

CMR3U-01M
CMR3U-02M
CMR3U-04M
CMR3U-06M
CMR3U-10M
SURFACE MOUNT
ULTRA FAST RECOVERY SILICON
RECTIFIER
3.0 AMP, 100 THRU 1000 VOLTS



CentralTM

Semiconductor Corp.

FEATURES:

- SUPER MINIATURE 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 3.0 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 SMB case occupies approximately 55% less board space than the SMC 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)

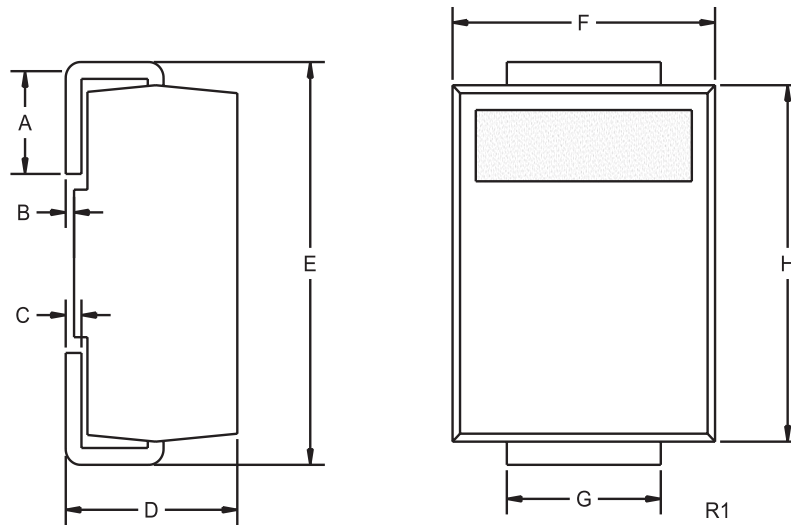
	SYMBOL	CMR3U -01M	CMR3U -02M	CMR3U -04M	CMR3U -06M	CMR3U -10M	UNITS
Peak Repetitive Reverse Voltage	V_{RRM}	100	200	400	600	1000	V
DC Blocking Voltage	V_R	100	200	400	600	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	70	140	280	420	700	V
Average Forward Current($T_A=75^\circ\text{C}$)	I_O			3.0			A
Peak Forward Surge Current (8.3ms)	I_{FSM}			100			A
Operating and Storage							
Junction Temperature	T_J, T_{stg}			-65 to +175			$^\circ\text{C}$
Thermal Resistance	θ_{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	μA
I_R	$V_R = \text{Rated } V_{RRM}, T_A = 100^\circ\text{C}$		500	μA
V_F	$I_F = 3.0\text{A}$ (CMR3U-01M, CMR3U-02M)		1.00	V
V_F	$I_F = 3.0\text{A}$ (CMR3U-04M)		1.25	V
V_F	$I_F = 3.0\text{A}$ (CMR3U-06M)		1.40	V
V_F	$I_F = 3.0\text{A}$ (CMR3U-10M)		2.00	V
t_{rr}	$I_F = 500\text{mA}, I_R = 1.0\text{A}, I_{rr} = 250\text{mA}$ (CMR3U-01M thru CMR3U-04M)		50	nS
t_{rr}	$I_F = 500\text{mA}, I_R = 1.0\text{A}, I_{rr} = 250\text{mA}$ (CMR3U-06M, CMR3U-10M)		100	nS

R2 (14-November 2002)

SMB CASE - MECHANICAL OUTLINE



MARKING CODES:

DEVICE	MARKING CODE
CMR3U-01M	CU301M
CMR3U-02M	CU302M
CMR3U-04M	CU304M
CMR3U-06M	CU306M
CMR3U-10M	CU310M

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	0.086	0.096	2.18	2.44
E	0.200	0.220	5.08	5.59
F	0.130	0.150	3.30	3.81
G	0.077	0.083	1.96	2.11
H	0.160	0.180	4.06	4.57

SMB (REV: R1)