

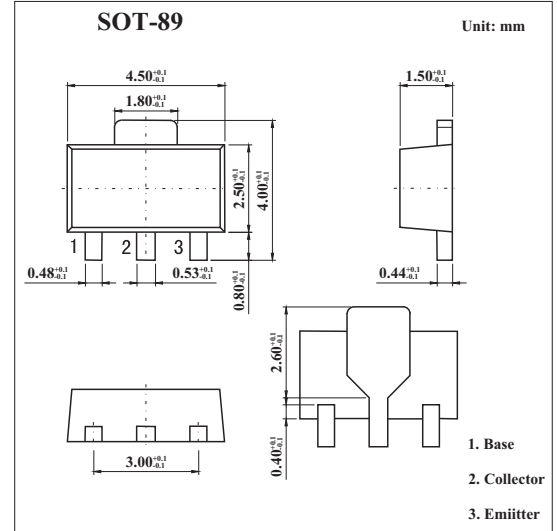
## SOT-89 Plastic-Encapsulate Transistors

### Features

- High current (max. 500mA).
- Low voltage (max. 150 V).
- Surface Mount NPN Silicon Transistor

### MECHANICAL DATA

- Case style: SOT-89 molded 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>	180	V
Collector-emitter voltage	V <sub>CEO</sub>	160	V
Emitter-base voltage	V <sub>EBO</sub>	6	V
Collector current (DC)	I <sub>C</sub>	600	mA
power dissipation	P <sub>D</sub>	1.2	W
thermal resistance Junction-to-ambient	R <sub>θJA</sub>	104	°C/W
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-65 to +150	°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector to base breakdown voltage	V <sub>CB0</sub>	I <sub>C</sub> =100 μA	180			V
Collector to emitter breakdown voltage	V <sub>CEO</sub>	I <sub>C</sub> =1.0mA	160			V
Emitter to base breakdown voltage	V <sub>EBO</sub>	I <sub>E</sub> =10 μA	6.0			V
Collector cutoff current	I <sub>CB0</sub>	V <sub>CB</sub> = 120 V, I <sub>E</sub> = 0			50	nA
		V <sub>CB</sub> = 120 V, T <sub>A</sub> =100°C			50	μA
DC current gain	h <sub>FE</sub>	I <sub>C</sub> = 1.0 mA; V <sub>CE</sub> = 5.0 V	80			
		I <sub>C</sub> = 10mA; V <sub>CE</sub> = 5.0V	80		250	
		I <sub>C</sub> = 50 mA; V <sub>CE</sub> = 5.0V	30			
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = 10 mA; I <sub>B</sub> = 1.0mA			0.15	V
		I <sub>C</sub> = 50 mA; I <sub>B</sub> = 5.0mA			0.20	V
Base to emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = 10 mA; I <sub>B</sub> = 1.0mA			1.00	V
		I <sub>C</sub> = 50 mA; I <sub>B</sub> = 5.0mA			1.00	V
Output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 10 V, I <sub>E</sub> = 0, f=1.0MHz			6.0	pF
Transition frequency	f <sub>T</sub>	I <sub>C</sub> = 10 mA; V <sub>CE</sub> =10V; f = 100 MHz	100		300	MHz

Marking	1G6
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