

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

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Manufacturers of World Class Discrete Semiconductors  
www.centrasemi.com

## CR5F-010 SERIES

**GLASS PASSIVATED JUNCTION  
FAST RECOVERY RECTIFIER  
5.0 AMP, 100 THRU 1000 VOLTS**

**JEDEC DO-201AD CASE**

### DESCRIPTION

The Central Semiconductor CR5F Series types are axial lead silicon rectifiers designed for DC power supply and inverter applications where fast recovery times are needed.

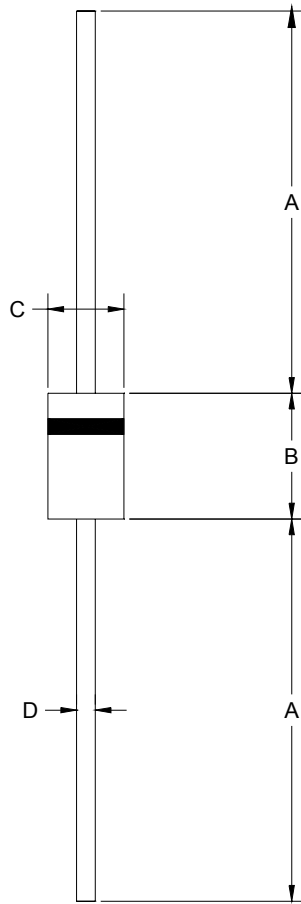
### MAXIMUM RATINGS ( $T_A=25^\circ\text{C}$ unless otherwise noted)

	<u>SYMBOL</u>	<u>CR5F</u> <u>-010</u>	<u>CR5F</u> <u>-020</u>	<u>CR5F</u> <u>-040</u>	<u>CR5F</u> <u>-060</u>	<u>CR5F</u> <u>-080</u>	<u>CR5F</u> <u>-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 ( $T_A=55^\circ\text{C}$ )	$I_O$				5.0			A
Peak Forward Surge Current	$I_{FSM}$				125			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>
$I_R$	$V_R$ =Rated $V_{RRM}$			5.0	$\mu\text{A}$
$I_R$	$V_R$ =Rated $V_{RRM}$ , $T_A=100^\circ\text{C}$			100	$\mu\text{A}$
$V_F$	$I_F=5.0\text{A}$			1.3	V
$t_{rr}$	$I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , Recover to 0.25A (100V thru 400V)			150	ns
$t_{rr}$	$I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , Recover to 0.25A (600V)			250	ns
$t_{rr}$	$I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , Recover to 0.25A (800V thru 1000V)			500	ns

JEDEC 201AD CASE - MECHANICAL OUTLINE



DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	1.000	-	25.40	-
B	0.283	0.375	7.20	9.53
C	0.189	0.210	4.80	5.33
D	0.047	0.052	1.20	1.32

DO-201AD (REV: R1)

R1

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