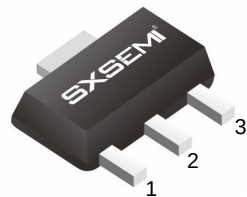


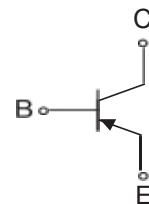
SOT-89-3L



1. BASE
2. COLLECTOR
3. EMITTER

MARKING: A554

Equivalent Circuit



FEATURES

- I Low Saturation Voltage
- I High Speed Switching

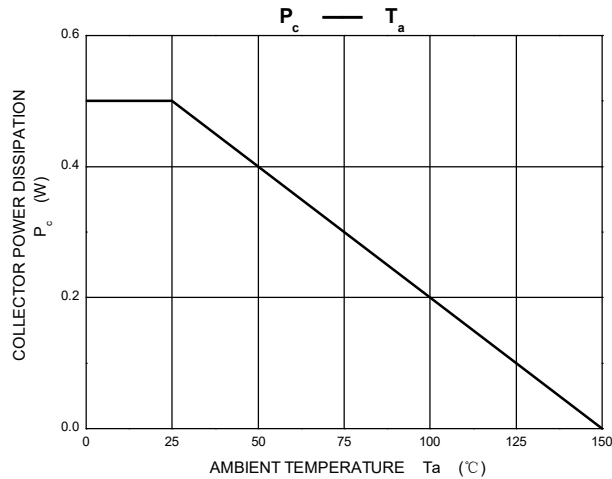
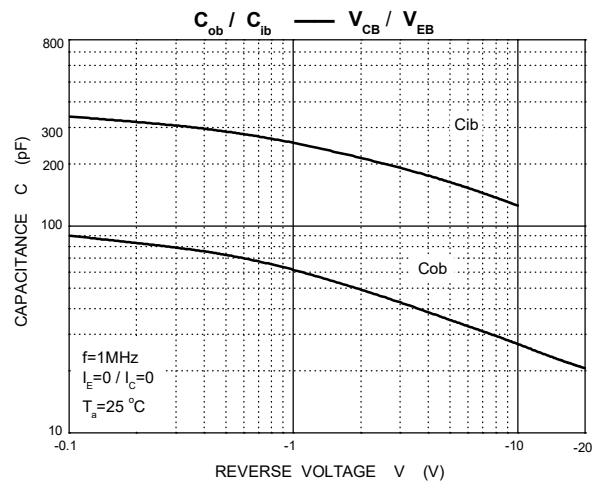
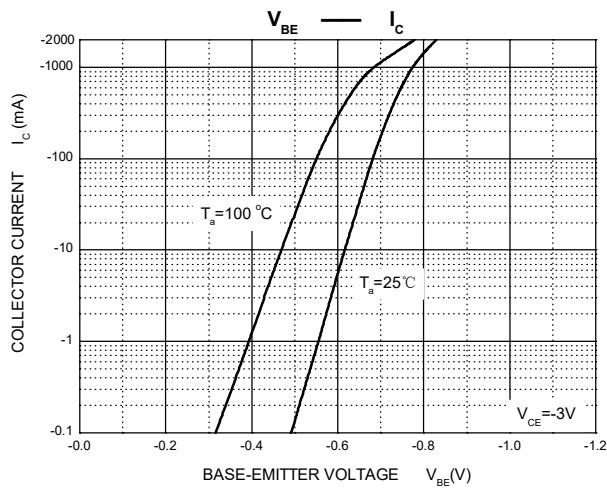
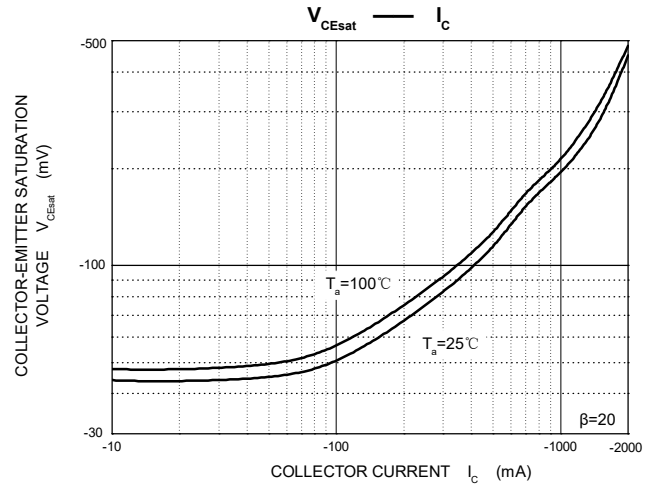
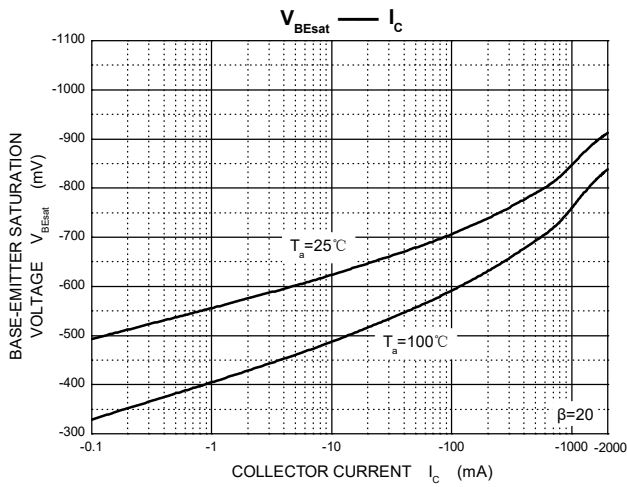
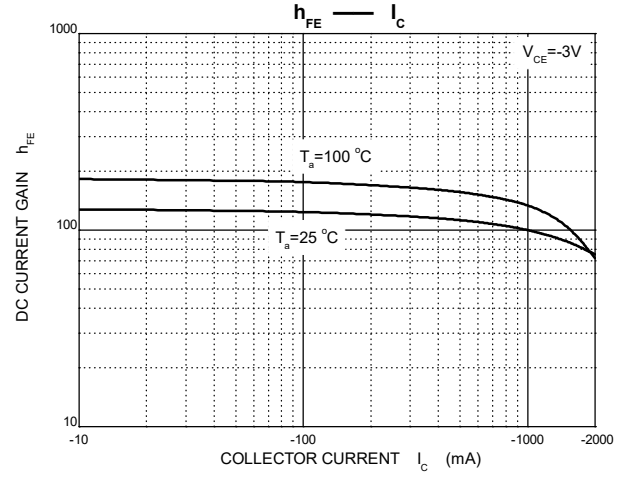
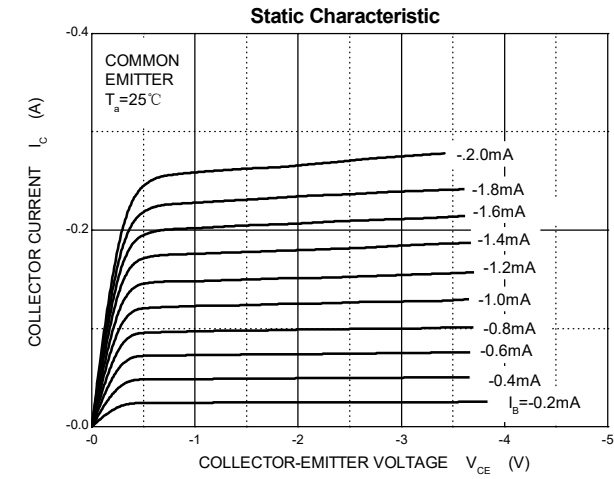
MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-100	V
V_{CEO}	Collector-Emitter Voltage	-100	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current	-2	A
P_C	Collector Power Dissipation	500	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	250	$^{\circ}\text{C}/\text{W}$
T_J, T_{STG}	Operation Junction and Storage Temperature Range	-55~+150	$^{\circ}\text{C}$

