



**THE DATASHEET OF  
CMR5U-02 TR13 PBFREE**



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

**SURFACE MOUNT SILICON  
 ULTRA FAST  
 RECOVERY RECTIFIERS  
 5.0 AMP, 200 THRU 800 VOLT**



**SMC CASE**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMR5U-02 series 5.0 Amp surface mount silicon rectifiers are highly reliable components 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:**

- 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>RRM</sub>	200	400	600	800	V
DC Blocking Voltage	V <sub>R</sub>	200	400	600	800	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	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)

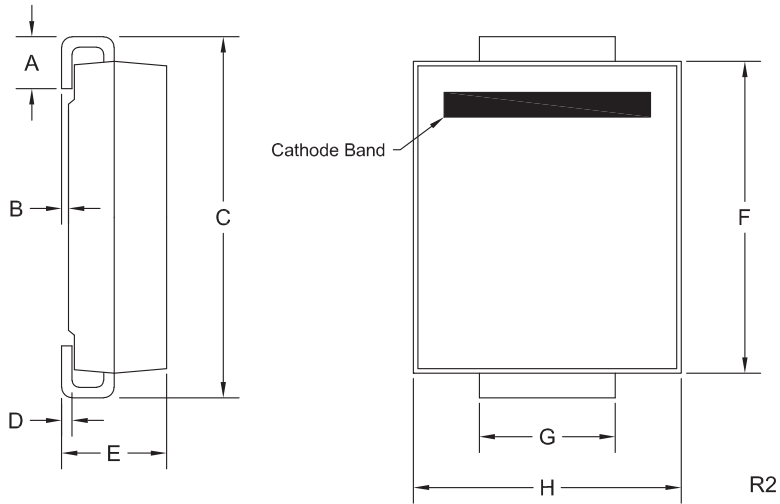
SYMBOL	TEST CONDITIONS	MAX	UNITS
I <sub>R</sub>	V <sub>R</sub> =Rated V <sub>RRM</sub>	10	μA
I <sub>R</sub>	V <sub>R</sub> =Rated V <sub>RRM</sub> , T <sub>A</sub> =100°C	100	μA
V <sub>F</sub>	I <sub>F</sub> =5.0A, (CMR5U-02)	1.0	V
V <sub>F</sub>	I <sub>F</sub> =5.0A, (CMR5U-04)	1.3	V
V <sub>F</sub>	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

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

**SURFACE MOUNT SILICON  
 ULTRA FAST  
 RECOVERY RECTIFIERS  
 5.0 AMP, 200 THRU 800 VOLT**



**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	0.002	0.008	0.05	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	0.128	2.75	3.25
H	0.220	0.245	5.59	6.22

SMC (REV: R2)

R3 (11-September 2013)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



---

### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

---

### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

---

### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

---

### CONTACT US

#### Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.  
145 Adams Avenue  
Hauppauge, NY 11788 USA  
Main Tel: (631) 435-1110  
Main Fax: (631) 435-1824  
Support Team Fax: (631) 435-3388  
[www.centrasemi.com](http://www.centrasemi.com)

**Worldwide Field Representatives:**  
[www.centrasemi.com/wwreps](http://www.centrasemi.com/wwreps)



**Worldwide Distributors:**  
[www.centrasemi.com/wwdistributors](http://www.centrasemi.com/wwdistributors)

---

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: [www.centrasemi.com/terms](http://www.centrasemi.com/terms)

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

-  [View CMR5U-02 TR13 PBFREE on WIN SOURCE](#)
-  [Central Semiconductor Corp Information](#)

## Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management