

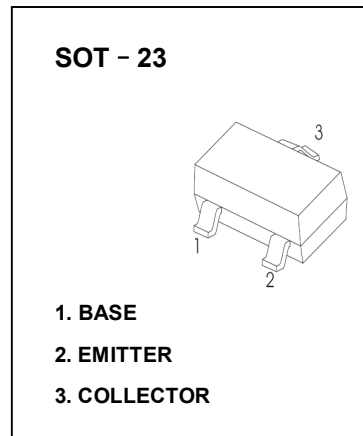
TRANSISTOR (NPN)

FEATURES

- High Power Gain

APPLICATIONS

- High Frequency Application
- HF,VHF Band Amplifier Application



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

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	35	V
V _{CEO}	Collector-Emitter Voltage	30	V
V _{EBO}	Emitter-Base Voltage	4	V
I _C	Collector Current	50	mA
P _C	Collector Power Dissipation	150	mW
R _{θJA}	Thermal Resistance From Junction To Ambient	833	°C/W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~+150	°C

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =100μA, I _E =0	35			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =100μA, I _B =0	30			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =100μA, I _C =0	4			V
Collector cut-off current	I _{CBO}	V _{CB} =30V, I _E =0			0.1	μA
Collector cut-off current	I _{CEO}	V _{CE} =25V, I _B =0			0.2	μA
Emitter cut-off current	I _{EBO}	V _{EB} =4V, I _C =0			1	μA
DC current gain	h _{FE}	V _{CE} =12V, I _C =2mA	40		240	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =10mA, I _B =1mA			0.4	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =10mA, I _B =1mA			1	V
Transition frequency	f _T	V _{CE} =10V, I _C =1mA	100			MHz

CLASSIFICATION OF h_{FE}

RANK	R	O	Y
RANGE	40 - 80	70 - 140	120 - 240
MARKING	RR	RO	RY