

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<sub>FSM</sub>)
- Low forward voltage drop (V<sub>F</sub>)
- Glass passivated chip
- "C" bend construction provides strain relief when mounted on pc board

**MAXIMUM RATINGS:** (T<sub>A</sub>=25°C unless otherwise noted)

	SYMBOL	CMR5U-02	CMR5U-04	CMR5U-06	CMR5U-08	UNITS
Peak Repetitive Reverse Voltage	V <sub>R</sub> RM	200	400	600	800	V
DC Blocking Voltage	V <sub>R</sub>	200	400	600	800	V
RMS Reverse Voltage	V <sub>R</sub> (RMS)	140	280	420	560	V
Average Forward Current (T <sub>A</sub> =55°C)	I <sub>O</sub>			5.0		A
Peak Forward Surge Current, tp=8.3ms	I <sub>FSM</sub>			175		A
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>			-65 to +150		°C
Thermal Resistance	θ <sub>JL</sub>			10		°C/W

**ELECTRICAL CHARACTERISTICS:** (T<sub>A</sub>=25°C) unless otherwise noted)

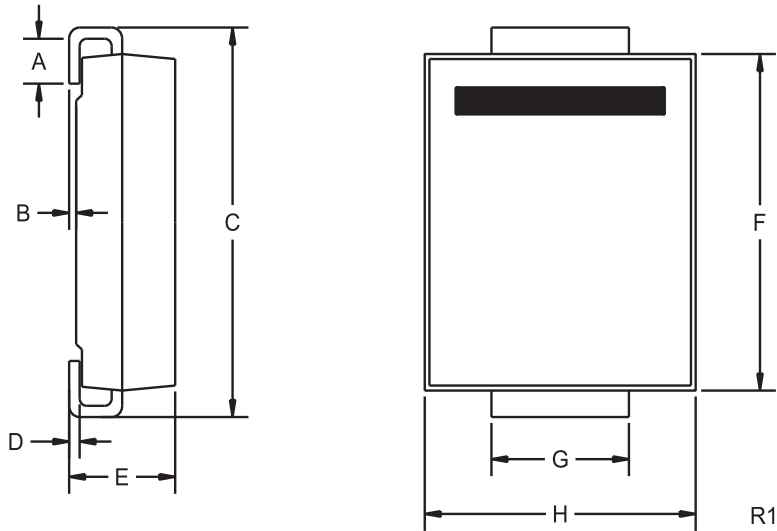
SYMBOL	TEST CONDITIONS	MAX	UNITS
I <sub>R</sub>	V <sub>R</sub> =Rated V <sub>R</sub> RM	10	µA
I <sub>R</sub>	V <sub>R</sub> =Rated V <sub>R</sub> RM, T <sub>A</sub> =100°C	100	µA
V <sub>F</sub>	I <sub>F</sub> =5.0A, (CMR5U-02)	1.0	V
V <sub>F</sub>	I <sub>F</sub> =5.0A, (CMR5U-04)	1.3	V
V <sub>F</sub>	I <sub>F</sub> =5.0A, (CMR5U-06, -08)	1.7	V
t <sub>rr</sub>	I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>rr</sub> =0.25A (CMR5U-02, -04)	50	ns
t <sub>rr</sub>	I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>rr</sub> =0.25A (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)