

# Central<sup>TM</sup> Semiconductor Corp.

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

Manufacturers of World Class Discrete Semiconductors

2N3668  
2N3669  
2N3670  
2N4103

SILICON CONTROLLED RECTIFIER  
16 AMPS  
220 THRU 800 VOLTS  
JEDEC TO-3 CASE

## DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N3668, 2N3669, 2N3670, 2N4103 types are hermetically sealed silicon SCR's designed for sensing circuit applications and control systems. Higher voltage devices and electrical selections are available on special order.

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

	SYMBOL	2N3668	2N3669	2N3670	2N4103	UNIT
Peak Repetitive Off-State Voltage	V <sub>RRM</sub>	100	200	400	600	V
Peak Repetitive Off-State Voltage	V <sub>DRM</sub>	200	400	600	800	V
RMS On-State Current (T <sub>C</sub> =90°C)	I <sub>T</sub> (RMS)			16		A
Peak One Cycle Surge (60Hz, T <sub>C</sub> =80°C)	I <sub>TSM</sub>			200		A
Peak Gate Current	I <sub>GM</sub>			4.0		A
Average Gate Power Dissipation	P <sub>G(AV)</sub>			0.5		W
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>STG</sub>		-40 TO +125			°C
Thermal Resistance	θ <sub>JC</sub>			1.7		°C/W

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
I <sub>RRM</sub>	V <sub>R</sub> =Rated V <sub>RRM</sub> , T <sub>C</sub> =100°C			1.0	mA
I <sub>DRM</sub>	V <sub>D</sub> =Rated V <sub>DRM</sub> , T <sub>C</sub> =100°C			2.0	mA
V <sub>TM</sub>	I <sub>T</sub> =25A			1.8	V
I <sub>GT</sub>	V <sub>D</sub> =7.0V	1.0		40	mA
V <sub>GT</sub>	V <sub>D</sub> =7.0V			2.0	V
I <sub>H</sub>	R <sub>G</sub> =1.0kΩ	0.5		50	mA
dv/dt	V <sub>D</sub> =.67 x V <sub>DRM</sub> , R <sub>G</sub> =1.0kΩ, T <sub>C</sub> =100°C	10	400		V/μs
t <sub>gd</sub>	I <sub>G</sub> =125mA, di <sub>G</sub> /dt=1.25A/μs			500	ns
t <sub>q</sub>	V <sub>D</sub> =.67 x V <sub>DRM</sub> , V <sub>R</sub> =35V, I <sub>T</sub> =10A, T <sub>C</sub> =90°C			50	μs

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### 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

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### DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2<sup>nd</sup> 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

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### 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](http://www.centalsemi.com)

**Worldwide Field Representatives:**  
[www.centalsemi.com/wwreps](http://www.centalsemi.com/wwreps)

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