

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



# Central<sup>TM</sup> 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	$\theta_{JL}$			10			$^\circ\text{C/W}$

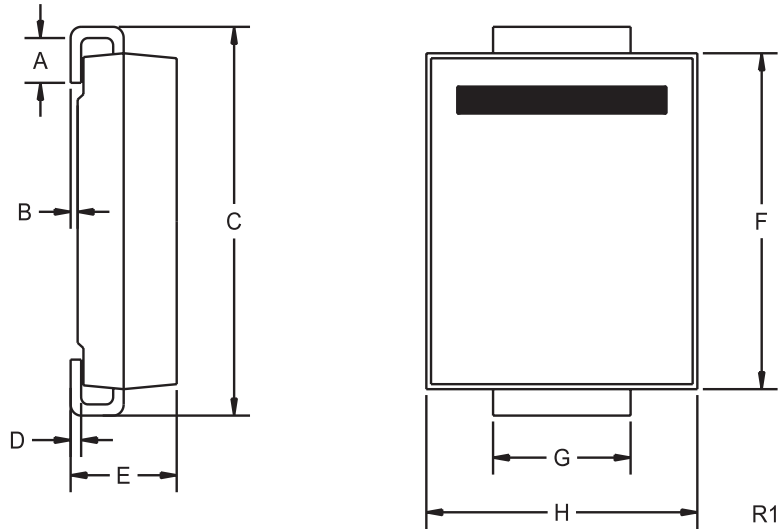
**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_R$	$V_R = \text{Rated } V_{RRM}$		5.0	$\mu\text{A}$
$I_R$	$V_R = \text{Rated } V_{RRM}, T_A = 100^\circ\text{C}$		500	$\mu\text{A}$
$V_F$	$I_F = 3.0\text{A}$ (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)