

NPN Transistors

General description

SOT-89-3L Plastic-Encapsulate Transistors

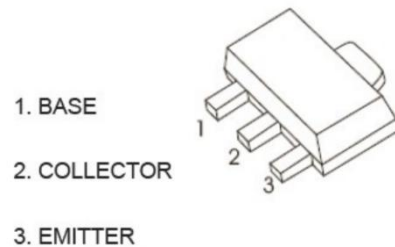
SOT-89-3L

FEATURES

- Low speed switching
- Power Dissipation of 500mW
- High Stability and High Reliability

MECHANICAL DATA

- SOT-89-3L Small Outline Plastic Package
- Epoxy UL: 94V-0
- Mounting Position: Any



Marking: D882

Maximum Ratings & Thermal Characteristics T_A = 25°C unless otherwise noted

Parameters	Symbol	Value	Unit
Collector-Base Voltage	V _{CB0}	40	V
Collector-Emitter Voltage	V _{CEO}	30	V
Emitter -Base Voltage	V _{EBO}	6	V
Collector Current-Continuous	I _C	3	A
Collector Power Dissipation	P _C	500	mW
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55-+150	°C
Thermal resistance From junction to ambient	R _{θJA}	250	°C/W

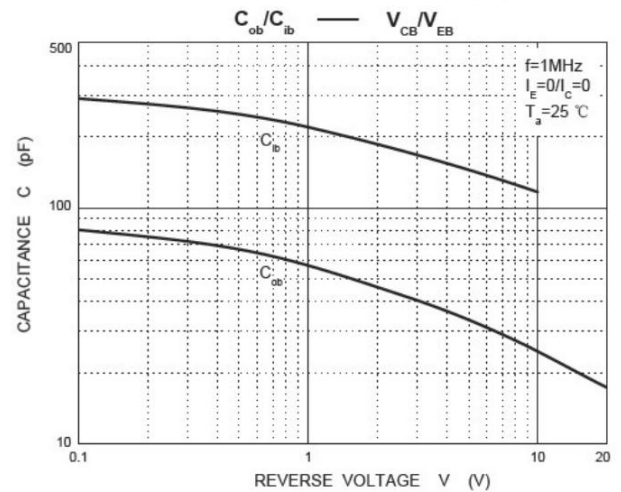
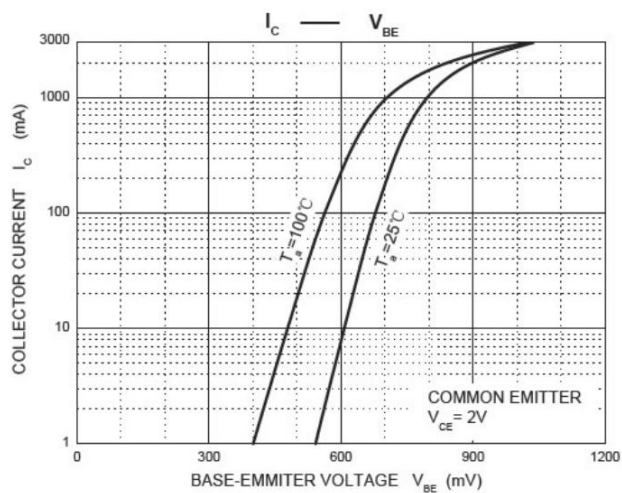
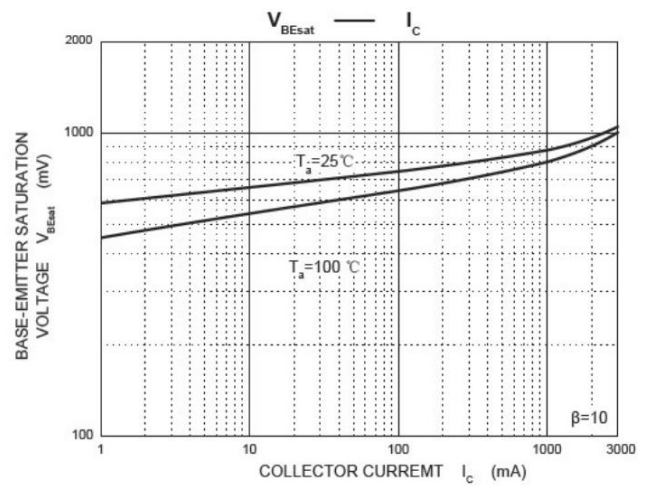
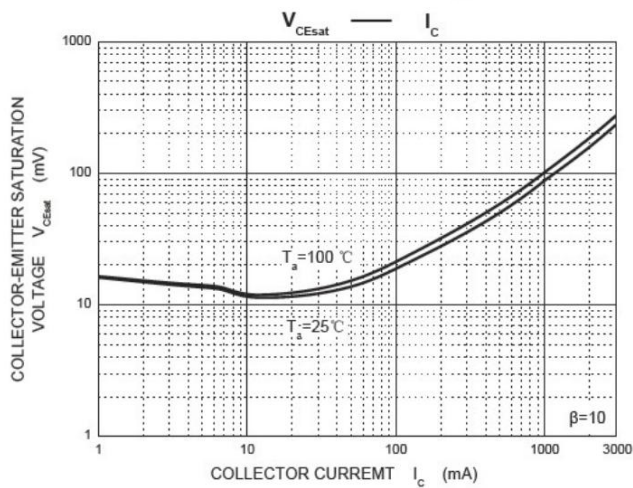
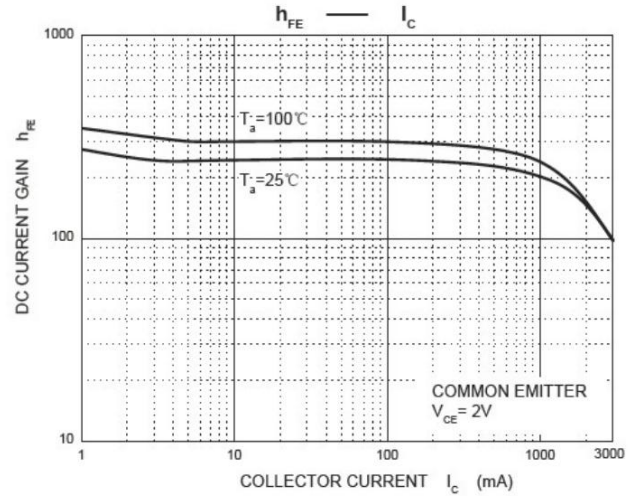
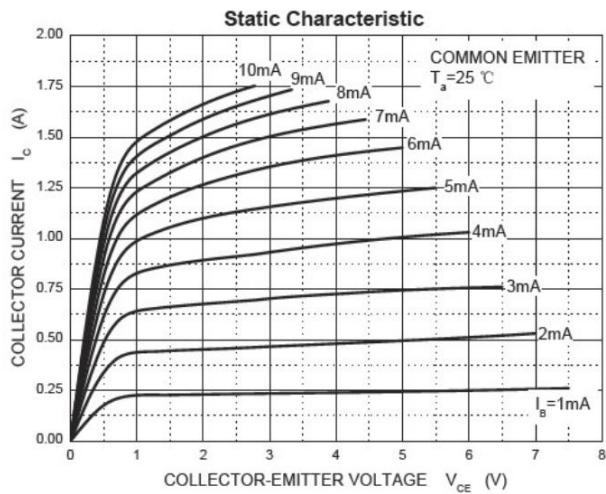
Electrical Characteristics T_A = 25°C unless otherwise noted

