

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

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



**SMC CASE**



[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMR5U-02 Series 5.0 Amp Surface Mount 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. 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**

**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

**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, $t_p=8.3\text{ms}$	$I_{FSM}$			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)

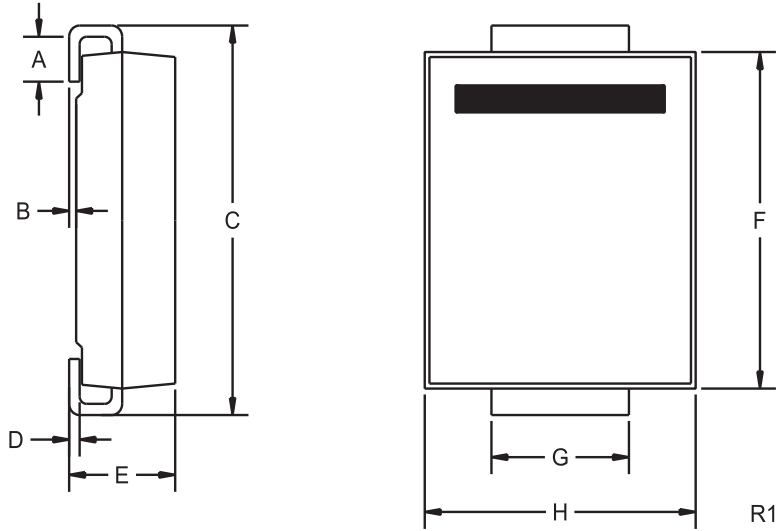
SYMBOL	TEST CONDITIONS	MAX	UNITS
$I_R$	$V_R=\text{Rated } V_{RRM}$	10	$\mu\text{A}$
$I_R$	$V_R=\text{Rated } V_{RRM}, T_A=100^\circ\text{C}$	100	$\mu\text{A}$
$V_F$	$I_F=5.0\text{A}, (\text{CMR5U-02})$	1.0	V
$V_F$	$I_F=5.0\text{A}, (\text{CMR5U-04})$	1.3	V
$V_F$	$I_F=5.0\text{A}, (\text{CMR5U-06, -08})$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

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**SMC CASE - MECHANICAL OUTLINE**



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

SYMBOL	DIMENSIONS			
	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)

R2 (8-February 2010)