

# 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<sub>A</sub>=25°C unless otherwise noted)

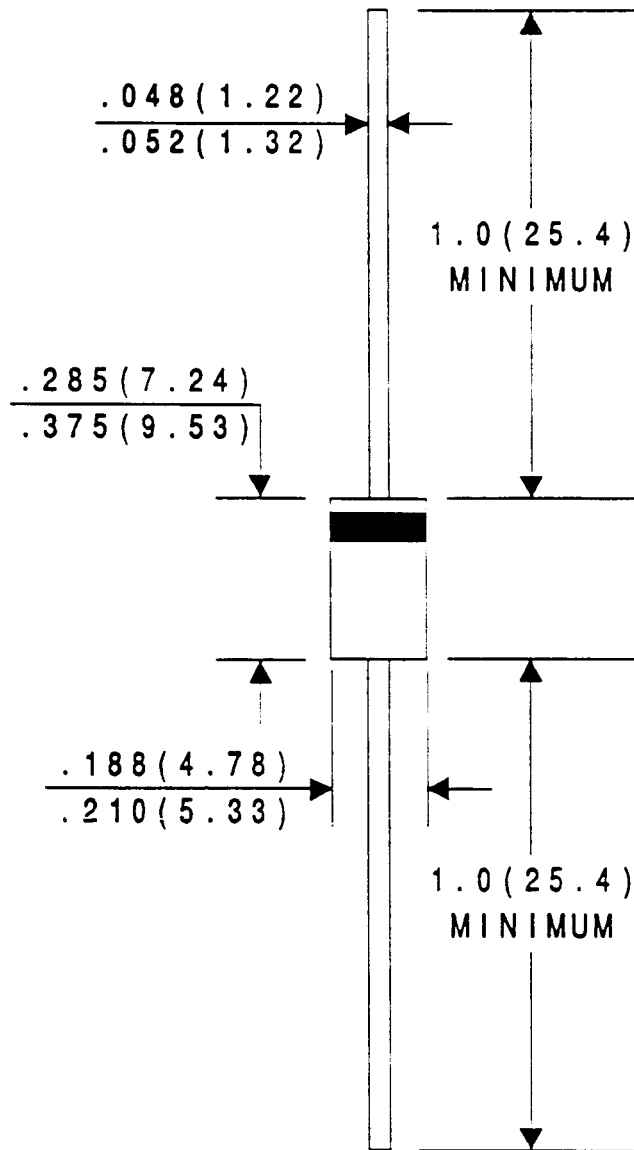
	SYMBOL	CR5U -010	CR5U -020	CR5U -040	CR5U -060	CR5U -080	CR5U -100	UNITS
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	100	200	400	600	800	1000	V
DC Blocking Voltage	V <sub>R</sub>	100	200	400	600	800	1000	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	70	140	280	420	560	700	V
Average Forward Current (T <sub>A</sub> =55°C)	I <sub>O</sub>				5.0			A
Peak Forward Surge Current	I <sub>FSM</sub>				175			A
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>				-65 to +150			°C

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I <sub>R</sub>	V <sub>R</sub> =Rated V <sub>RRM</sub>			10	μA
I <sub>R</sub>	V <sub>R</sub> =Rated V <sub>RRM</sub> , T <sub>A</sub> =100°C			100	μA
V <sub>F</sub>	I <sub>F</sub> =5.0A (CR5U-010 & CR5U-020)			1.0	V
V <sub>F</sub>	I <sub>F</sub> =5.0A (CR5U-040)			1.3	V
V <sub>F</sub>	I <sub>F</sub> =5.0A (CR5U-060 THRU CR5U-100)			1.7	V
t <sub>rr</sub>	I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>rr</sub> =0.25A (CR5U-010 THRU CR5U-040)			50	ns
t <sub>rr</sub>	I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>rr</sub> =0.25A (CR5U-060 THRU CR5U-100)			100	ns

(SEE REVERSE FOR MECHANICAL OUTLINE)

JEDEC DO-201AD CASE - MECHANICAL OUTLINE



All Dimensions in Inches (mm).