

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



CentralTM

Semiconductor Corp.

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

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 3.0 Amp Surface Mount Silicon Ultra Fast Recovery Rectifier is a high quality, well constructed, highly reliable component designed for use in all types of commercial, industrial, entertainment, computer, and automotive applications. To order devices on 16mm Tape and Reel (3000/13" 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-01	CMR3U-02	CMR3U-04	CMR3U-06	CMR3U-10	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}			150			A
Operating and Storage							
Junction Temperature	T_J, T_{stg}			-65 to +175			$^\circ\text{C}$
Thermal Resistance	θ_{JL}			10			$^\circ\text{C/W}$

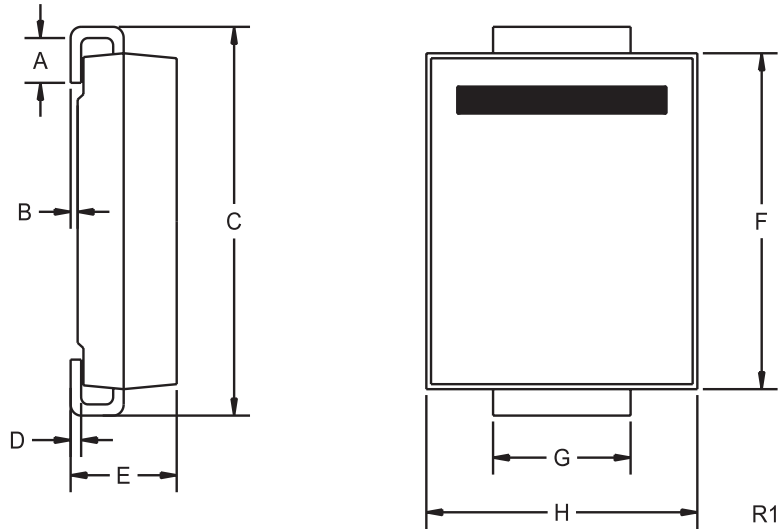
ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

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-01, CMR3U-02)		1.00	V
V_F	$I_F = 3.0\text{A}$ (CMR3U-04)		1.25	V
V_F	$I_F = 3.0\text{A}$ (CMR3U-06)		1.40	V
V_F	$I_F = 3.0\text{A}$ (CMR3U-10)		1.70	V
t_{rr}	$I_F = 500\text{mA}, I_R = 1.0\text{A}, I_{rr} = 250\text{mA}$ (CMR3U-01, -02, -04)		50	nS
t_{rr}	$I_F = 500\text{mA}, I_R = 1.0\text{A}, I_{rr} = 250\text{mA}$ (CMR3U-06, -10)		100	nS

R2 (14-November 2002)

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SMC CASE - MECHANICAL OUTLINE



MARKING CODES:

DEVICE	MARKING CODE
CMR3U-01	CU301
CMR3U-02	CU302
CMR3U-04	CU304
CMR3U-06	CU306
CMR3U-10	CU310

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	0.305	0.320	7.75	8.13
D	0.006	0.012	0.15	0.31
E	0.079	0.103	2.00	2.62
F	0.260	0.280	6.60	7.11
G	0.108	0.124	2.75	3.15
H	0.220	0.245	5.59	6.22

SMC (REV: R1)