



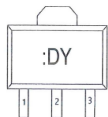
SOT-89-3L Plastic-Encapsulate Transistors

TRANSISTOR (PNP)

FEATURES

- High voltage
- High transition frequency
- Complementary to 2SC2881

MARKING

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

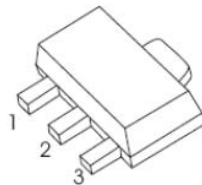
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-120	V
V_{CEO}	Collector-Emitter Voltage	-120	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_{C}	Collector Current -Continuous	-0.8	A
P_{C}	Collector Power Dissipation	0.5	W
$T_{\text{J}}, T_{\text{stg}}$	Operation Junction and Storage Temperature Range	-55~150	$^{\circ}\text{C}$
$R_{\theta\text{JA}}$	Thermal Resistance from Junction to Ambient	250	$^{\circ}\text{C}$

SOT-89-3L

1. BASE

2. COLLECTOR

3. EMITTER

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

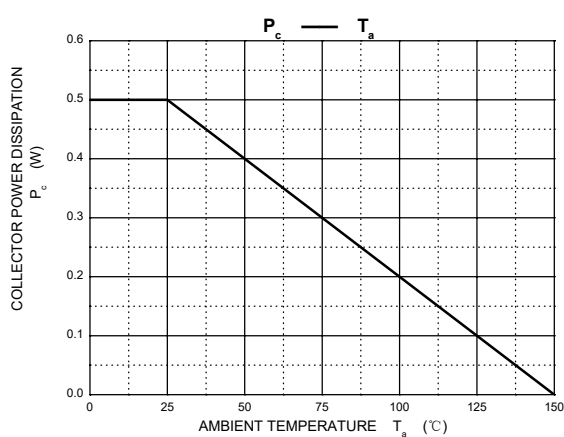
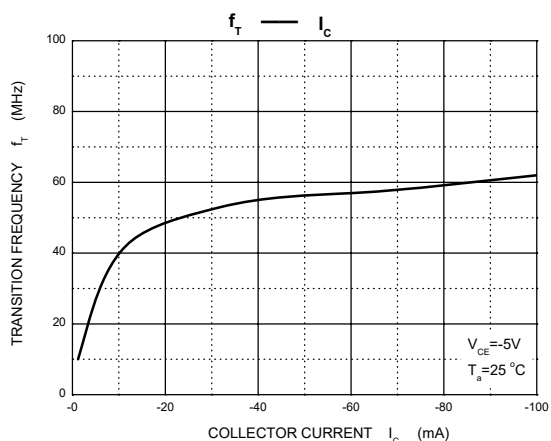
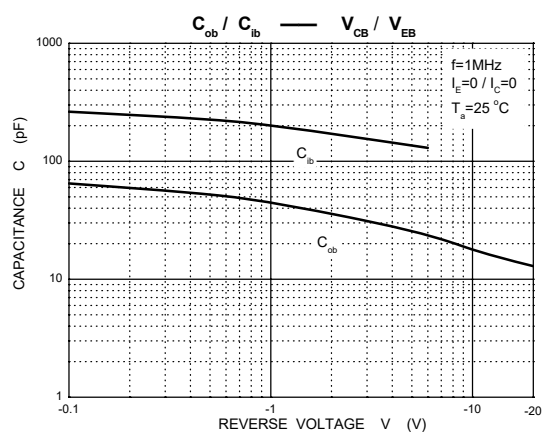
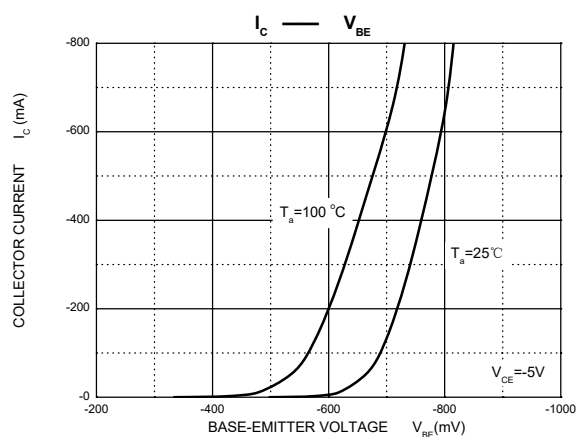
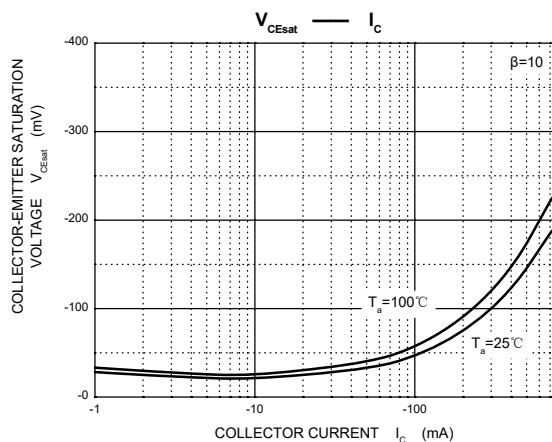
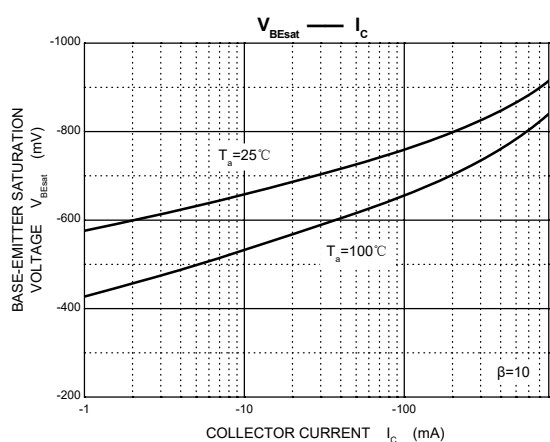
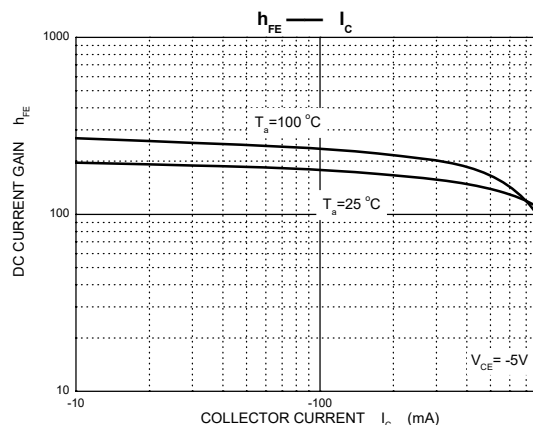
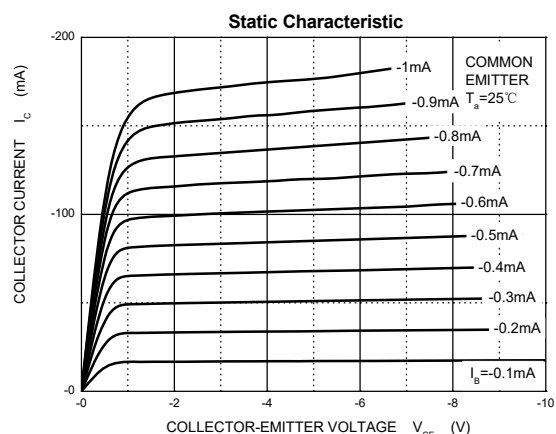
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(\text{BR})\text{CBO}}$	$I_{\text{C}}=-1\text{mA}, I_{\text{E}}=0$	-120			V
Collector-emitter breakdown voltage	$V_{(\text{BR})\text{CEO}}$	$I_{\text{C}}=-10\text{mA}, I_{\text{B}}=0$	-120			V
Emitter-base breakdown voltage	$V_{(\text{BR})\text{EBO}}$	$I_{\text{E}}=-1\text{mA}, I_{\text{C}}=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{\text{CB}}=-120\text{V}, I_{\text{E}}=0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{\text{EB}}=-5\text{V}, I_{\text{C}}=0$			-0.1	μA
DC current gain	h_{FE}	$V_{\text{CE}}=-5\text{V}, I_{\text{C}}=-100\text{mA}$	80		240	
Collector-emitter saturation voltage	$V_{\text{CE(sat)}}$	$I_{\text{C}}=-500\text{mA}, I_{\text{B}}=-50\text{mA}$			-1	V
Base-emitter voltage	V_{BE}	$V_{\text{CE}}=-5\text{V}, I_{\text{C}}=-500\text{mA}$			-1	V
Transition frequency	f_{T}	$V_{\text{CE}}=-5\text{V}, I_{\text{C}}=-100\text{mA}$		120		MHz
Collector output capacitance	C_{ob}	$V_{\text{CB}}=-10\text{V}, I_{\text{E}}=0, f=1\text{MHz}$			30	pF

