

SOT-89 Plastic-Encapsulate Transistors

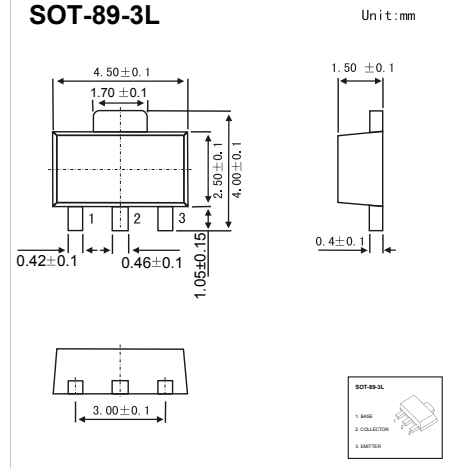
FEATURES

- Low Collector-Emitter Saturation Voltage
- High Breakdown Voltage
- TRANSISTOR (NPN)

MECHANICAL DATA

- Case style:SOT-89 -3L molded plastic
- Mounting position:any

SOT-89-3L



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	400	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current -Continuous	200	mA
I_{CM}	Collector Current -Pulsed	300	mA
P_C	Collector Power Dissipation	500	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	250	°C/W
T_J	Junction Temperature	150	°C
T_{stg}	Storage Temperature	-55~+150	°C

PACKAGE INFORMATION

Device	Package	Shipping
A44	SOT-89	1000/Tape&Reel

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	400			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}^*$	$I_C=1mA, I_B=0$	400			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB}=400V, I_E=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4V, I_C=0$			0.1	μA
DC current gain	$h_{FE(1)}^*$	$V_{CE}=10V, I_C=1mA$	40			
	$h_{FE(2)}^*$	$V_{CE}=10V, I_C=10mA$	50		200	
	$h_{FE(3)}^*$	$V_{CE}=10V, I_C=50mA$	45			
	$h_{FE(4)}^*$	$V_{CE}=10V, I_C=100mA$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}^*$	$I_C=1mA, I_B=0.1mA$			0.4	V
		$I_C=10mA, I_B=1mA$			0.5	V
		$I_C=50mA, I_B=5mA$			0.75	V
Base-emitter saturation voltage	$V_{BE(sat)}^*$	$I_C=10mA, I_B=1mA$			0.75	V
Collector output capacitance	C_{ob}	$V_{CB}=20V, I_E=0, f=1MHz$			7	pF
Emitter input capacitance	C_{ib}	$V_{BE}=0.5V, I_C=0, f=1MHz$			130	pF

*Pulse test: pulse width $\leq 300\mu s$, duty cycles $\leq 2.0\%$.

■ Marking

Marking	A44
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RATINGS AND CHARACTERISTIC CURVES

Typical Characteristics

