

**CMR1U-01M**  
**CMR1U-02M**  
**CMR1U-04M**  
**CMR1U-06M**  
**CMR1U-10M**  
**SURFACE MOUNT**  
**ULTRA FAST RECOVERY SILICON**  
**RECTIFIER**  
**1.0 AMP, 100 THRU 1000 VOLTS**



# Central<sup>TM</sup>

## Semiconductor Corp.

### FEATURES:

- SUPERmini<sup>TM</sup> CASE
- 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

### DESCRIPTION:

The CENTRAL SEMICONDUCTOR 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

**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 (8.3ms)	$I_{FSM}$			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)

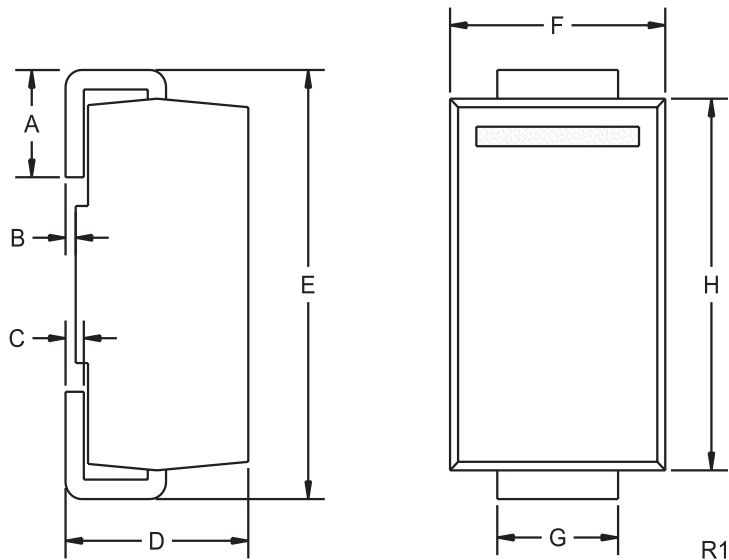
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_R$	$V_R=Rated$ $V_{RRM}$		5.0	$\mu\text{A}$
$V_F$	$I_F=1.0\text{A}$ , (CMR1U-01M, CMR1U-02M)		1.00	V
$V_F$	$I_F=1.0\text{A}$ , (CMR1U-04M)		1.25	V
$V_F$	$I_F=1.0\text{A}$ , (CMR1U-06M)		1.40	V
$V_F$	$I_F=1.0\text{A}$ , (CMR1U-10M)		1.70	V
$t_{rr}$	$I_F=0.5\text{A}$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

R3 (14-November 2002)

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**SMA CASE - MECHANICAL OUTLINE**



**MARKING CODES**

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)

R3 (14-November 2002)