



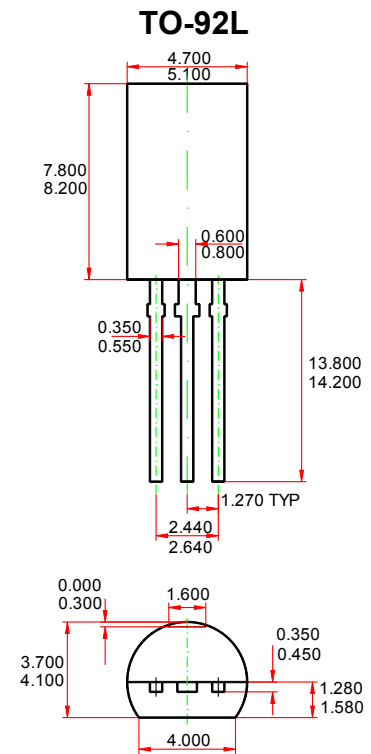
1.EMITTER  
2.COLLECTOR  
3.BASE

### Features

- ◇ Audio power amplifier
- ◇ Complement to Application

### MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise noted)

Symbol	Parameter	Value	Units
V <sub>CB0</sub>	Collector-Base Voltage	-30	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-30	V
V <sub>EBO</sub>	Emitter-Base Voltage	-5	V
I <sub>C</sub>	Collector Current -Continuous	-2	A
P <sub>C</sub>	Collector Power Dissipation	1	W
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature	-55 to +150	°C



### ELECTRICAL CHARACTERISTICS (T<sub>amb</sub>=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYPE	MAX	UNIT
Collector-base breakdown voltage	V(BR) <sub>CB0</sub>	I <sub>C</sub> = -100μA, I <sub>E</sub> =0	-30			V
Collector-emitter breakdown voltage	V(BR) <sub>CEO</sub>	I <sub>C</sub> = -10 mA, I <sub>B</sub> =0	-30			V
Emitter-base breakdown voltage	V(BR) <sub>EBO</sub>	I <sub>E</sub> = -1mA, I <sub>C</sub> =0	-5			V
Collector cut-off current	I <sub>CB0</sub>	V <sub>CB</sub> = -30V, I <sub>E</sub> =0			-0.1	μ A
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = -5V, I <sub>C</sub> =0			-0.1	μ A
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> =-2V, I <sub>C</sub> = -500mA	100		320	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = -1.5 A, I <sub>B</sub> = -0.03A			-2	V
Base-emitter voltage	V <sub>BE</sub>	I <sub>C</sub> = -500 mA, V <sub>CE</sub> = -2V			-1	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = -2 V, I <sub>C</sub> = -500mA		120		MHZ
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> =-10V, I <sub>E</sub> =0, f=1MHZ		48		pF

