

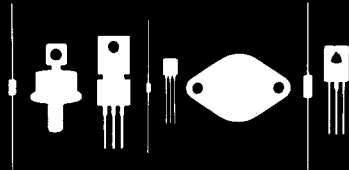
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145 Adams Avenue  
Hauppauge, New York 11788



2N3119

NPN SILICON TRANSISTOR

JEDEC TO-39 CASE

#### DESCRIPTION

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

#### MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise noted)

	SYMBOL		UNIT
Collector-Base Voltage	V <sub>CB0</sub>	100	V
Collector-Emitter Voltage (V <sub>BE</sub> =1.5V)	V <sub>CEV</sub>	100	V
Collector-Emitter Voltage	V <sub>CEO</sub>	80	V
Emitter-Base Voltage	V <sub>EBO</sub>	4.0	V
Collector Current	I <sub>C</sub>	0.5	A
Power Dissipation	P <sub>D</sub>	1.0	W
Power Dissipation (T <sub>C</sub> =25°C)	P <sub>D</sub>	4.0	W
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>STG</sub>	-65 TO +200	°C

#### ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
I <sub>CB0</sub>	V <sub>CB</sub> =60V		50	nA
I <sub>CB0</sub>	V <sub>CB</sub> =60V, T <sub>A</sub> =150°C		50	μA
I <sub>EBO</sub>	V <sub>BE</sub> =3.0V		100	nA
BV <sub>CB0</sub>	I <sub>C</sub> =0.1mA	100		V
BV <sub>CEV</sub>	I <sub>C</sub> =0.1mA, V <sub>BE</sub> =1.5V	100		V
BV <sub>CEO</sub>	I <sub>C</sub> =10mA	80		V
BV <sub>EBO</sub>	I <sub>E</sub> =0.1mA	4.0		V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> =10mA		0.5	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> =10mA		1.1	V
h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =10mA	40	-	
h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =100mA	50	200	
h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =250mA	20	-	
f <sub>T</sub>	V <sub>CE</sub> =28V, I <sub>C</sub> =25mA, f=50MHz	250		MHz
C <sub>ob</sub>	V <sub>CB</sub> =28V, I <sub>C</sub> =0, f=1.0MHz		6.0	pF
t <sub>ON</sub>	V <sub>CC</sub> =28V, I <sub>C</sub> =100mA, I <sub>B1</sub> =10mA		40	ns
t <sub>OFF</sub>	V <sub>CC</sub> =28V, I <sub>C</sub> =100mA, I <sub>B2</sub> =10mA		700	ns

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