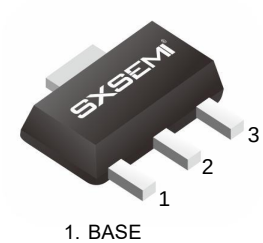
SOT-89-3L



1. BASE
2. COLLECTOR
3. EMITTER

MARKING:P1

FEATURES

I Power dissipation

MAXIMUM RATINGS (Ta=25℃ unless otherwise noted)

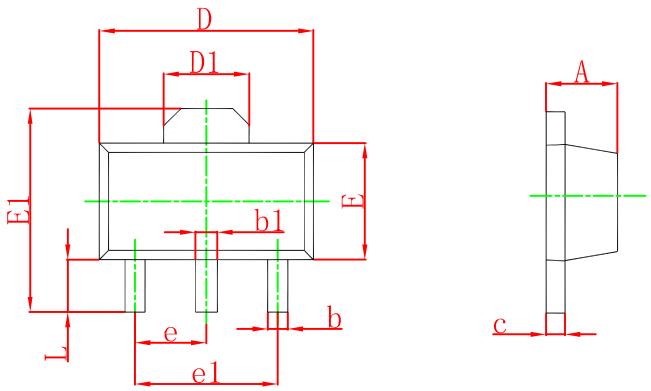
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-80	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current –Continuous	-1	A
P_C	Collector Power Dissipation	0.5	W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-100μA , I_E=0	-80		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$*	I_C= -10mA , I_B=0	-60		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-100μA, I_C=0	-5		V
Collector cut-off current	I_{CBO}	V_{CB}=-60 V , I_E=0		-0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-4 V , I_C=0		-0.1	μA
Collector- Emitter cut-off current	I_{CES}	V_{CES}=-60 V, I_E=0		-0.1	μA
DC current gain	h_{FE}*	V_{CE}=-5V, I_C= -1mA V_{CE}=-5V, I_C= -500mA V_{CE}=-5V, I_C= -1A V_{CE}=-5V, I_C= -2A	100 100 80 15	300	
Collector-emitter saturation voltage	$V_{CE(sat)}$ *	I_C=-500 mA, I_B= -50mA I_C=-1A, I_B= -100mA		-0.3 -0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$ *	I_C=-1A, I_B= -100mA		-1.2	V
Base-emitter voltage	V_{BE}*	V_{CE}=-5V, I_C= -1A		-1	V
Transition frequency	f_T	V_{CE}= -10V, I_C=- 50mA f =100MHz	150		MHz
Collector output capacitance	C_{ob}	V_{CB}=-10V, f=1MHz		10	pF

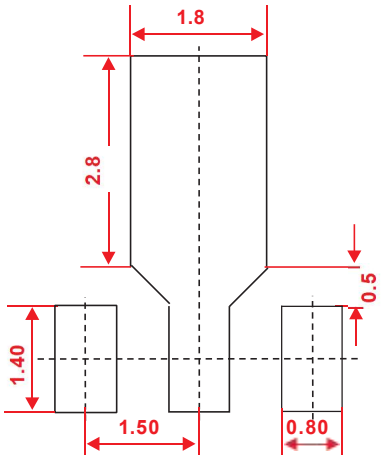
*Pulse width=300s. Duty cycle 2%

SOT-89-3L Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047

SOT-89-3L Suggested Pad Layout



Note:
1.Controlling dimension:In millimeters.
2.General tolerance:±0.05mm.
3.The pad layout is for reference purposes only.