

# 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

## CR5U-010 SERIES

ULTRA FAST RECOVERY RECTIFIER  
5.0 AMP, 100 THRU 1000 VOLTS

JEDEC DO-201AD CASE

### DESCRIPTION

The CENTRAL SEMICONDUCTOR CR5U-010 Series types are 5.0 Amp Silicon Ultra Fast Recovery Rectifiers manufactured using the epitaxial process designed for those applications requiring extremely fast recovery times.

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

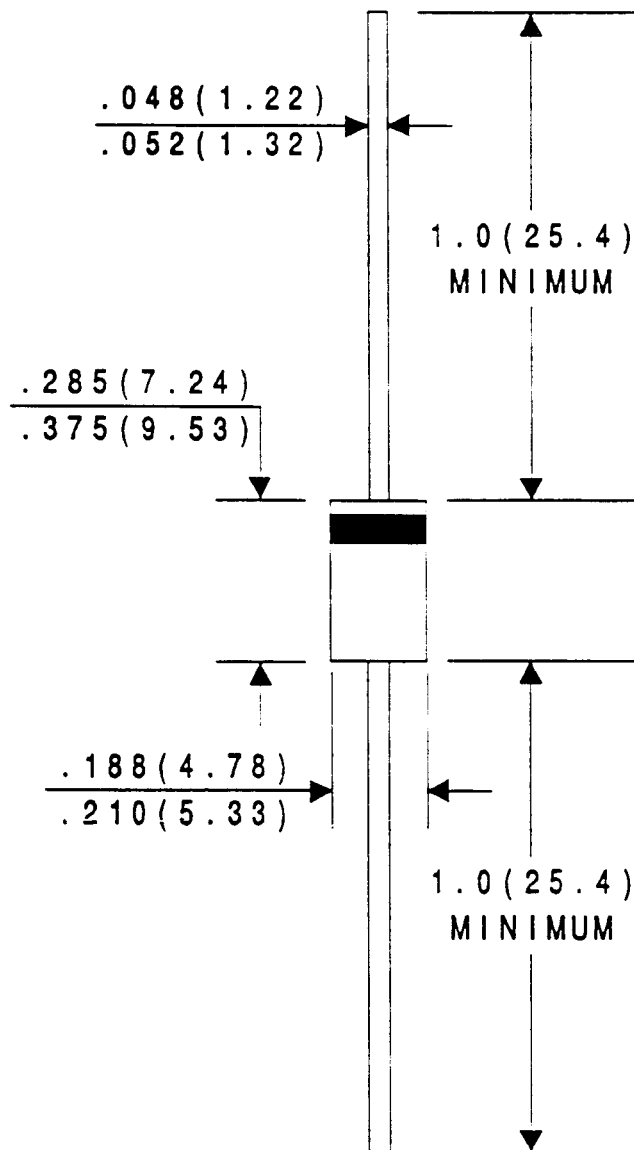
	SYMBOL	CR5U -010	CR5U -020	CR5U -040	CR5U -060	CR5U -080	CR5U -100	UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$	100	200	400	600	800	1000	V
DC Blocking Voltage	$V_R$	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	70	140	280	420	560	700	V
Average Forward Current ( $T_A=55^{\circ}\text{C}$ )	$I_O$				5.0			A
Peak Forward Surge Current	$I_{FSM}$				175			A
Operating and Storage								
Junction Temperature	$T_J, T_{stg}$			-65 to +150				$^{\circ}\text{C}$

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_R$	$V_R=\text{Rated } V_{RRM}$			10	$\mu\text{A}$
$I_R$	$V_R=\text{Rated } V_{RRM}, T_A=100^{\circ}\text{C}$			100	$\mu\text{A}$
$V_F$	$I_F=5.0\text{A}$ (CR5U-010 & CR5U-020)			1.0	V
$V_F$	$I_F=5.0\text{A}$ (CR5U-040)			1.3	V
$V_F$	$I_F=5.0\text{A}$ (CR5U-060 THRU CR5U-100)			1.7	V
$t_{rr}$	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$ (CR5U-010 THRU CR5U-040)			50	ns
$t_{rr}$	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$ (CR5U-060 THRU CR5U-100)			100	ns

(SEE REVERSE FOR MECHANICAL OUTLINE)

# JEDEC DO-201AD CASE - MECHANICAL OUTLINE



All Dimensions in Inches (mm).

## 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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### 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).

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

**Worldwide Distributors:**  
[www.centrasemi.com/wwdistributors](http://www.centrasemi.com/wwdistributors)

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



<https://www.centrasemi.com>

## Product End of Life Notification

<b>PDN ID:</b>	PDN01260
<b>Notification Date:</b>	6/27/23
<b>Last Buy Date:</b>	Stock Only
<b>Last Shipment Date</b>	Stock Only

Please be advised that Central Semiconductor must immediately discontinue the product(s) listed in the attached PDN notice. Orders can only be accepted for products with available inventory on hand.

You may have purchased one or more of the products listed. Please do not hesitate to contact your local Central Semiconductor sales representative with any questions or needs you may have. Central regrets any inconvenience this may cause.

Sincerely,

Central Semiconductor Corp.

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DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.



<https://www.centalsemi.com>

# Product End of Life Notification

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<b>Notification Date:</b>	6/27/23
<b>Last Buy Date:</b>	Stock Only
<b>Last Shipment Date</b>	Stock Only

Summary: The following rectifiers have been discontinued and are now classified as End of Life (EOL).

Although Central Semiconductor makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by other manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's ongoing Product Portfolio Management. Any replacement products are noted below. The effective date for placing last purchase orders will be six (6) months from the date of this notice and twelve (12) months from the notice date for final shipments, and minimum order quantities may apply. The last purchase and shipment dates may be extended if inventory is available.

**\* All Plating types (PBFREE, TIN/LEAD) for each item listed are included in this notice.**

<b>Central Part Number</b>	<b>Suggested Replacement</b>
CR16UD-08FP	N/A
CR5U-040 BK	N/A
CR5U-040 TR	N/A
CR5U-060 BK	N/A
CR5U-080 BK	N/A
1N5402 BK	N/A
1N5402 TR	N/A

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. If you would like assistance, please visit <https://my.centalsemi.com/submit-inquiry?type=ER> to submit an online inquiry.

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