

PNP Transistors

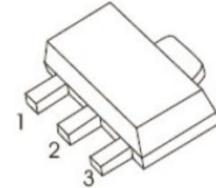
General description

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

1. BASE

2. COLLECTOR

3. Emitter

Marking: B772

Maximum Ratings & Thermal Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

Parameters	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	-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	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55-+150	$^\circ\text{C}$
Thermal resistance From junction to ambient	$R_{\theta JA}$	250	$^\circ\text{C}/\text{W}$

Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

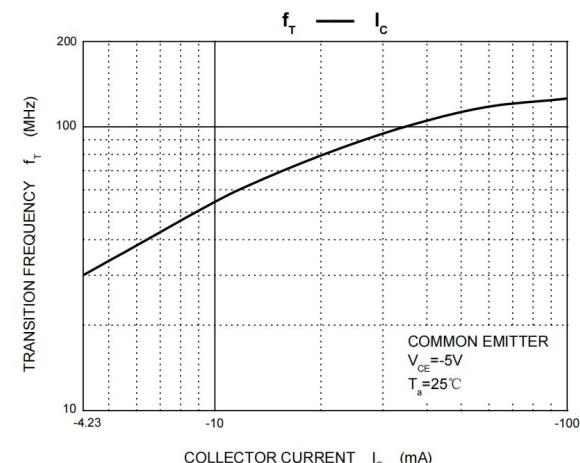
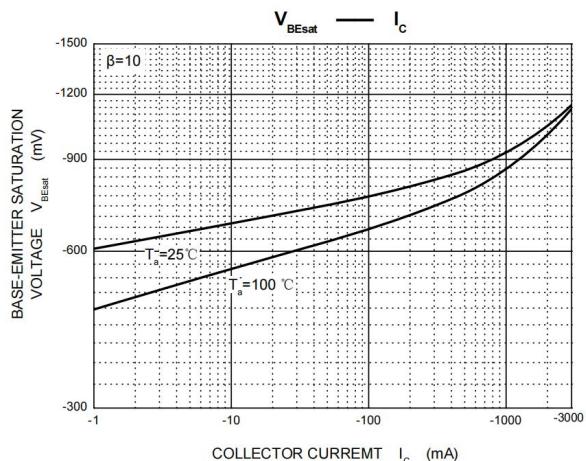
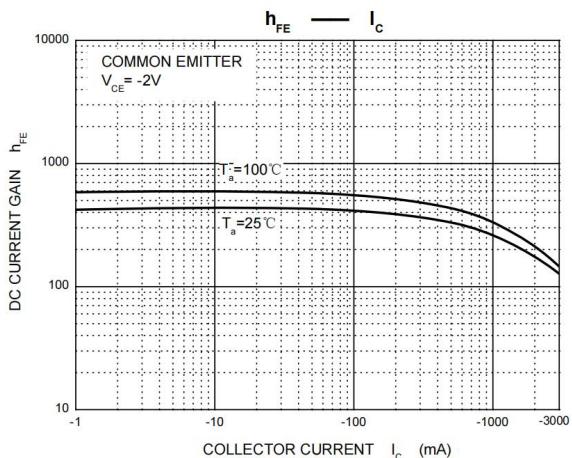
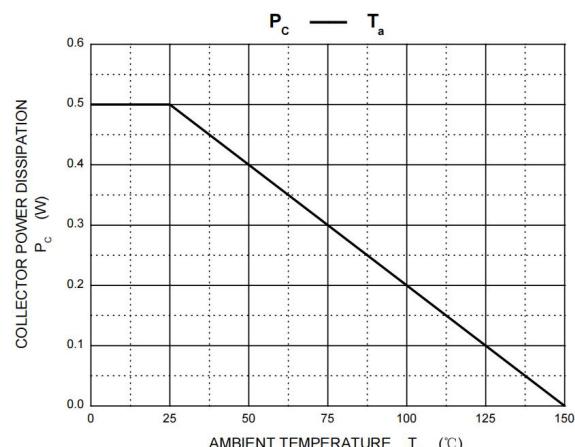
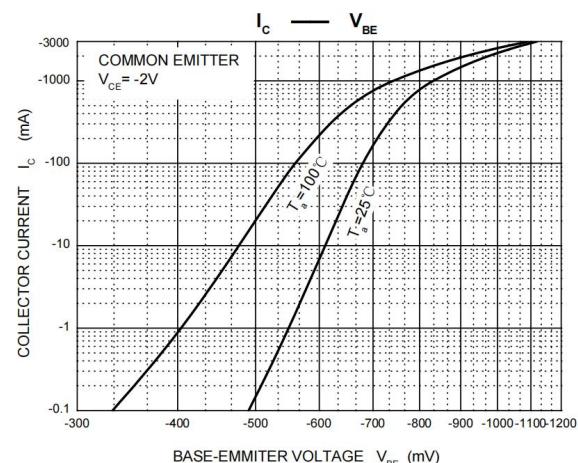
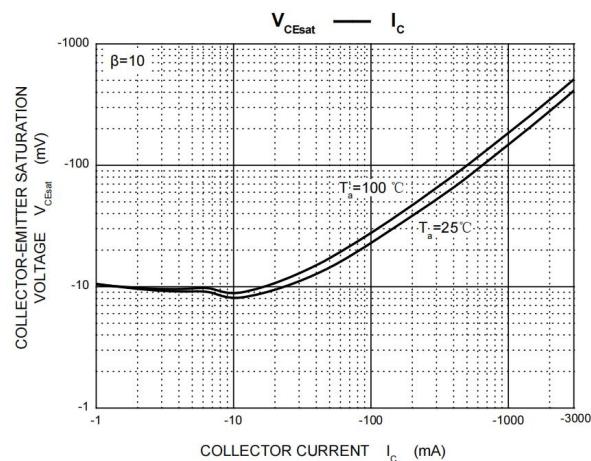
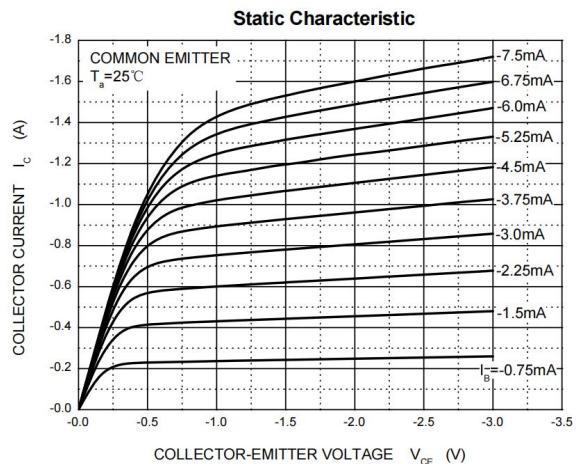
Parameter	Symbols	Test Condition	Limits		Unit
			Min	Max	
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu\text{A}, I_E=0$	-40		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-10\text{mA}, I_B=0$	-30		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu\text{A}, I_C=0$	-6		V
