

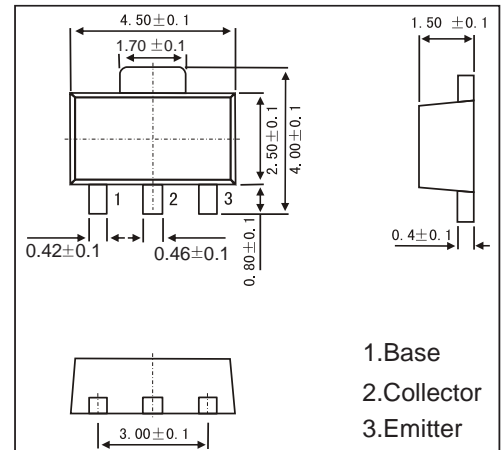
SOT-89 Plastic-Encapsulate Transistors

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}	20	
Emitter - Base Voltage	V_{EBO}	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}	$I_c = 1 mA, I_B = 0$	20			
Emitter - base breakdown voltage	V_{EBO}	$I_E = 100 \mu A, I_c = 0$	7			
Collector-base cut-off current	I_{CB0}	$V_{CB} = 10 V, I_E = 0$			100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = 7 V, I_c = 0$			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		950	
	$h_{FE(3)}$	$V_{CE} = 2 V, I_c = 2 A$	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

