

CMR1F-02M CMR1F-06M  
 CMR1F-04M CMR1F-10M

**SURFACE MOUNT SILICON  
 FAST RECOVERY RECTIFIERS  
 1.0 AMP, 200 THRU 1000 VOLT**



**SMA CASE**



[www.centalsemi.com](http://www.centalsemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMR1F-02M series 1.0 Amp surface mount silicon rectifier is a well constructed, highly reliable component designed for use in all types of commercial, industrial, entertainment, computer, and automotive applications where small size is required. The SMA case occupies 30% less board space than the SMB case.

**MARKING CODE: SEE MARKING CODE TABLE ON FOLLOWING PAGE**

**FEATURES:**

- High reliability
- Glass passivated chip
- Special selections available

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

	SYMBOL	CMR1F-02M	CMR1F-04M	CMR1F-06M	CMR1F-10M	UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$	200	400	600	1000	V
DC Blocking Voltage	$V_R$	200	400	600	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	140	280	420	700	V
Average Forward Current ( $T_L=120^\circ\text{C}$ )	$I_O$			1.0		A
Peak Forward Surge Current, $t_p=8.3\text{ms}$	$I_{FSM}$			30		A
Operating and Storage						
Junction Temperature	$T_J, T_{stg}$		-65 to +150			$^\circ\text{C}$
Thermal Resistance	$\theta_{JL}$		30			$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	TYP	MAX	UNITS
$I_R$	$V_R$ =Rated $V_{RRM}$		5.0	$\mu\text{A}$
$I_R$	$V_R$ =Rated $V_{RRM}$ , $T_A=125^\circ\text{C}$		200	$\mu\text{A}$
$V_F$	$I_F=1.0\text{A}$		1.3	V
$C_J$	$V_R=4.0\text{V}$ , $f=1.0\text{MHz}$	15		pF
$t_{rr}$	$I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , $I_{rr}=0.25\text{A}$ (CMR1F-02M, -04M)		150	ns
$t_{rr}$	$I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , $I_{rr}=0.25\text{A}$ (CMR1F-06M)		250	ns
$t_{rr}$	$I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , $I_{rr}=0.25\text{A}$ (CMR1F-10M)		500	ns

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**SMA CASE - MECHANICAL OUTLINE**



DEVICE	MARKING CODE
CMR1F-02M	CF02M
CMR1F-04M	CF04M
CMR1F-06M	CF06M
CMR1F-10M	CF10M

SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.030	0.060	0.76	1.52
B	0.004	0.008	0.10	0.20
C	0.006	0.012	0.15	0.30
D	0.078	0.103	1.98	2.62
E	0.188	0.220	4.78	5.59
F	0.090	0.115	2.29	2.92
G	0.050	0.070	1.27	1.78
H	0.157	0.181	3.99	4.60

SMA (REV: R2)

R3 (1-May 2015)

CMR1F-02M    CMR1F-06M  
CMR1F-04M    CMR1F-10M

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#### **SERVICES**

- Bonded Inventory
- Custom Electrical Screening
- Custom Electrical Characteristic Curves
- SPICE Models
- Custom Packaging
- Package Base Options
- Custom Device Development/ Multi Discrete Modules (MDM™)
- Bare Die Available for Hybrid Applications

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R3 (1-May 2015)