

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

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_{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	θ_{JL}			10		$^\circ\text{C/W}$

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

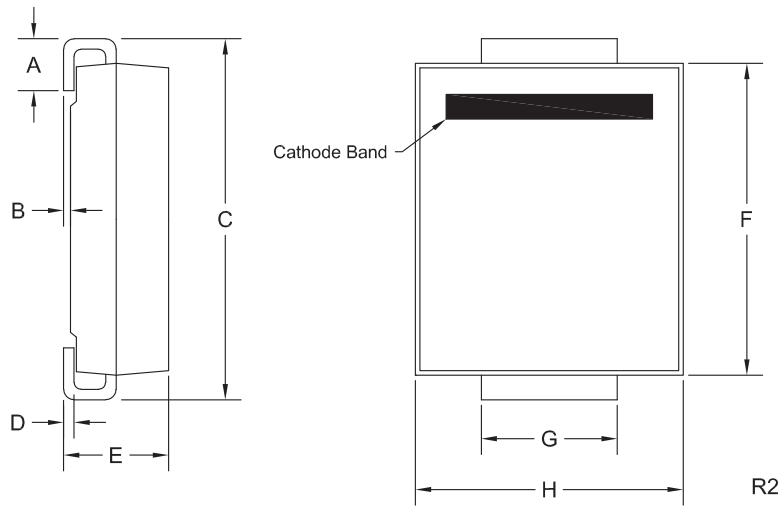
SYMBOL	TEST CONDITIONS	MAX	UNITS
I_R	V_R =Rated V_{RRM}	10	μA
I_R	V_R =Rated V_{RRM} , $T_A=100^\circ\text{C}$	100	μA
V_F	$I_F=5.0\text{A}$, (CMR5U-02)	1.0	V
V_F	$I_F=5.0\text{A}$, (CMR5U-04)	1.3	V
V_F	$I_F=5.0\text{A}$, (CMR5U-06, -08)	1.7	V
t_{rr}	$I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$ (CMR5U-02, -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, -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	0.002	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 (2nd 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

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