

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

CR12F SERIES

12 AMP FAST RECOVERY RECTIFIER

100 THRU 1000 VOLTS

JEDEC DO-4 CASE

FEATURES

12 Amps at 150°C

Hermetic Seal

Stud Mounting

200 Amps surge current

Reliable internal construction

Extensive Temperature Range

DESCRIPTION

The CENTRAL SEMICONDUCTOR 12 ampere stud mounted Fast Recovery Silicon Rectifier is a high quality, well constructed, highly reliable component designed for use in all types of military, 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 ($T_C=25^\circ\text{C}$ unless otherwise noted)

	SYMBOL	CR12F -010	CR12F -020	CR12F -040	CR12F -060	CR12F -080	CR12F -100	UNIT
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 ($T_C=150^\circ\text{C}$)	I_O				12			A
Peak Forward Surge Current	I_{FSM}				200			A
Operating and Storage Junction Temperature	T_J, T_{stg}			-65 TO +200				$^\circ\text{C}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
V_F	$I_F=12\text{A}$		1.4	V
I_R	$V_R=\text{Rated } V_{RRM}$		25	μA
I_R	$V_R=\text{Rated } V_{RRM}, T_C=100^\circ\text{C}$		3.0	mA
t_{rr}	$I_F=1.0\text{A}$ to $V_R=30\text{V}$ (100V thru 600V)		200	ns
t_{rr}	$I_F=1.0\text{A}$ to $V_R=30\text{V}$ (800V thru 1000V)		300	ns

Normal Polarity: Cathode to stud (case)

For reverse polarity add "R" to suffix. EX: CR12-040R