

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

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

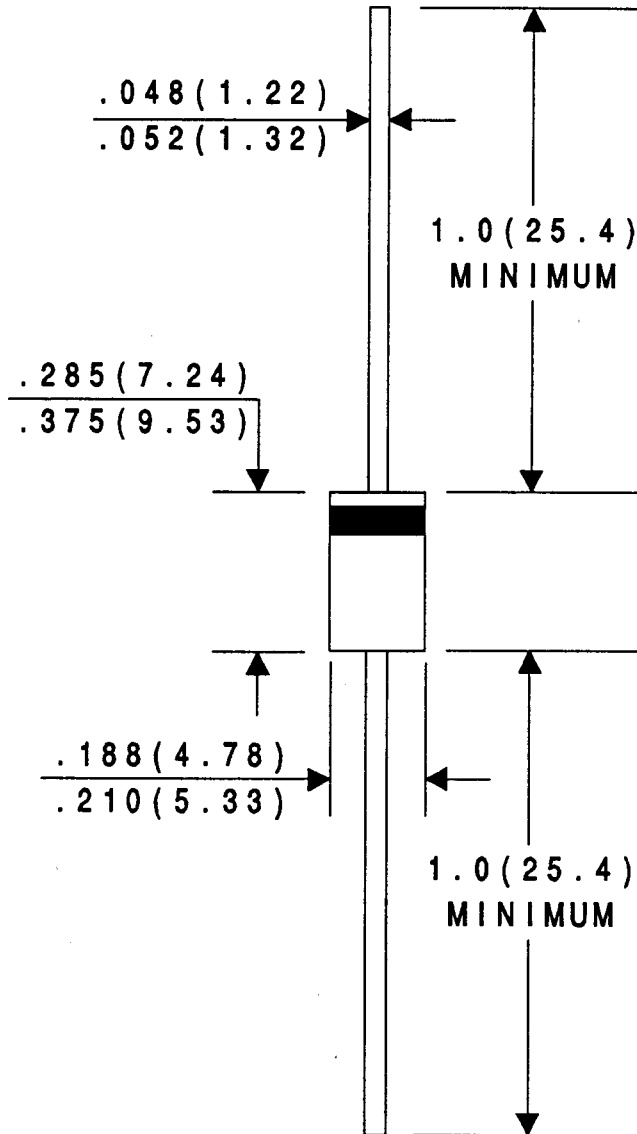
	<u>SYMBOL</u>	<u>CR3U -010</u>	<u>CR3U -020</u>	<u>CR3U -040</u>	<u>CR3U -060</u>	<u>CR3U -080</u>	<u>CR3U -100</u>	<u>UNITS</u>
Peak Repetitive Reverse Voltage	$V_{RRM}$	100	200	400	600	800	1000	V
DC Blocking Voltage	$V_R$	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	70	140	280	420	560	700	V
Average Forward Current ( $T_A=55^{\circ}\text{C}$ )	$I_O$				3.0			A
Peak Forward Surge Current	$I_{FSM}$				150			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)

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>MIN</u>	<u>TYP</u>	<u>MAX</u>	<u>UNITS</u>
$I_R$	$V_R=\text{Rated } V_{RRM}$			10	$\mu\text{A}$
$I_R$	$V_R=\text{Rated } V_{RRM}, T_A=100^{\circ}\text{C}$			100	$\mu\text{A}$
$V_F$	$I_F=3.0\text{A}$ (CR3U-010 & CR3U-020)			1.0	V
$V_F$	$I_F=3.0\text{A}$ (CR3U-040)			1.3	V
$V_F$	$I_F=3.0\text{A}$ (CR3U-060 THRU CR3U-100)			1.7	V
$t_{rr}$	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$ (CR3U-010 THRU CR3U-040)			50	ns
$t_{rr}$	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$ (CR3U-060 THRU CR3U-100)			75	ns

(SEE REVERSE FOR MECHANICAL OUTLINE)

# JEDEC DO-201AD CASE - MECHANICAL OUTLINE



All Dimensions in Inches (mm).