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2N3119

NPN SILICON TRANSISTOR

JEDEC TO-39 CASE

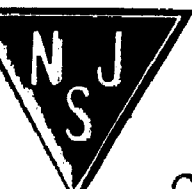
2N3119 type is a silicon NPN transistor manufactured by the epitaxial planar process designed for high voltage switching applications.

MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise noted)

	<u>SYMBOL</u>		<u>UNIT</u>
Collector-Base Voltage	V _{CB0}	100	V
Collector-Emitter Voltage ($V_{BE}=1.5V$)	V _{CEV}	100	V
Collector-Emitter Voltage	V _{CEO}	80	V
Emitter-Base Voltage	V _{EBO}	4.0	V
Collector Current	I _C	0.5	A
Power Dissipation	P _D	1.0	W
Power Dissipation ($T_C=25^\circ\text{C}$)	P _D	4.0	W
Operating and Storage Junction Temperature	T _J , T _{STG}	-65 TO +200	°C

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>MIN</u>	<u>MAX</u>	<u>UNIT</u>
I _{CB0}	V _{CB} =60V		50	nA
I _{CB0}	V _{CB} =60V, $T_A=150^\circ\text{C}$		50	μA
I _{EBO}	V _{BE} =3.0V		100	nA
BV _{CB0}	I _C =0.1mA	100		V
BV _{CEV}	I _C =0.1mA, V _{BE} =1.5V	100		V
BV _{CEO}	I _C =10mA	80		V
BV _{EBO}	I _E =0.1mA	4.0		V
V _{CE(SAT)}	I _C =100mA, I _B =10mA		0.5	V
V _{BE(SAT)}	I _C =100mA, I _B =10mA		1.1	V
h _{FE}	V _{CE} =10V, I _C =10mA	40	-	
h _{FE}	V _{CE} =10V, I _C =100mA	50	200	
h _{FE}	V _{CE} =10V, I _C =250mA	20	-	
f _T	V _{CE} =28V, I _C =25mA, f=50MHz	250		MHz
C _{ob}	V _{CB} =28V, I _C =0, f=1.0MHz		6.0	pF
t _{ON}	V _{CC} =28V, I _C =100mA, I _{B1} =10mA		40	ns
t _{OFF}	V _{CC} =28V, I _C =100mA, I _{B2} =10mA		700	ns



NJ Semi-Conductors reserves the right to change test conditions, parameters limits and package dimensions without notice information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

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