

TRANSISTOR (NPN)

FEATURES

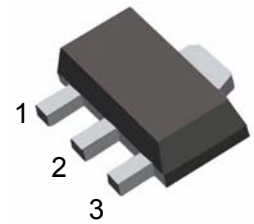
Low voltage

MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

Symbol	Parameter	Value	Units
V _{CB0}	Collector-Base Voltage	30	V
V _{CEO}	Collector-Emitter Voltage	10	V
V _{EBO}	Emitter-Base Voltage	6	V
I _C	Collector Current -Continuous	2	A
P _C	Collector Power Dissipation	0.5	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55-150	°C

SOT-89

- 1. BASE
- 2. COLLECTOR
- 3. EMITTER



ELECTRICAL CHARACTERISTICS (T_{amb}=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =1mA, I _E =0	30			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =10mA, I _B =0	10			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =1mA, I _C =0	6			V
Collector cut-off current	I _{CBO}	V _{CB} =30V, I _E =0			0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} =6V, I _C =0			0.1	μA
DC current gain	h _{FE(1)}	V _{CE} =1V, I _C =0.5A	140		600	
	h _{FE(2)}	V _{CE} =1V, I _C =2A	70			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =2A, I _B =50mA			0.5	V
Base-emitter voltage	V _{BE}	V _{CE} =1V, I _C =2A			1.5	V
Transition frequency	f _T	V _{CE} =1V, I _C =0.5A		150		MHz
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz		27		pF

CLASSIFICATION OF h_{FE(1)}

Rank	A	B	C	D
Range	140-240	200-330	300-450	420-600
Marking	SA	SB	SC	SD

Typical Characteristics

