

TRANSISTOR(NPN)

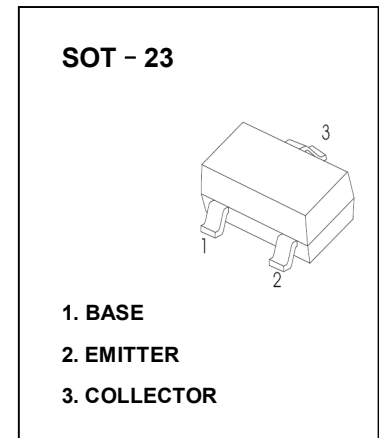
FEATURES

- High Current Gain

MARKING: 3SS

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

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	80	V
V _{CEO}	Collector-Emitter Voltage	80	V
V _{EBO}	Emitter-Base Voltage	12	V
I _C	Collector Current	500	mA
P _C	Collector Power Dissipation	200	mW
R _{θJA}	Thermal Resistance From Junction To Ambient	625	°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	80			V
Collector-emitter sustain voltage	V _{CEO(SUS)}	I _C =100μA, V _{BE} =0	80			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =10μA, I _C =0	12			V
Collector cut-off current	I _{CBO}	V _{CB} =60V, I _E =0			0.1	μA
Collector cut-off current	I _{CES}	V _{CE} =60V, V _{BE} =0			0.5	μA
Emitter cut-off current	I _{EBO}	V _{EB} =10V, I _C =0			0.1	μA
DC current gain	h _{FE(1)} *	V _{CE} =5V, I _C =10mA	10			K
	h _{FE(2)} *	V _{CE} =5V, I _C =100mA	10			K
Collector-emitter saturation voltage	V _{CE(sat)1} *	I _C =10mA, I _B =0.01mA			1.2	V
	V _{CE(sat)2} *	I _C =100mA, I _B =0.1mA			1.5	V
Base-emitter voltage	V _{BE} *	V _{CE} =5V, I _C =100mA			2	V
Collector output capacitance	C _{ob}	V _{CB} =1V, I _E =0, f=1MHz			8	pF
Transition frequency	f _T	V _{CE} =5V, I _C =10mA, f=100MHz	125			MHz

*Pulse test: pulse width ≤300μs, duty cycle ≤ 2.0%.