Collector cut-off current	I_{CEO}	$V_{CE}=-30\text{V}, I_B=0$		-10	μA
Collector cut-off current	I_{CBO}	$V_{CB}=-40\text{V}, I_E=0$		-1.0	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-6\text{V}, I_C=0$		-1.0	μA
DC current gain	$h_{FE}(1)$	$V_{CE}=-2\text{V}, I_C=-1\text{A}$	60	400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-2\text{A}, I_B=-200\text{mA}$		-0.50	V
Base -emitter saturation voltage	$V_{BE(sat)}$	$I_C=-2\text{A}, I_B=-200\text{mA}$		-1.50	V
Transition frequency	f_T	$V_{CE}=-5\text{V}, I_C=-100\text{mA}, f=10\text{MHz}$	50		MHz

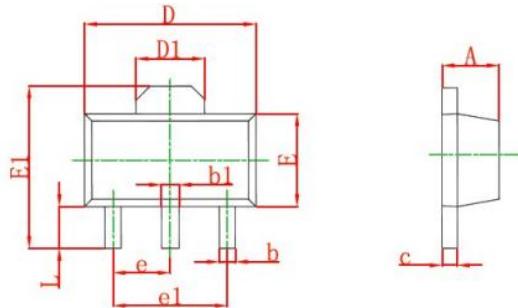
CLASSIFICATION OF $h_{FE}(1)$

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

B772

Typical characteristics

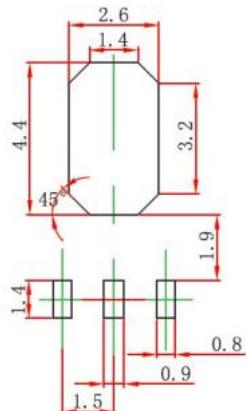


SOT-89-3L PACKAGE OUTLINE Plastic surface mounted package


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

Precautions: PCB Design

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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