

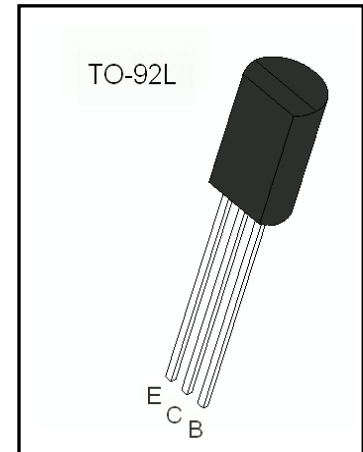
Audio Power Amplifier

High current application

- High current : $I_C=2A$
- Complement to STB1277L

Absolute Maximum Ratings ($T_a=25^{\circ}C$)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	BV_{CBO}	30	V
Collector-Emitter Voltage	BV_{CEO}	30	V
Emitter-Base Voltage	BV_{EBO}	5	V
Collector Current	I_C	2	A
Collector Power Dissipation	P_C	1	W
Junction Temperature	T_j	150	$^{\circ}C$
Storage Temperature	T_{stg}	-55~150	$^{\circ}C$

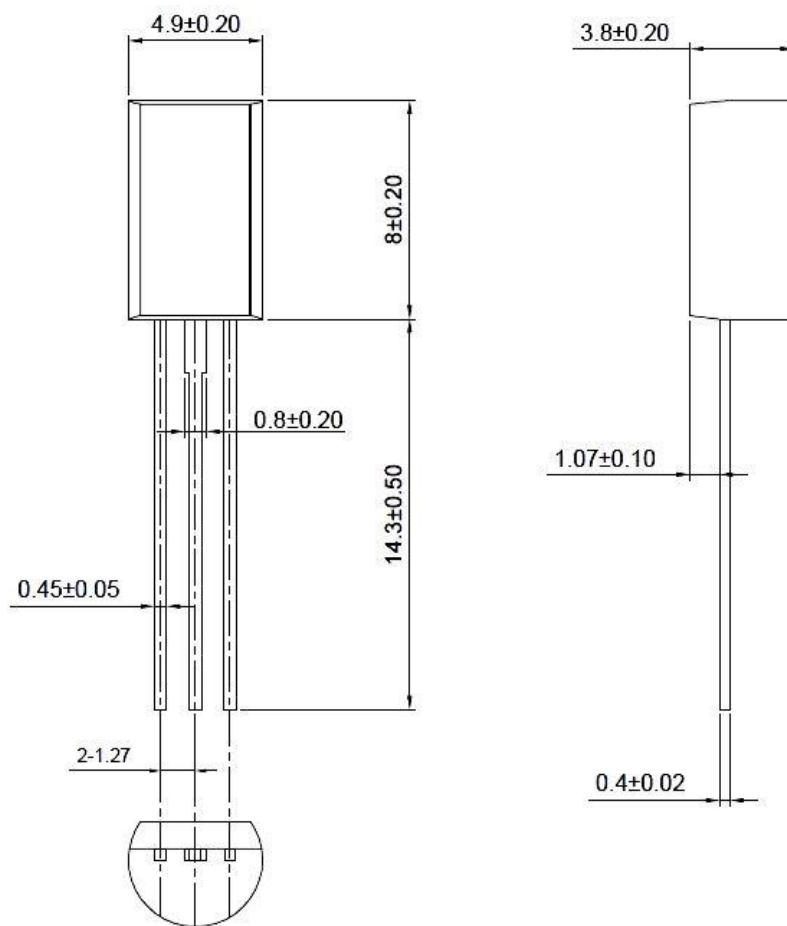


Electrical Characteristics ($T_a=25^{\circ}C$)

