

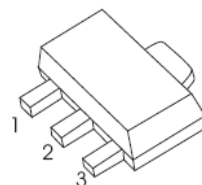
TRANSISTOR (NPN)

FEATURES

- High Current
- Low Voltage
- General Purpose Amplifier Applications

SOT-89-3L

1. BASE
2. COLLECTOR
3. EMITTER



MARKING:879

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

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	10	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current	3	A
P_C	Collector Power Dissipation	500	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	250	$^{\circ}\text{C/W}$
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-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	$V_{(BR)CBO}$	$I_C=10\mu\text{A}, I_E=0$	30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}, I_B=0$	10			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu\text{A}, I_C=0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB}=20\text{V}, I_E=0$			100	nA
Emitter cut-off current	I_{EBO}	$V_{EB}=4\text{V}, I_C=0$			100	nA
DC current gain	h_{FE}	$V_{CE}=2\text{V}, I_C=3\text{A}$	140			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=3\text{A}, I_B=60\text{mA}$			0.4	V
Base-emitter voltage	V_{BE}	$V_{CE}=1\text{V}, I_C=2\text{A}$			1.5	V
Transition frequency	f_T	$V_{CE}=10\text{V}, I_C=50\text{mA}$		200		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1\text{KHz}$		30		pF