SR081G	A-5570SR	MKA50SR076G	GaAlInP	 Red	640	1.8	2.2	10.0
C-5570UB	MKC50UB080G	A-5570UB	MKA50UB075G	GaInN	 Blue	465	3.5	4.0	15.0

C/A-5880X -2.4 INCH,8x8 DOT MATRIX DISPLAY



C-5880X

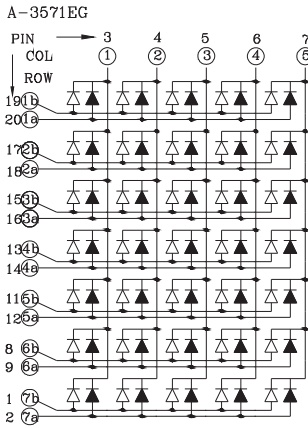
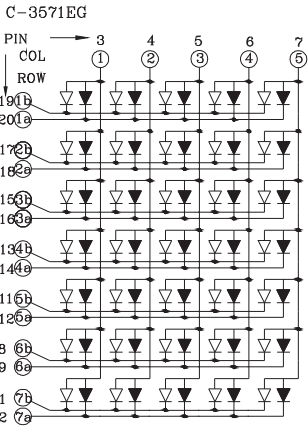
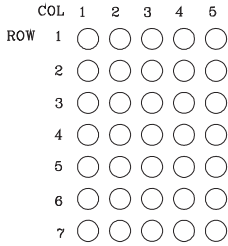
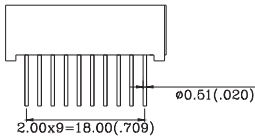
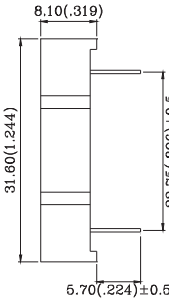
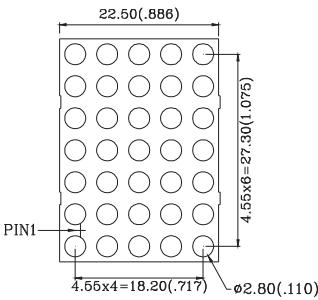
A-5880X



Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
							VF(V)20mA		IV(mcd)10mA
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		Typ.	Max.	Typ.
C-5880E	MKC50E074G	A-5880E	MKA50E070G	GaAsP	 Orange	628	2.1	2.8	3.6
C-5880G	MKC50G073G	A-5880G	MKA50G069G	GaAllnP	 Yellow Green	570	2.2	2.8	3.4
C-5880Y	MKC50Y072G	A-5880Y	MKA50Y068G	GaAsP	 Yellow	587	2.1	2.8	3.4
C-5880SR	MKC50SR071G	A-5880SR	MKA50SR067G	GaAllnP	 Red	640	1.8	2.2	10.0

C/A-3571EG -1.2 INCH,5x7 DOT MATRIX DISPLAY(MULTI-COLOR)

DISPLAY

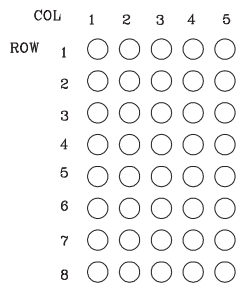
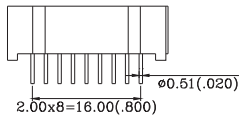
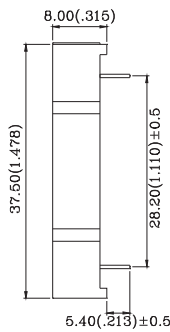
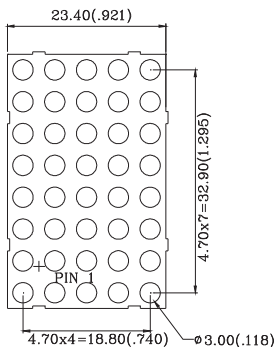
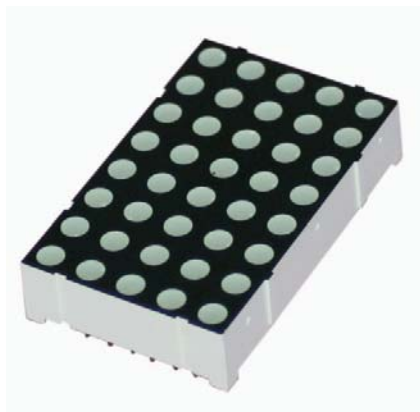


