



SOT-89 Plastic-Encapsulate Transistors

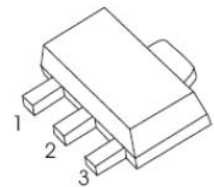
TRANSISTOR (PNP)

FEATURES

- Low collector-emitter saturation voltage $V_{CE(sat)}$
- Large peak collector current I_C
- **Pb-Free package is available**
RoHS product for packing code suffix "G"
Halogen free product for packing code suffix "H"

SOT-89

1. BASE
2. COLLECTOR
3. EMITTER



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	-20	V
V_{EBO}	Emitter-Base Voltage	-7	V
I_C	Collector Current -Continuous	-4	A
P_C	Collector Power Dissipation	0.5	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	$V_{(BR)CEO}$	$I_C=-1\text{mA}, I_B=0$	-20			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-10\mu\text{A}, I_C=0$	-7			V
Collector cut-off current	I_{CBO}	$V_{CB}=-30\text{V}, I_E=0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-7\text{V}, I_C=0$			-0.1	μA
DC current gain	h_{FE}	$V_{CE}=-2\text{V}, I_C=-2\text{A}$	120		315	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-3\text{A}, I_B=-100\text{mA}$			-1	V
Transition frequency	f_T	$V_{CE}=-6\text{V}, I_C=-50\text{mA}, f=200\text{MHz}$		120		MHz
Collector output capacitance	C_{ob}	$V_{CB}=-20\text{V}, I_E=0, f=1\text{MHz}$		40		pF

CLASSIFICATION OF h_{FE}

Rank	Q	R
Range	120-205	180-315
Marking	IQ	IR