

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

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Manufacturers of World Class Discrete Semiconductors

CR2F-010 SERIES

FAST RECOVERY RECTIFIER  
2.0 AMP, 100 THRU 1200 VOLTS

JEDEC DO-15 CASE

## DESCRIPTION:

The CENTRAL SEMICONDUCTOR CR2F-010 series types are Axial Lead Epoxy Silicon Rectifiers designed for DC Power Supply and Inverter applications where fast recovery times are needed.

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

	SYMBOL	CR2F <u>-010</u>	CR2F <u>-020</u>	CR2F <u>-040</u>	CR2F <u>-060</u>	CR2F <u>-080</u>	CR2F <u>-100</u>	CR2F <u>-120</u>	UNITS
Peak Reverse Voltage	$V_{RRM}$	100	200	400	600	800	1000	1200	V
DC Blocking Voltage	$V_R$	100	200	400	600	800	1000	1200	V
RMS Voltage	$V_{RMS}$	75	140	280	420	560	700	840	V
Average Forward Current ( $T_A = 50^\circ\text{C}$ )	$I_O$				2.0				A
Peak Forward Surge Current ( $T_J = 150^\circ\text{C}$ ) (8.3ms single half sine-wave on rated load)	$I_{FSM}$				50				A
Storage Temperature	$T_{stg}$				-65 to +175				$^\circ\text{C}$
Junction Temperature	$T_J$				-65 to +150				$^\circ\text{C}$
Thermal Resistance	$\theta_{JA}$				50 TYP.				$^\circ\text{C/W}$

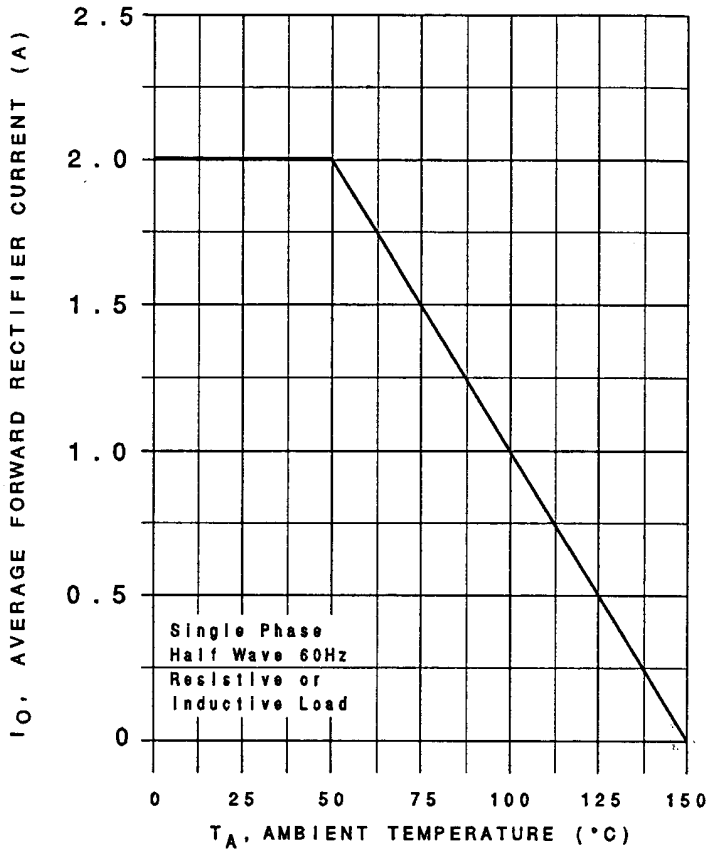
ELECTRICAL CHARACTERISTICS: ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_R$	$V_R = \text{Rated } V_{RRM}$			5.0	$\mu\text{A}$
$I_R$	$V_R = \text{Rated } V_{RRM}, T_A = 100^\circ\text{C}$			100	$\mu\text{A}$
$V_F$	$I_F = 2.0\text{A}$			1.3	V
$C_J$	$V_R = 4.0\text{V}, f = 1.0\text{ MHz (CR2F-010 TO CR2F-040)}$		20		pF
$C_J$	$V_R = 4.0\text{V}, f = 1.0\text{ MHz (CR2F-060 TO CR2F-120)}$		10		pF
$t_{rr}$	$I_F = 0.5\text{A}, I_R = 1.0\text{A}, \text{Recovery to } 0.25\text{A (CR2F-010 TO CR2F-040)}$			150	ns
$t_{rr}$	$I_F = 0.5\text{A}, I_R = 1.0\text{A}, \text{Recovery to } 0.25\text{A (CR2F-060)}$			250	ns
$t_{rr}$	$I_F = 0.5\text{A}, I_R = 1.0\text{A}, \text{Recovery to } 0.25\text{A (CR2F-080 TO CR2F-120)}$			500	ns

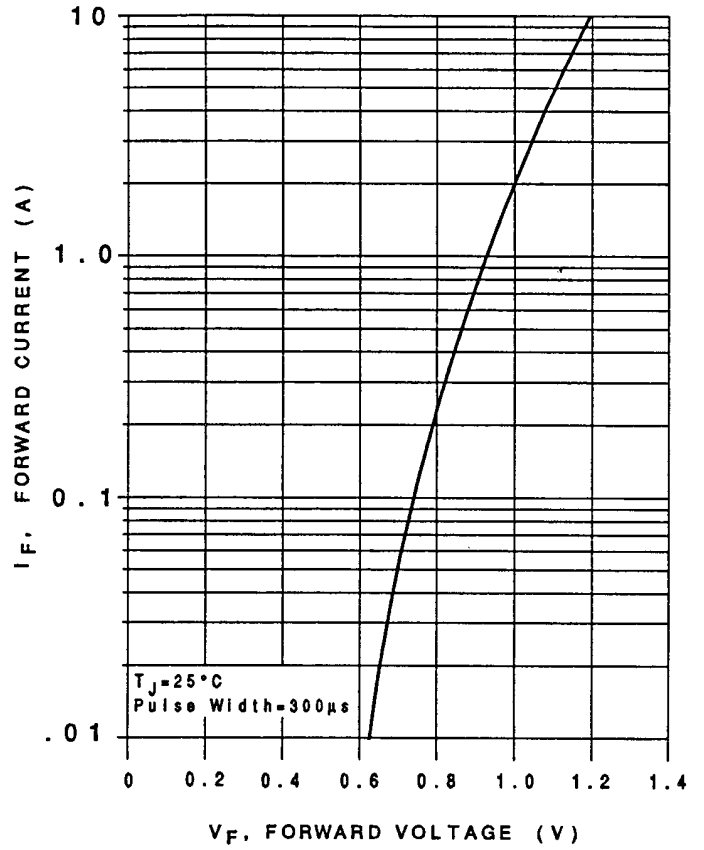
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# CR2F-010 SERIES RATING AND CHARACTERISTIC CURVES

FORWARD DERATING CURVE



TYPICAL FORWARD CHARACTERISTICS



## MECHANICAL OUTLINE

ALL DIMENSIONS  
IN INCHES (mm).