► a for Hi.effi Red color chip
◄ b for Yellow Green color chip

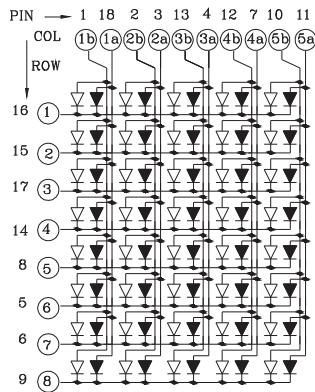
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-3571EG	MKC30EG066G	A-3571EG	MKA30EG065G	GaAsP	 Orange	628	2.1	2.8	3.0
				GaAlInP	 Yellow Green	570	2.2	2.8	2.8

C/A-3580EG -1.5 INCH,5x8 DOT MATRIX DISPLAY(MULTI-COLOR)

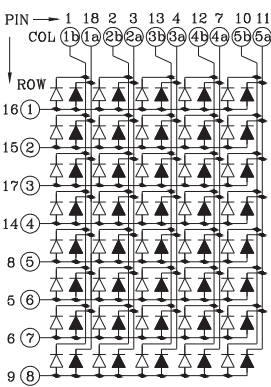
DISPLAY



C-3580EG



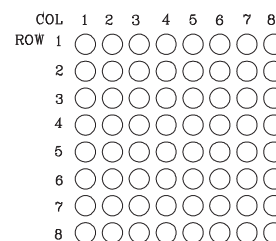
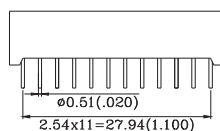
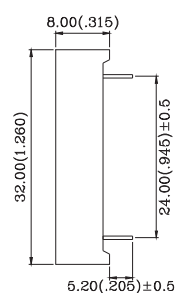
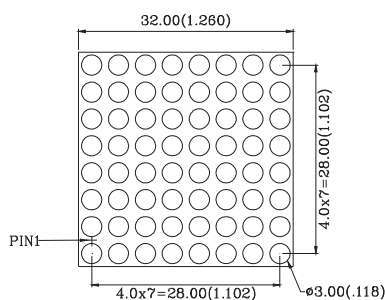
A-3580EG



► a for Hi.effi Red color chip
◄ b for Yellow Green color chip

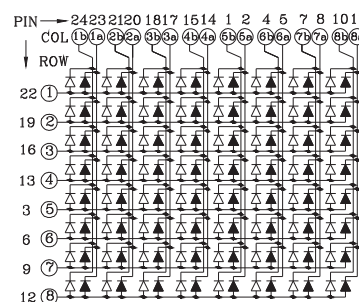
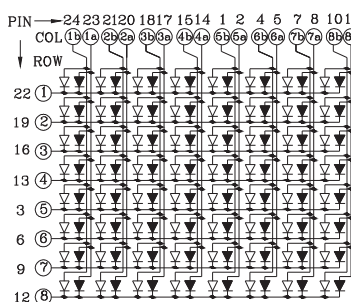
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-3580EG	MKC30EG064G	A-3580EG	MKA30EG063G	GaAsP	 Orange	628	2.1	2.8	3.0
				GaAlInP	 Yellow Green	570	2.2	2.8	2.8

C/A-3880EG -1.2 INCH,8x8 DOT MATRIX DISPLAY(MULTI-COLOR)



C-3880EG

A-3880EG

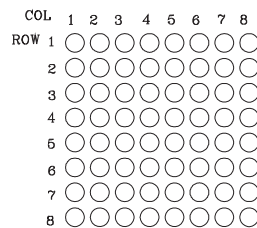
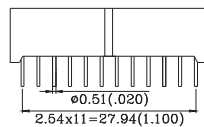
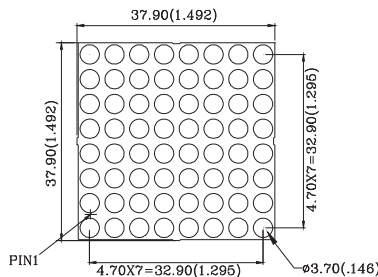
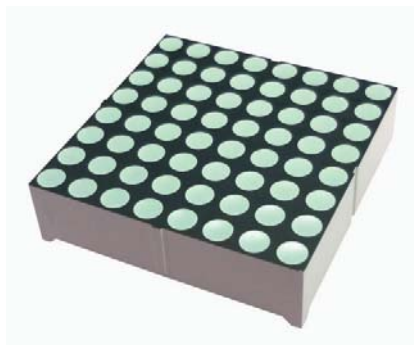


a for Hi.effi Red color chip
 b for Yellow Green color chip

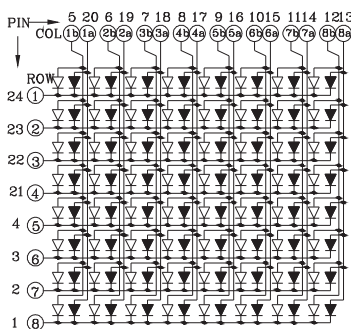
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-3880EG	MKC30EG062G	A-3880EG	MKA30EG061G	GaAsP	 Orange	628	2.1	2.8	3.0
				GaAlInP	 Yellow Green	570	2.2	2.8	2.8

