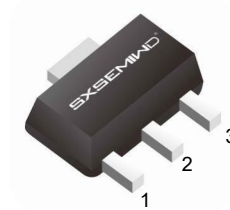


FEATURES

High-Speed Switching Applications
DC-DC Converter Applications
Strobe Applications

SOT-89-3L



1. BASE
2. COLLECTOR
3. EMITTER

MARKING :3E

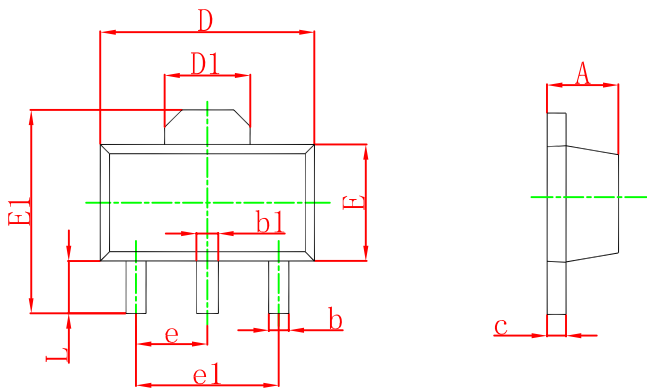
MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	20	V
V_{CEO}	Collector-Emitter Voltage	10	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current -Continuous	2	A
I_{CP}	Collector Current –Pulse	3.5	A
I_B	Base Current	0.2	A
P_C	Collector Power Dissipation	0.5	W
$R_{\theta JA}$	Thermal Resistance, junction to Ambient	250	°C/W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise spec2SC4672ified)

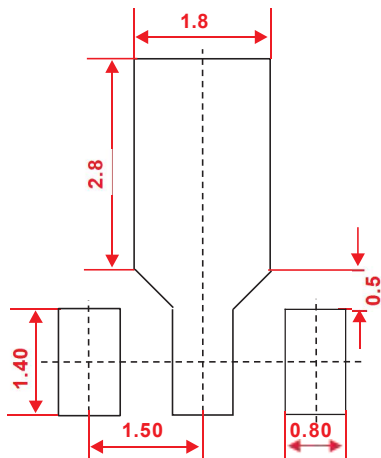
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=1mA, I_E=0$	20			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	10			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=1mA, I_C=0$	7			V
Collector cut-off current	I_{CBO}	$V_{CB}=20V, I_E=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=7V, I_C=0$			0.1	μA
DC current gain	h_{FE1}	$V_{CE}=2V, I_C=0.2A$	400		1000	
	h_{FE2}	$V_{CE}=2V, I_C=0.6A$	200			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=0.6A, I_B=12mA$			0.12	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=0.6A, I_B=12mA$			1.1	V
Rise time	t_r	See Figure 1 circuit diagram. $V_{CC}=6V, R_L=10\Omega,$ $I_{B1}=-I_{B2}=12mA$		60		ns
Storage time	t_s			215		ns
Fall time	t_f			25		ns

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: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.