### CLASSIFICATION OF h<sub>FE</sub>

Rank	O	Y
Range	100-200	160-320

### Typical Characteristics

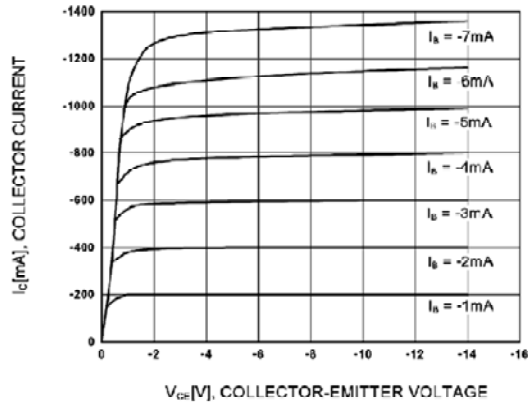


Figure 1. Static Characteristic

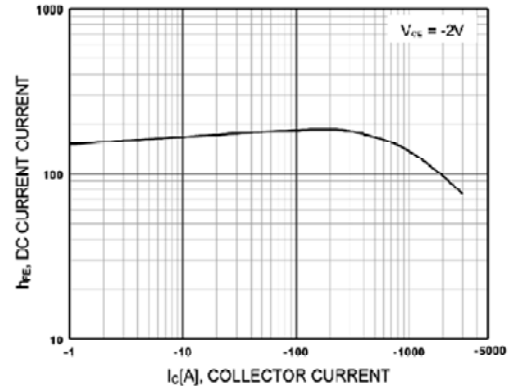


Figure 2. DC current Gain

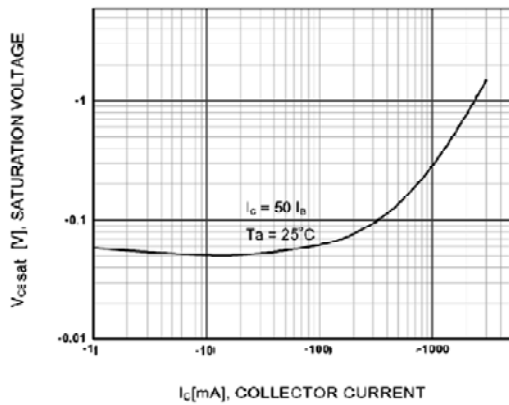


Figure 3. Collector-Emitter Saturation Voltage

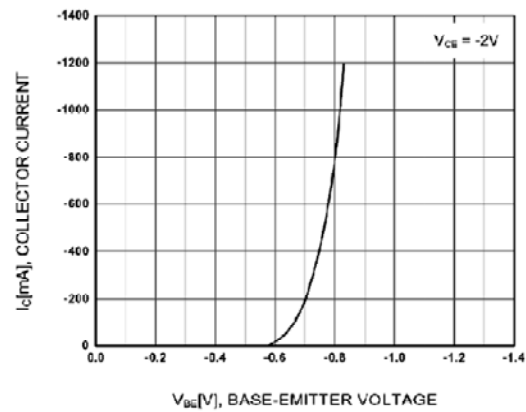


Figure 4. Base-Emitter On Voltage

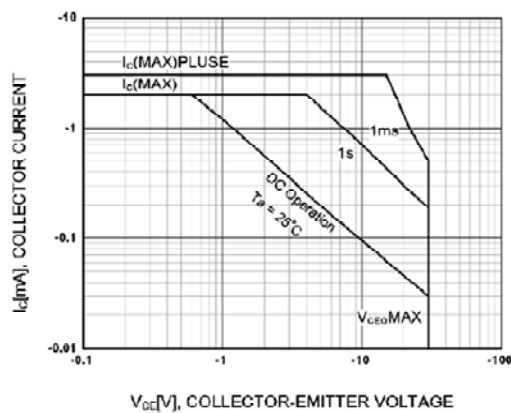


Figure 5. Safe Operating Area

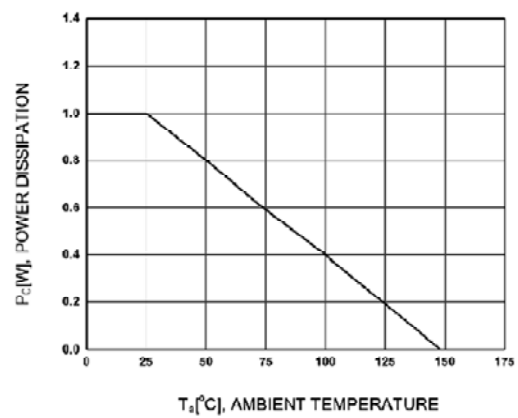


Figure 6. Power Derating

Package	Packing	Quantity	Box	Box Size(mm)	Carton	Carton Size(mm)
TO-92L	Bulk	500pcs/Bag	5000pcs	245×170×100	50,000pcs	525×375×270
TO-92L	Tape	2000pcs/Tap	2000pcs	333×203×42	20,000pcs	493×400×264