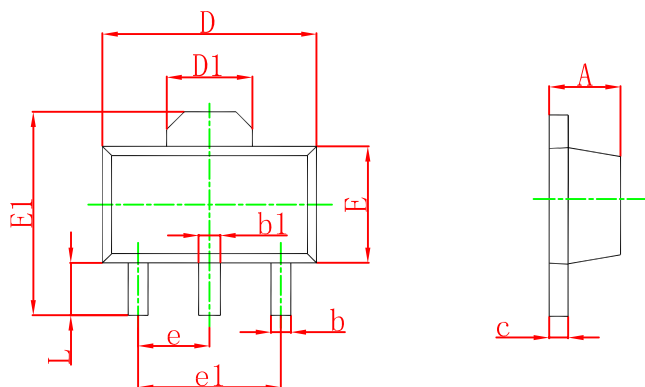
ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -0.1\text{mA}, I_E = 0$	-100			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, I_B = 0$	-100			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -0.1\text{mA}, I_C = 0$	-6			V
Collector cut-off current	I_{CBO}	$V_{CB} = -100\text{V}, I_E = 0$			-1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -4\text{V}, I_C = 0$			-1	μA
DC current gain	h_{FE}	$V_{CE} = -3\text{V}, I_C = -100\text{mA}$	120		270	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -0.5\text{A}, I_B = -25\text{mA}$			-0.2	V
		$I_C = -1\text{A}, I_B = -50\text{mA}$			-0.3	V
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$		32		pF
Transition frequency	f_T	$V_{CE} = -5\text{V}, I_C = -0.1\text{A}$	30			MHz

Typical Characteristics

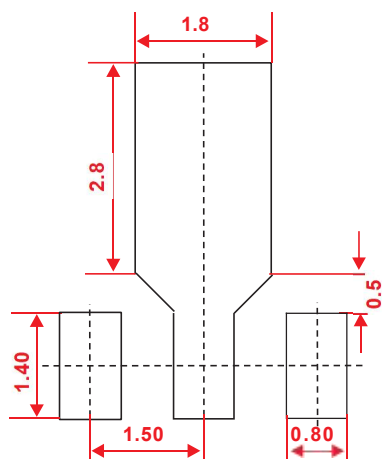


SOT-89-3L Package Outline Dimensions



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.