

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

Manufacturers of World Class Discrete Semiconductors

**CR3U-010 SERIES** 

ULTRA FAST RECOVERY RECTIFIER 3.0 AMP, 100 THRU 1000 VOLTS

JEDEC DO-201AD CASE

## **DESCRIPTION**

The CENTRAL SEMICONDUCTOR CR3U-010 Series types are 3.0 Amp Silicon Ultra Fast Recovery Rectifiers manufactured using the epitaxial process designed for those applications requiring extremely fast recovery times.

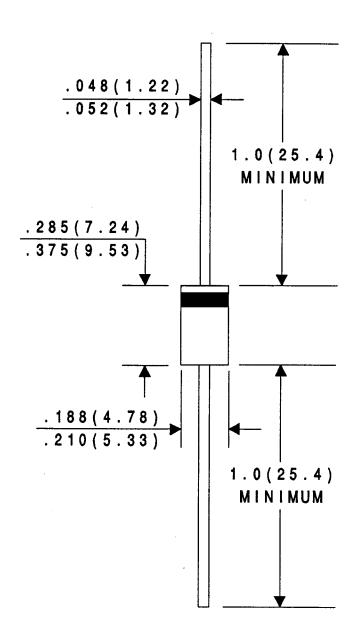
MAXIMUM RATINGS (TA=25°C unless otherwise noted)

	SYMBOL	CR3U -010	CR3U -020	CR3U -040	CR3U 060	CR3U -080	CR3U 100	<u>UNITS</u>
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 <sub>R(RMS)</sub>	70	140	280	420	560	700	V
Average Forward Current (T <sub>A</sub> =55°C)	lo	3.0						
Peak Forward Surge Current	<sup>I</sup> FSM	150						
Operating and Storage								
Junction Temperature	$T_{J}, T_{stg}$	-65 to +150						°C

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

SYMBOL	TEST CONDITIONS	MIN	<u>TYP</u>	MAX	UNITS
IR	V <sub>R</sub> =Rated V <sub>RRM</sub>			10	μА
l <sub>R</sub>	V <sub>R</sub> =Rated V <sub>RRM,</sub> T <sub>A</sub> =100°C			100	μА
VF	I <sub>F</sub> =3.0A (CR3U-010 & CR3U-020)			1.0	V
$V_{F}$	I <sub>F</sub> =3.0A (CR3U-040)			1.3	V
٧ <sub>F</sub>	I <sub>F</sub> =3.0A (CR3U-060 THRU CR3U-100)			1.7	V
t <sub>rr</sub>	$I_F$ =0.5A, $I_R$ =1.0A, $I_{\Pi}$ =0.25A (CR3U-010 THRU CR3U-040)			50	ns
t <sub>rr</sub>	$I_F$ =0.5A, $I_R$ =1.0A, $I_{\Pi}$ =0.25A (CR3U-060 THRU CR3U-100)			75	ns

# JEDEC DO-201AD CASE - MECHANICAL OUTLINE



All Dimensions in Inches (mm).

Central Tales

### **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 guick 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

#### 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**

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Central Semiconductor: CR3U-020 TR TIN/LEAD