

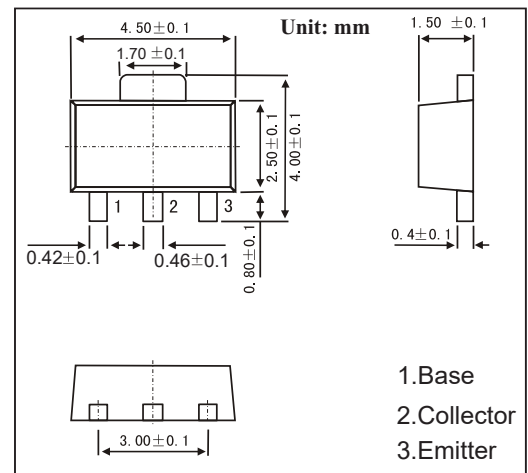
## SOT-89 Plastic-Encapsulate Transistors

### FEATURES

- Suitable for output stage of 3 watts amplifier
- Small flat package
- PC = 1.0 to 2.0 W
- NPN Transistors

### MECHANICAL DATA

- Case style:SOT-89molded plastic
- Mounting position:any



### MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V <sub>CB0</sub>	30	V
Collector - Emitter Voltage	V <sub>CEO</sub>	30	
Emitter - Base Voltage	V <sub>EB0</sub>	5	
Collector Current - Continuous	I <sub>C</sub>	1.5	A
Base Current	I <sub>B</sub>	0.3	
Collector Power Dissipation (Note.1)	P <sub>C</sub>	500	mW
		1000	
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature Range	T <sub>stg</sub>	-55 to +150	

Note.1: Mounted on a ceramic substrate (250 mm<sup>2</sup> × 0.8 t)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V <sub>CB0</sub>	I <sub>C</sub> = 1mA, I <sub>E</sub> = 0	30			V
Collector- emitter breakdown voltage	V <sub>CEO</sub>	I <sub>C</sub> = 10mA, I <sub>B</sub> = 0	30			
Emitter - base breakdown voltage	V <sub>EB0</sub>	I <sub>E</sub> = 1mA, I <sub>C</sub> = 0	5			
Collector-base cut-off current	I <sub>CB0</sub>	V <sub>CB</sub> = 30V, I <sub>E</sub> = 0			0.1	uA
Emitter cut-off current	I <sub>EB0</sub>	V <sub>EB</sub> = 5V, I <sub>C</sub> =0			0.1	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =1.5A, I <sub>B</sub> =30mA			2	V
Base - emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =1.5A, I <sub>B</sub> =30mA			1.2	
Base - emitter voltage	V <sub>BE</sub>	V <sub>CE</sub> = 2V, I <sub>C</sub> = 500mA			1	
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> = 2V, I <sub>C</sub> = 500mA	100		320	
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 10V, I <sub>E</sub> = 0, f=1MHz			40	pF
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = 2V, I <sub>C</sub> = 500mA		120		MHz

## RATINGS AND CHARACTERISTIC CURVES

