

**CMR5U-02**  
**CMR5U-04**  
**CMR5U-06**  
**CMR5U-08**  
**SURFACE MOUNT**  
**ULTRA FAST RECOVERY RECTIFIER**  
**5.0 AMP, 200 THRU 800 VOLTS**



# Central<sup>TM</sup>

## 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)

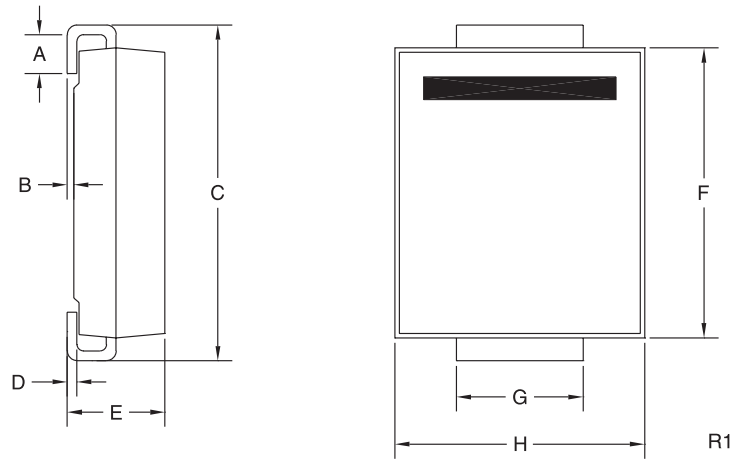
	SYMBOL	CMR5U-02	CMR5U-04	CMR5U-06	CMR5U-08	UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$	200	400	600	800	V
DC Blocking Voltage	$V_R$	200	400	600	800	V
RMS Reverse Voltage	$V_{R(RMS)}$	140	280	420	560	V
Average Forward Current ( $T_A=55^\circ\text{C}$ )	$I_O$			5.0		A
Peak Forward Surge Current(8.3ms)	$I_{FSM}$			175		A
Operating and Storage Junction Temperature	$T_J, T_{stg}$			-65 to +150		$^\circ\text{C}$
Thermal Resistance	$\theta_{JL}$			10		$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_R$	$V_R$ =Rated $V_{RRM}$		10	$\mu\text{A}$
$I_R$	$V_R$ =Rated $V_{RRM}$ , $T_A=100^\circ\text{C}$		100	$\mu\text{A}$
$V_F$	$I_F=5.0\text{A}$ , (CMR5U-02)		1.0	V
$V_F$	$I_F=5.0\text{A}$ , (CMR5U-04)		1.3	V
$V_F$	$I_F=5.0\text{A}$ , (CMR5U-06 and CMR5U-08)		1.7	V
$t_{rr}$	$I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , $I_{rr} = 0.25\text{A}$ (CMR5U-02 and CMR5U-04)		50	ns
$t_{rr}$	$I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , $I_{rr} = 0.25\text{A}$ (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

R0 ( 22-August 2001)