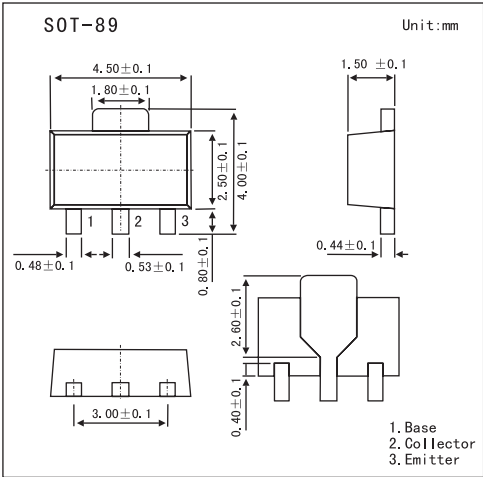
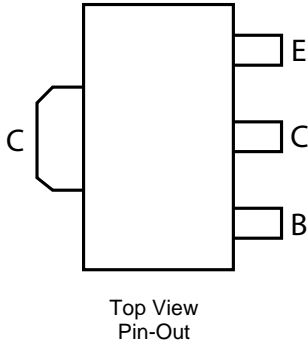
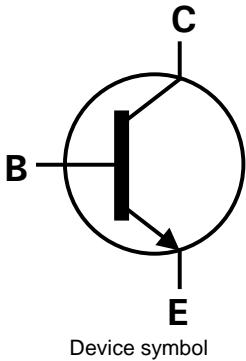


## 100V NPN SILICON PLANAR MEDIUM POWER TRANSISTOR

### ■ Features

- $BV_{CEO} > 100V$
- $I_C = 1A$  high Continuous Current
- Low saturation voltage  $V_{CE(sat)} < 300mV @ 500mA$



### ■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CBO}$	120	V
Collector-Emitter Voltage	$V_{CEO}$	100	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Continuous Collector Current	$I_C$	1	mA
Peak Pulse Current	$I_{CM}$	2	A
Base Current	$I_B$	200	mA
Power Dissipation at $T_{amb}=25^\circ C$	$P_{tot}$	1	W
Operating and Storage Temperature Range	$T_j:T_{stg}$	-65 to 150	$^\circ C$

**■ Electrical Characteristics Ta = 25°C**

Parameter	Symbol	Testconditons	Min	Max	Unit
Breakdown Voltages	$V_{(BR)CBO}$	$I_C=100\mu A$	120		V
Breakdown Voltages	$V_{CEO(sus)}$	$I_C=10mA^*$	100		V
Breakdown Voltages	$V_{(BR)EBO}$	$I_E=100\mu A$	5		V
Collector Cut-Off Currents	$I_{CBO}$	$V_{CB}=100V$		100	nA
	$I_{CES}$	$V_{CES}=100V$		100	nA
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB}=4V$		100	nA
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=500mA, I_B=50mA$		0.3	V
		$I_C=1A, I_B=100mA$		0.6	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=1A, I_B=100mA$		1.15	V
Base-Emitter Turn On Voltage	$V_{BE(on)}$	$I_C=1A, V_{CE}=10V$		1.0	V
Static Forward Current Transfer Ratio	$h_{FE}$	$I_C=1mA, V_{CE}=10V^*$	100		
		$I_C=250mA, V_{CE}=10V^*$	100	300	
		$I_C=500mA, V_{CE}=10V^*$	60		
		$I_C=1A, V_{CE}=10V^*$	20		
Transition Frequency	$f_T$	$I_C=50mA, V_{CE}=10V, f=100MHz$	150		MHz
Collector-Base Breakdown Voltage	$C_{obo}$	$V_{CB}=10V, f=1MHz$		10	pF

\* Measured under pulsed conditions. Pulse width=300 $\mu s$ . Duty cycle  $\leq$  2%