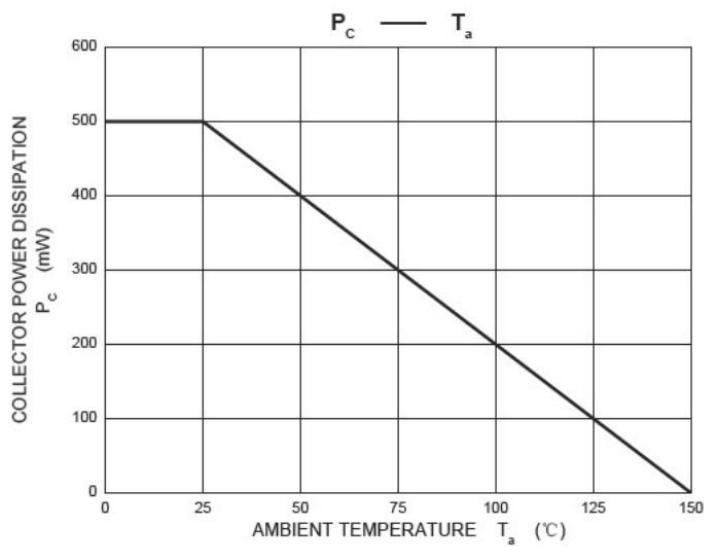
Parameter	Symbols	Test Condition	Limits		Unit
			Min	Max	
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =100uA, I _E =0	40		V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =10mA, I _B =0	30		V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =100uA, I _C =0	6		V
Collector cut-off current	I _{CEO}	V _{CE} =30V, I _B =0		10	uA
Collector cut-off current	I _{CBO}	V _{CB} =40V, I _E =0		1.0	uA
Emitter cut-off current	I _{EBO}	V _{EB} =6V, I _C =0		1.0	uA
DC current gain	h _{FE} (1)	V _{CE} =2V, I _C =1A	60	400	
	h _{FE} (2)	V _{CE} =2V, I _C =100mA	32		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =2A, I _B =200mA		0.50	V
Base -emitter saturation voltage	V _{BE(sat)}	I _C =2A, I _B =200mA		1.50	V
Transition frequency	f _T	V _{CE} =5V, I _C =100mA, f=10MHz	50		MHz

CLASSIFICATION OF h_{FE}(1)

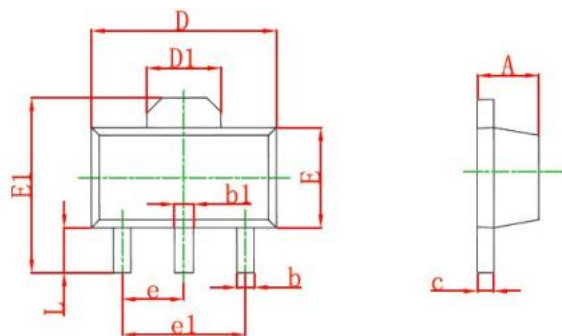
RANK	R	O	Y	GR
RANGE	60-120	100-200	160-320	200-400

Typical characteristics



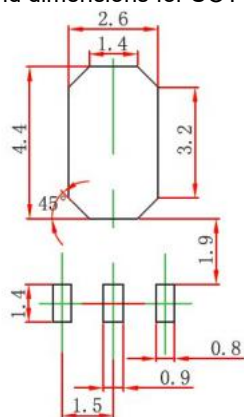


SOT-89-3L PACKAGE OUTLINE Plastic surface mounted package



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

Recommended land dimensions for SOT-89-3 diode. Electrode patterns for PCBs



Note:

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

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