

CMR3U-01 CMR3U-06  
 CMR3U-02 CMR3U-10  
 CMR3U-04

**SURFACE MOUNT SILICON  
 ULTRA FAST RECOVERY RECTIFIERS  
 3.0 AMP, 100 THRU 1000 VOLT**



**SMC CASE**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMR3U-01 series 3.0 Amp surface mount silicon Ultra Fast Recovery 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 reliability
- Glass passivated chip
- Special selections available
- "C" bend construction provides strain relief when mounted on PC board

**MAXIMUM RATINGS:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

	SYMBOL	CMR3U-01	CMR3U-02	CMR3U-04	CMR3U-06	CMR3U-10	UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$	100	200	400	600	1000	V
DC Blocking Voltage	$V_R$	100	200	400	600	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	70	140	280	420	700	V
Average Forward Current ( $T_A=75^\circ\text{C}$ )	$I_O$			3.0			A
Peak Forward Surge Current, $t_p=8.3\text{ms}$	$I_{FSM}$			150			A
Operating and Storage Junction Temperature	$T_J, T_{stg}$			-65 to +175			$^\circ\text{C}$
Thermal Resistance	$\Theta_{JL}$			10			$^\circ\text{C/W}$

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

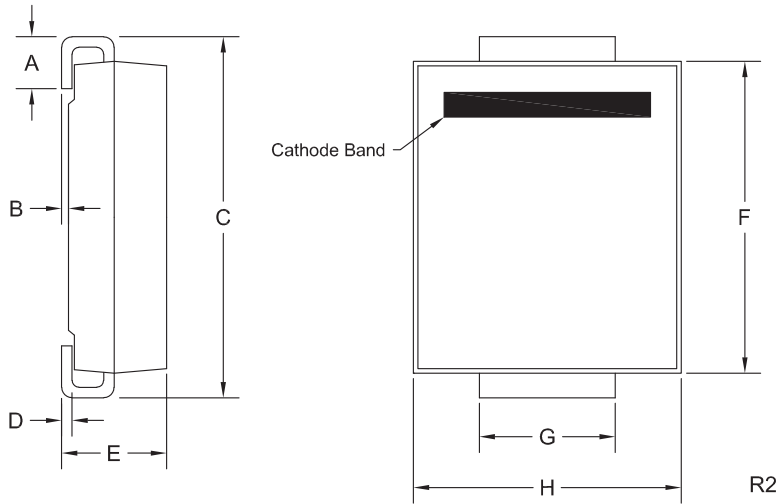
SYMBOL	TEST CONDITIONS	MAX	UNITS
$I_R$	$V_R$ =Rated $V_{RRM}$	5.0	$\mu\text{A}$
$I_R$	$V_R$ =Rated $V_{RRM}$ , $T_A=100^\circ\text{C}$	500	$\mu\text{A}$
$V_F$	$I_F=3.0\text{A}$ (CMR3U-01, -02)	1.00	V
$V_F$	$I_F=3.0\text{A}$ (CMR3U-04)	1.25	V
$V_F$	$I_F=3.0\text{A}$ (CMR3U-06)	1.40	V
$V_F$	$I_F=3.0\text{A}$ (CMR3U-10)	1.70	V
$t_{rr}$	$I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , $I_{rr}=0.25\text{A}$ (CMR3U-01, -02, -04)	50	ns
$t_{rr}$	$I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , $I_{rr}=0.25\text{A}$ (CMR3U-06, -10)	100	ns

CMR3U-01 CMR3U-06  
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 CMR3U-04



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**SMC CASE - MECHANICAL OUTLINE**



DEVICE	MARKING CODE
CMR3U-01	CU301
CMR3U-02	CU302
CMR3U-04	CU304
CMR3U-06	CU306
CMR3U-10	CU310

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)

R4 (11-September 2013)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### 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

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### 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

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### 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).

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### CONTACT US

#### Corporate Headquarters & Customer Support Team

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