

TRANSISTOR (NPN)

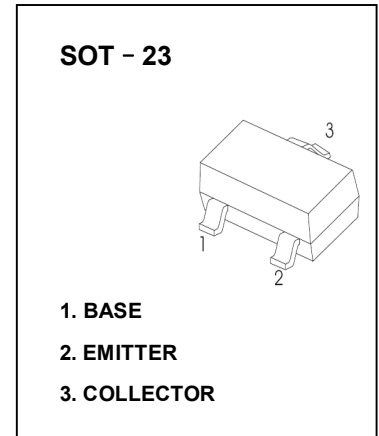
FEATURES

- Low Equivalent On-Resistance

MARKING: 449

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

Symbol	Parameter	Value	Unit
V _{CB0}	Collector-Base Voltage	50	V
V _{CEO}	Collector-Emitter Voltage	30	V
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current	1	A
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 =1mA, I _E =0	50			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =10mA, I _B =0	30			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =100μA, I _C =0	5			V
Collector cut-off current	I _{CBO}	V _{CB} =40V, I _E =0			0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} =4V, I _C =0			0.1	μA
DC current gain	h _{FE(1)} *	V _{CE} =2V, I _C =50mA	70			
	h _{FE(2)} *	V _{CE} =2V, I _C =500mA	100		300	
	h _{FE(3)} *	V _{CE} =2V, I _C =1A	80			
	h _{FE(4)} *	V _{CE} =2V, I _C =2A	40			
Collector-emitter saturation voltage	V _{CE(sat)1} *	I _C =1A, I _B =100mA			0.5	V
	V _{CE(sat)2} *	I _C =2A, I _B =200mA			1	V
Base-emitter saturation voltage	V _{BE(sat)} *	I _C =1A, I _B =100mA			1.25	V
Base-emitter voltage	V _{BE} *	V _{CE} =2V, I _C =1A			1	V
Transition frequency	f _T	V _{CE} =10V, I _C =50mA, f=100MHz	150			MHz
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz			15	pF

*Pulse test