

CMR5U-02
CMR5U-04
CMR5U-06
CMR5U-08

**SURFACE MOUNT
ULTRA FAST RECOVERY RECTIFIER
5.0 AMP, 200 THRU 800 VOLTS**



SMC CASE

CentralTM
Semiconductor Corp.

FEATURES:

- LOW COST
- HIGH CURRENT DENSITY
-65% INCREASE COMPARED TO CMR3U SERIES
- HIGH PEAK FORWARD SURGE CURRENT (I_{FSM})
- LOW FORWARD VOLTAGE DROP (V_F)
- GLASS PASSIVATED CHIP
- "C" BEND CONSTRUCTION PROVIDES
STRAIN RELIEF WHEN MOUNTED ON PC BOARD

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 5.0 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

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

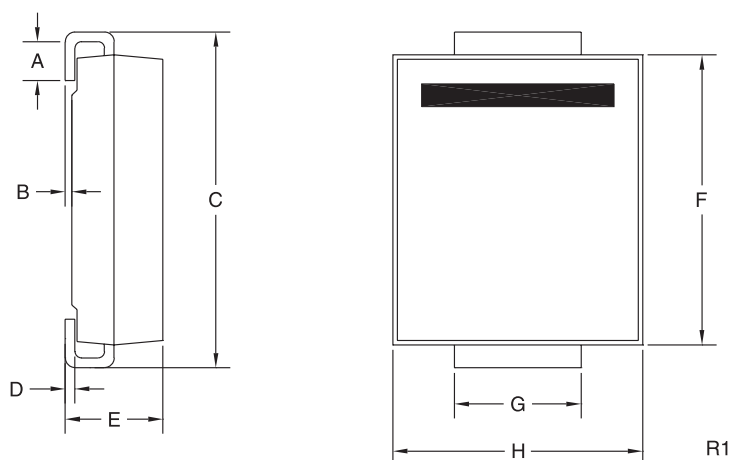
	SYMBOL	CMR5U -02	CMR5U -04	CMR5U -06	CMR5U -08	UNITS
Peak Repetitive Reverse Voltage	V_{RRM}	200	400	600	800	V
DC Blocking Voltage	V_R	200	400	600	800	V
RMS Reverse Voltage	$V_{R(RMS)}$	140	280	420	560	V
Average Forward Current ($T_A=55^\circ\text{C}$)	I_O			5.0		A
Peak Forward Surge Current(8.3ms)	I_{FSM}			175		A
Operating and Storage Junction Temperature	T_J, T_{stg}		-65 to +150			$^\circ\text{C}$
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	$V_R=\text{Rated } V_{RRM}$		10	μA
I_R	$V_R=\text{Rated } V_{RRM}, T_A=100^\circ\text{C}$		100	μA
V_F	$I_F=5.0\text{A}, (\text{CMR5U-02})$		1.0	V
V_F	$I_F=5.0\text{A}, (\text{CMR5U-04})$		1.3	V
V_F	$I_F=5.0\text{A}, (\text{CMR5U-06 and CMR5U-08})$		1.7	V
t_{rr}	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr} = 0.25\text{A} (\text{CMR5U-02 and CMR5U-04})$		50	ns
t_{rr}	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr} = 0.25\text{A} (\text{CMR5U-06 and CMR5U-08})$		100	ns

R0 (22-August 2001)

SMC CASE - MECHANICAL OUTLINE



DIMENSIONS				
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)

MARKING CODES:

DEVICE	MARKING CODE
CMR5U-02	CU502
CMR5U-04	CU504
CMR5U-06	CU506
CMR5U-08	CU508