

CMR1U-01M CMR1U-06M  
 CMR1U-02M CMR1U-10M  
 CMR1U-04M

**SURFACE MOUNT ULTRA FAST  
 RECOVERY SILICON RECTIFIER  
 1 AMP, 100 THRU 1000 VOLTS**



**SMA CASE**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMR1U-01M Series 1.0 Amp Surface Mount Ultra Fast Recovery Silicon Rectifier is a high quality, 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. To order devices on 12mm Tape and Reel (5000/13" Reel), add TR13 suffix to part number.

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

**FEATURES:**

- Low cost
- High reliability
- Glass passivated chip
- Special selections available
- Superior lot to lot consistency
- "C" bend construction provides strain relief when mounted on pc board

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

	SYMBOL	CMR1U -01M	CMR1U -02M	CMR1U -04M	CMR1U -06M	CMR1U -10M	UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$	100	200	400	600	1000	V
DC Blocking Voltage	$V_R$	100	200	400	600	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	70	140	280	420	700	V
Average Forward Current ( $T_A=75^\circ\text{C}$ )	$I_O$			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 +175			$^\circ\text{C}$
Thermal Resistance	$\theta_{JL}$			30			$^\circ\text{C/W}$

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

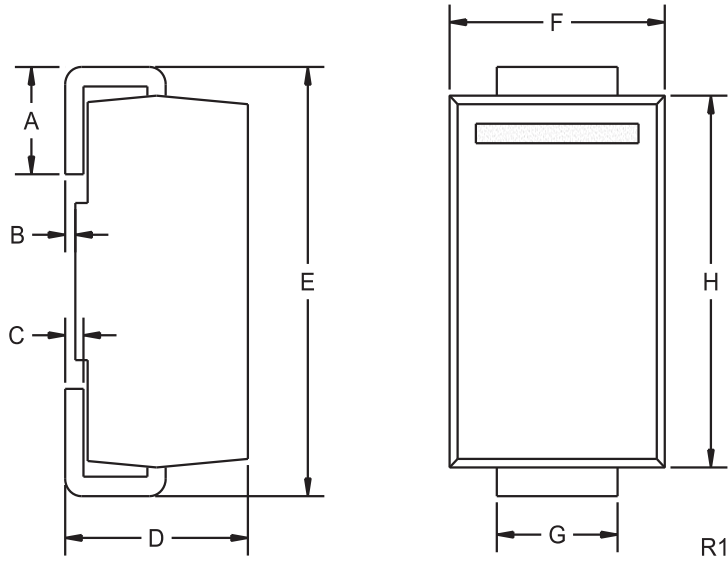
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_R$	$V_R=\text{Rated } V_{RRM}$		5.0	$\mu\text{A}$
$V_F$	$I_F=1.0\text{A}$ , (CMR1U-01M, -02M)		1.00	V
$V_F$	$I_F=1.0\text{A}$ , (CMR1U-04M)		1.25	V
$V_F$	$I_F=1.0\text{A}$ , (CMR1U-06M)		1.40	V
$V_F$	$I_F=1.0\text{A}$ , (CMR1U-10M)		1.70	V
$t_{rr}$	$I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , $I_{rr}=0.25\text{A}$ (CMR1U-01M, -02M)		35	ns
$t_{rr}$	$I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , $I_{rr}=0.25\text{A}$ (CMR1U-04M)		50	ns
$t_{rr}$	$I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , $I_{rr}=0.25\text{A}$ (CMR1U-06M)		75	ns
$t_{rr}$	$I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , $I_{rr}=0.25\text{A}$ (CMR1U-10M)		100	ns

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**SMA CASE - MECHANICAL OUTLINE**



DEVICE	MARKING CODE
CMR1U-01M	CU01M
CMR1U-02M	CU02M
CMR1U-04M	CU04M
CMR1U-06M	CU06M
CMR1U-10M	CU10M

SYMBOL	DIMENSIONS			
	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: R1)

R4 (3-February 2010)