

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

CR3-005 SERIES

GENERAL PURPOSE RECTIFIER
3.0 AMP, 50 THRU 1200 VOLTS

JEDEC DO-201AD CASE

FEATURES:

- o 3.0 Amps at 100°C
- o Compression Molded Epoxy
- o Superior Solvent Resistance
- o 300 Amp Surge Current
- o Reliable Internal Construction
- o Extensive Temperature Range

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CR3-005 series axial lead epoxy silicon general purpose rectifiers are high quality, well-constructed, highly reliable components designed for use in all types of commercial, industrial, entertainment, computer, and automotive applications. Because of its superior electrical characteristics, this rectifier family is used as a universal replacement for many other rectifiers.

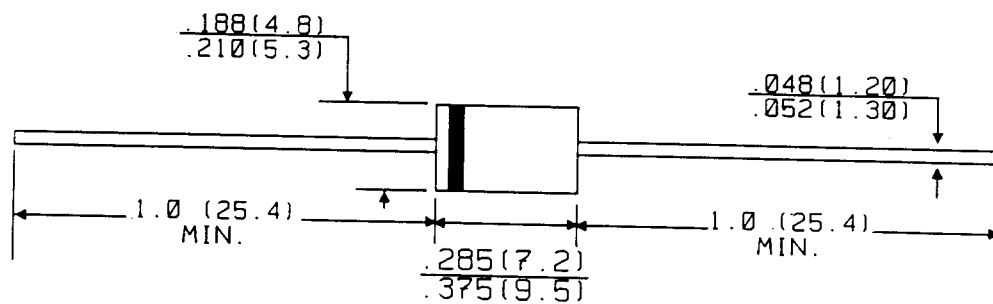
MAXIMUM RATINGS: ($T_A = 25^\circ\text{C}$)

	SYMBOL	CR3-005	CR3-010	CR3-020	CR3-040	CR3-060	CR3-080	CR3-100	CR3-120	UNITS
Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	1200	V
DC Blocking Voltage	V_R	50	100	200	400	600	800	1000	1200	V
RMS Voltage	V_{RMS}	35	75	140	280	420	560	700	840	V
Average Forward Current ($T_A = 100^\circ\text{C}$)	I_O					3.0				A
Peak Forward Surge Current (8.3ms single half sine-wave on rated load)	I_{FSM}					300				A
Operating and Storage										
Junction Temperature	T_J, T_{stg}				-65 to +175					$^\circ\text{C}$
Thermal Resistance	θ_{JA}					28 TYP.				$^\circ\text{C/W}$

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	μA
I_R	$V_R = \text{Rated } V_{RRM}, T_A = 100^\circ\text{C}$			100	μA
V_F	$I_F = 3.0\text{A}$			1.1	V
C_J	$V_R = 4.0\text{V}, f = 1\text{ MHz (CR3-005 TO CR3-040)}$		50		pF
C_J	$V_R = 4.0\text{V}, f = 1\text{ MHz (CR3-060 TO CR3-120)}$		25		pF

(over)



All Dimensions in inches(mm)

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