

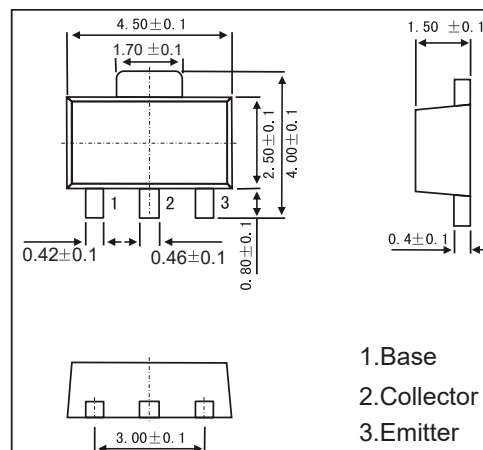
## SOT-89 Plastic-Encapsulate Transistors

### FEATURES

- Low Collector-Emitter Saturation Voltage
- Large Collector Power Dissipation and Current
- Mini Power Type Package
- Transistors NPN

### 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	$V_{CB0}$	40	V
Collector - Emitter Voltage	$V_{CEO}$	30	
Emitter - Base Voltage	$V_{EB0}$	7	
Collector Current - Continuous	$I_c$	5	A
Collector Power Dissipation	$P_c$	750	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	167	°C/W
Junction Temperature	$T_J$	150	°C
Storage Temperature Range	$T_{stg}$	-55 to +150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	$V_{CB0}$	$I_c = 100 \mu A, I_E = 0$	40			V
Collector- emitter breakdown voltage	$V_{CEO}$	$I_c = 1 mA, I_B = 0$	30			
Emitter - base breakdown voltage	$V_{EB0}$	$I_E = 100 \mu A, I_c = 0$	7			
Collector-base cut-off current	$I_{CB0}$	$V_{CB} = 10 V, I_E = 0$			100	nA
Emitter cut-off current	$I_{EB0}$	$V_{EB} = 7 V, I_c = 0$			100	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c = 3 A, I_B = 100 mA$			1	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_c = 3 A, I_B = 100 mA$			1.2	
DC current gain	$h_{FE(1)}$	$V_{CE} = 2 V, I_c = 1 mA$		200		
	$h_{FE(2)}$	$V_{CE} = 2 V, I_c = 500 mA$	230		800	
	$h_{FE(3)}$	$V_{CE} = 2 V, I_c = 2 A$	150			
Collector output capacitance	$C_{ob}$	$V_{CB} = 20 V, I_E = 0, f = 1 MHz$			50	pF
Transition frequency	$f_t$	$V_{CE} = 6 V, I_c = 50 mA, f = 200 MHz$		150		MHz

## RATINGS AND CHARACTERISTIC CURVES