C/A-4880EG -1.5 INCH,8x8 DOT MATRIX DISPLAY(MULTI-COLOR)

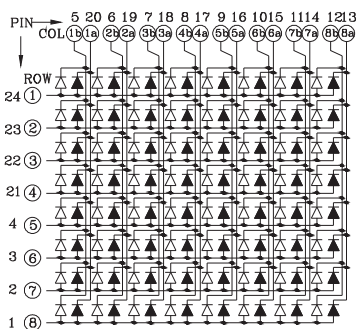
DISPLAY



C-4880EG



A-4880EG

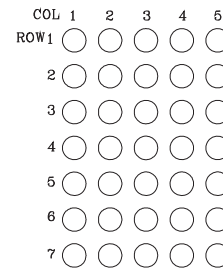
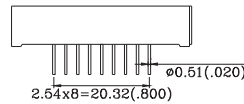
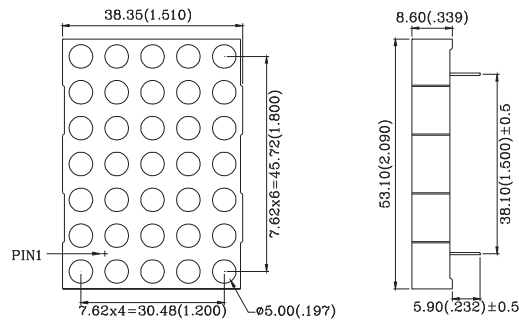


► a for Hi.effi Red color chip
◄ b for Yellow Green color chip

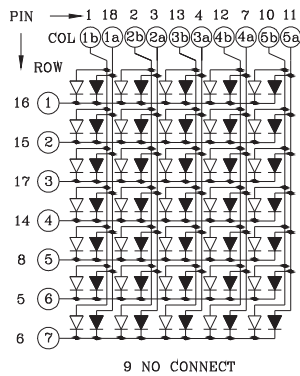
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-4880EG	MKC40EG060G	A-4880EG	MKA40EG059G	GaAsP	 Orange	628	2.1	2.8	3.6
				GaAlInP	 Yellow Green	570	2.2	2.8	3.4

C/A-5570EG -2.0 INCH,5x7 DOT MATRIX DISPLAY(MULTI-COLOR)

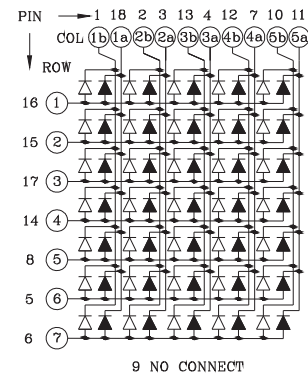
DISPLAY



C-5570EG



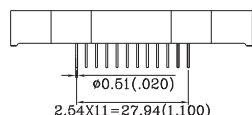
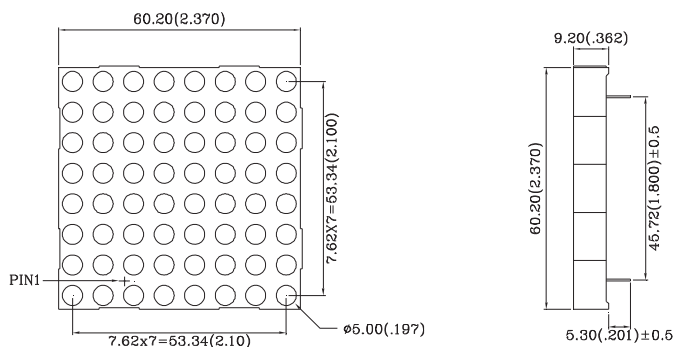
A-5570EG



► a for Hi.effi Red color chip
◄ b for Yellow Green color chip

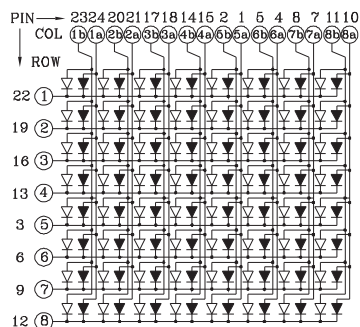
Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-5570EG	MKC50EG058G	A-5570EG	MKA50EG057G	GaAsP	 Orange	628	2.1	2.8	3.6
				GaAlInP	 Yellow Green	570	2.2	2.8	3.4

C/A-5880EG -2.4 INCH,5x8 DOT MATRIX DISPLAY(MULTI-COLOR)

