

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

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Manufacturer of World Class Discrete Semiconductors  
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## CR3F-010 SERIES 3.0 AMP FAST RECOVERY RECTIFIER

JEDEC D0-201AD CASE

**DESCRIPTION:** The CENTRAL SEMICONDUCTOR CR3F 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)

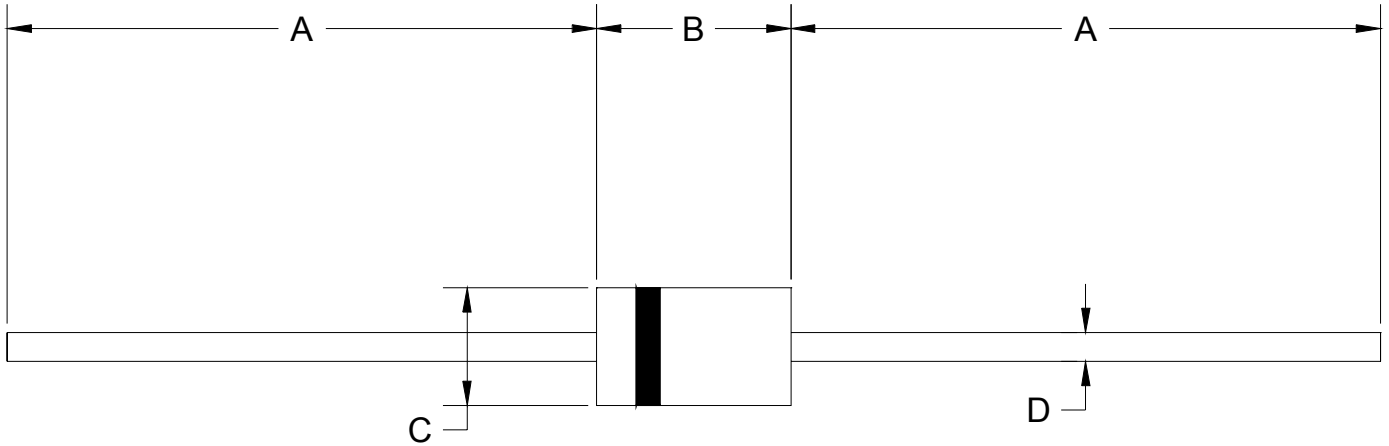
	SYMBOL	CR3F-010	CR3F-020	CR3F-040	CR3F-060	CR3F-080	CR3F-100	UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$	100	200	400	600	800	1000	V
DC Blocking Voltage	$V_R$	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	70	140	280	420	560	700	V
Average Forward Current ( $T_A=90^{\circ}\text{C}$ )	$I_O$				3.0			A
Peak Forward Surge Current (8.3ms)	$I_{FSM}$				150			A
Operating Temperature Range	$T_J$				-55 to +125			$^{\circ}\text{C}$
Storage Temperature Range	$T_{stg}$				-55 to +150			$^{\circ}\text{C}$
Thermal Resistance	$\Theta_{JA}$				15			$^{\circ}\text{C/W}$

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

SYMBOL	TEST CONDITIONS	TYP	MAX	UNITS
$I_R$	$V_R$ =Rated $V_{RRM}$ , $T_C=25^{\circ}\text{C}$		5.0	$\mu\text{A}$
$I_R$	$V_R$ =Rated $V_{RRM}$ , $T_C=100^{\circ}\text{C}$		100	$\mu\text{A}$
$V_F$	$I_F=3.0\text{A}$		1.2	V
$t_{rr}$	$I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , $I_{RR}=0.25\text{A}$ (CR3F-010, -020, -040)		150	ns
$t_{rr}$	$I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , $I_{RR}=0.25\text{A}$ (CR3F-060)		250	ns
$t_{rr}$	$I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , $I_{RR}=0.25\text{A}$ (CR3F-080,-100)		500	ns
$C_J$	$V_R=4.0\text{V}$ , $f=1.0\text{MHz}$ (CR3F-010, -020, -040)	65		pF
$C_J$	$V_R=4.0\text{V}$ , $f=1.0\text{MHz}$ (CR3F-060, -080, -100)	40		pF

(SEE REVERSE SIDE)

JEDEC DO-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)

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