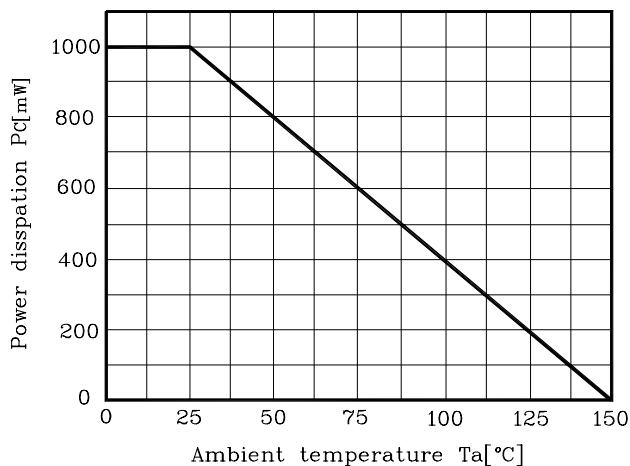
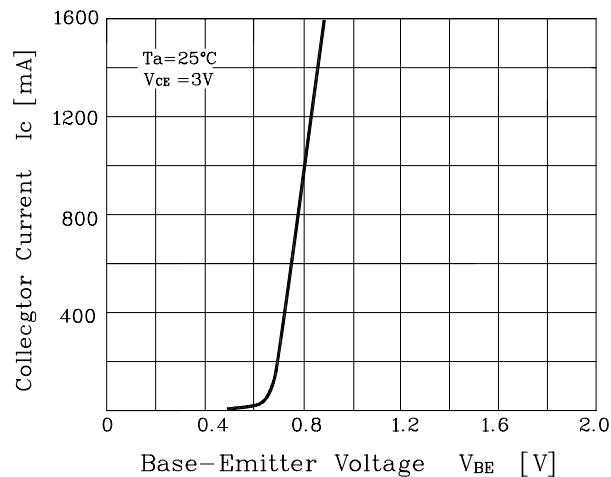
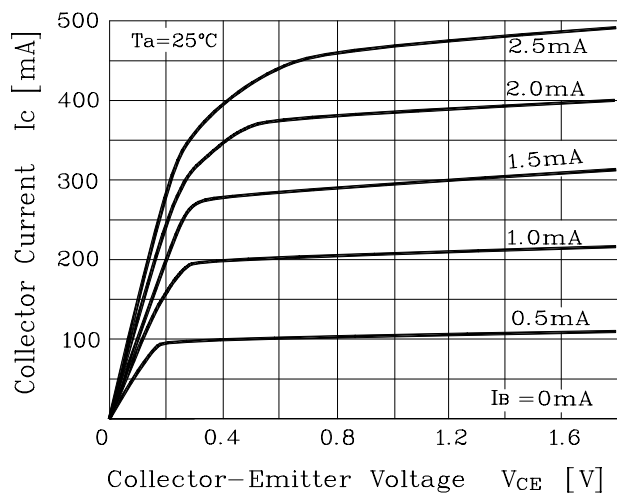
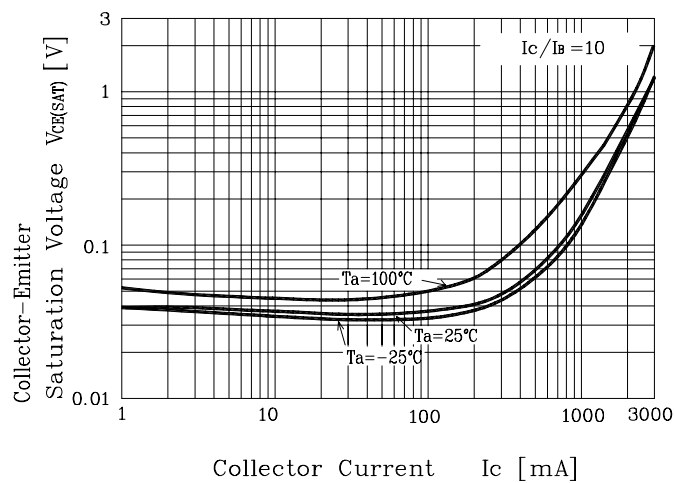
Parameter	Symbol	Conditions	Value			Unit
			Min	Typ	Max	
Collector-base breakdown voltage	BV_{CBO}	$I_C = 100\mu A, I_E = 0$	30			V
Collector-emitter breakdown voltage	BV_{CEO}	$I_C = 10mA, I_B = 0$	30			V
Emitter-base breakdown voltage	BV_{EBO}	$I_E = 100\mu A, I_C = 0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB} = 30V, I_E = 0$			100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5V, I_C = 0$			100	nA
DC current gain	h_{FE}	$V_{CE} = 2V, I_C = 500mA$	100		320	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 2A, I_B = 0.2A$			0.8	V
Base -emitter voltage	$V_{BE(on)}$	$V_{CE} = 2V, I_C = 0.5A$			1.0	V
Transition frequency	f_T	$V_{CE} = 5V, I_C = 50mA$	50			MHz
Collector output capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0, f = 1MHz$		48		pF

h_{FE} Classification

Classification	O	Y
h_{FE}	100-200	160-320

Package Dimensions (Unit:mm)


Electrical Characteristic Curves

Fig. 1 $P_C - T_a$

Fig. 2 $I_C - V_{BE}$

Fig. 3 $I_C - V_{CE}$

Fig. 4 $V_{CE(sat)} - I_C$

Fig. 5 $h_{FE} - I_C$