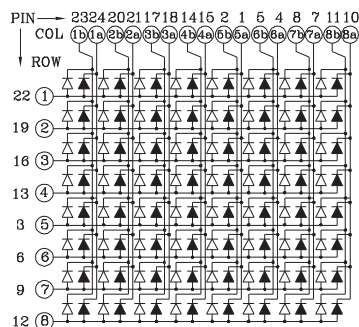


COL	1	2	3	4	5	6	7	8
ROW 1	○	○	○	○	○	○	○	○
2	○	○	○	○	○	○	○	○
3	○	○	○	○	○	○	○	○
4	○	○	○	○	○	○	○	○
5	○	○	○	○	○	○	○	○
6	○	○	○	○	○	○	○	○
7	○	○	○	○	○	○	○	○
8	○	○	○	○	○	○	○	○

C-5880EG



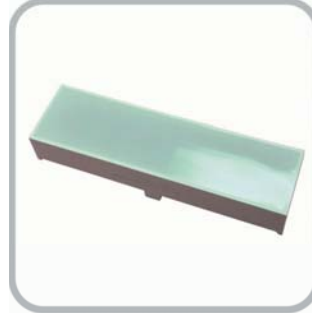
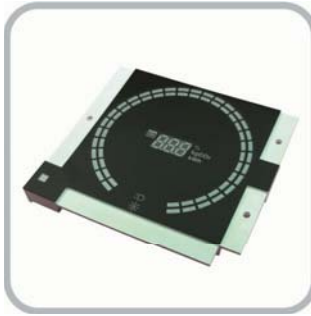
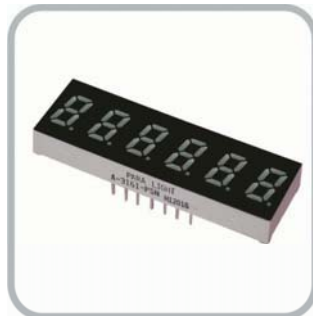
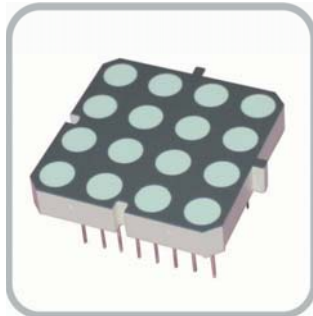
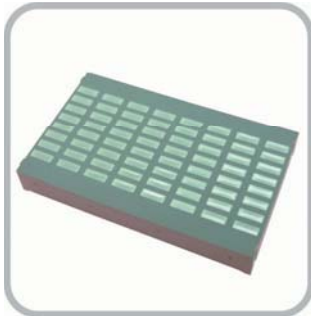
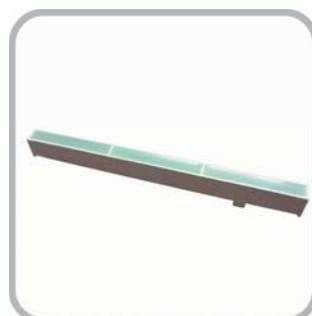
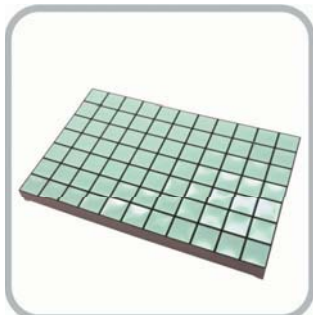
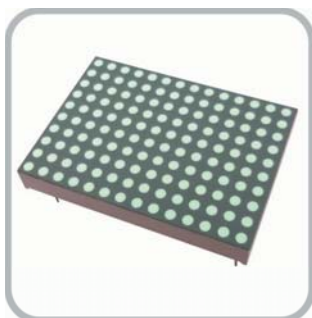
A-5880EG



a for Hi.effi Red color chip
 b for Yellow Green color chip

Common Cathode		Common Anode		Chip		Wave length λD (nm)	Electro-optical characteristics		
Part No	Ref. PN	Part No	Ref. PN	Raw Material	Emitted Color		VF(V)20mA		IV(mcd)10mA
							Typ.	Max.	Typ.
C-5880EG	MKC50EG056G	A-5880EG	MKA50EG055G	GaAsP	 Orange	628	2.1	2.8	3.6
				GaAlInP	 Yellow Green	570	2.2	2.8	3.4

Display Product Customer Design

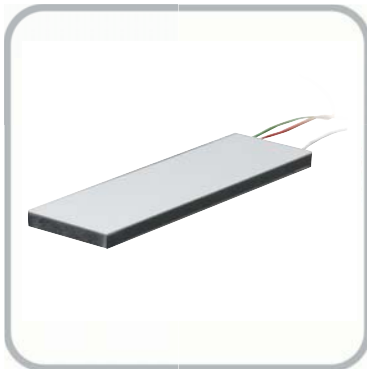


LCM

Application:



LCM Product Customer Design



[illegible]

[illegible]