CLASSIFICATION OF h_{FE}

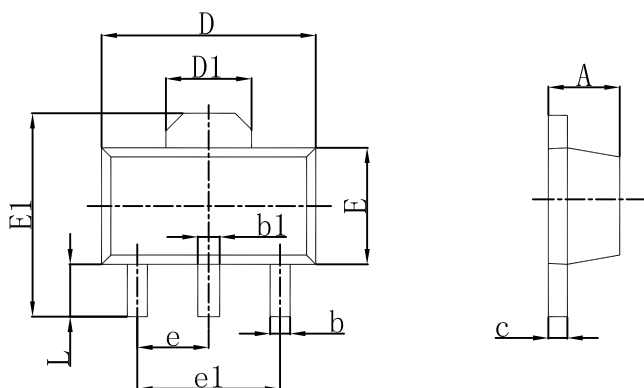
Rank	O	Y
Range	80-160	120-240



Typical Characteristics

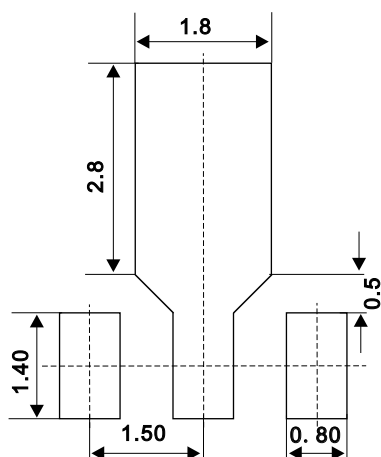


SOT-89-3L Package Outline Dimensions



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.