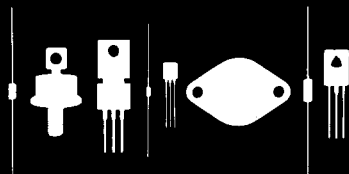


Central
Semiconductor Corp.
Central
Semiconductor Corp.
Central
Semiconductor Corp.
**Central™
Semiconductor Corp.**

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

	SYMBOL		UNIT
Collector-Base Voltage	V_{CB0}	100	V
Collector-Emitter Voltage ($V_{BE}=1.5\text{V}$)	V_{CEV}	100	V
Collector-Emitter Voltage	V_{CE0}	80	V
Emitter-Base Voltage	V_{EB0}	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	$^{\circ}\text{C}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
I_{CBO}	$V_{CB}=60\text{V}$		50	nA
I_{CBO}	$V_{CB}=60\text{V}, T_A=150^{\circ}\text{C}$		50	μA
I_{EBO}	$V_{BE}=3.0\text{V}$		100	nA
BV_{CBO}	$I_C=0.1\text{mA}$	100		V
BV_{CEV}	$I_C=0.1\text{mA}, V_{BE}=1.5\text{V}$	100		V
BV_{CE0}	$I_C=10\text{mA}$	80		V
BV_{EB0}	$I_E=0.1\text{mA}$	4.0		V
$V_{CE(SAT)}$	$I_C=100\text{mA}, I_B=10\text{mA}$		0.5	V
$V_{BE(SAT)}$	$I_C=100\text{mA}, I_B=10\text{mA}$		1.1	V
h_{FE}	$V_{CE}=10\text{V}, I_C=10\text{mA}$	40	-	
h_{FE}	$V_{CE}=10\text{V}, I_C=100\text{mA}$	50	200	
h_{FE}	$V_{CE}=10\text{V}, I_C=250\text{mA}$	20	-	
f_T	$V_{CE}=28\text{V}, I_C=25\text{mA}, f=50\text{MHz}$	250		MHz
C_{ob}	$V_{CB}=28\text{V}, I_C=0, f=1.0\text{MHz}$		6.0	pF
t_{ON}	$V_{CC}=28\text{V}, I_C=100\text{mA}, I_{B1}=10\text{mA}$		40	ns
t_{OFF}	$V_{CC}=28\text{V}, I_C=100\text{mA}, I_{B2}=10\text{mA}$		700	ns

Central™
Semiconductor Corp.

145 Adams Avenue
Hauppauge, NY 11788 USA
Tel: (631) 435-1110 • Fax: (631) 435-1824
www.centrasemi.com

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.
145 Adams Avenue
Hauppauge, NY 11788 USA
Main Tel: (631) 435-1110
Main Fax: (631) 435-1824
Support Team Fax: (631) 435-3388
www.centalsemi.com

Worldwide Field Representatives:
www.centalsemi.com/wwreps

Worldwide Distributors:
www.centalsemi.com/wwdistributors

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: www.centalsemi.com/terms