

# 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

1N914  
1N4148

SILICON SWITCHING DIODE

JEDEC D0-35 CASE

## DESCRIPTION

The CENTRAL SEMICONDUCTOR 1N914, 1N4148 Silicon Planar Epitaxial Diode is characterized by its miniature size, ultra fast switching speed, low capacitance, low leakage, and high conductance. Accordingly, it is ideally suited for applications such as pulse applications, avalanche circuits, core drivers, and for any critical circuit requiring high conductance at power dissipation without sacrificing fast recovery capability. (Both devices have identical electrical and mechanical specifications.)

## MAXIMUM RATINGS ( $T_A=25^\circ\text{C}$ )

	SYMBOL		UNIT
Peak Repetitive Reverse Voltage	$V_{RRM}$	100	V
Peak Working Reverse Voltage	$V_{RWM}$	75	V
Average Forward Current	$I_O$	150	mA
Forward Steady-State Current	$I_F$	200	mA
Peak Forward Surge Current (1.0 $\mu\text{s}$ pulse)	$I_{FSM}$	2000	mA
Power Dissipation	$P_D$	500	mW
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
BVR	$I_R=1.0\text{mA}$	100		V
BVR	$I_R=100\mu\text{A}$	75		V
$I_R$	$V_R=20\text{V}$		25	nA
$V_F$	$I_F=10\text{mA}$		1.0	V
$C_T$	$V_R=0\text{V}$ , $f=1.0\text{MHz}$		4.0	pF
$t_{rr}$	$V_R=6.0\text{V}$ , $I_F=10\text{mA}$ , $I_{FR}=1.0\text{mA}$ , $R_L=100\Omega$		4.0	ns

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

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

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