

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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

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





www.centralsemi.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<sub>A</sub>=25°C unless otherwise noted)

	SYMBOL	CMR3U	CMR3U	CMR3U	CMR3U	CMR3U		
		<u>-01</u>	<u>-02</u>	<u>-04</u>	<u>-06</u>	<u>-10</u>	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 <sub>R(RMS)</sub>	70	140	280	420	700	V	
Average Forward Current (T <sub>A</sub> =75°C)	IO			3.0			Α	
Peak Forward Surge Current, tp=8.3ms	I <sub>FSM</sub>			150			Α	
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>		-	65 to +17	5		°C	
Thermal Resistance	$\Theta_{,\mathrm{JI}}$			10			°C/W	

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

SYMBOL	TEST CONDITIONS	MAX	UNITS
$I_{R}$	$V_R$ =Rated $V_{RRM}$	5.0	μΑ
$I_{R}$	V <sub>R</sub> =Rated V <sub>RRM</sub> , T <sub>A</sub> =100°C	500	μΑ
$V_{F}$	I <sub>F</sub> =3.0A (CMR3U-01, -02)	1.00	V
$V_{F}$	I <sub>F</sub> =3.0A (CMR3U-04)	1.25	V
$V_{F}$	I <sub>F</sub> =3.0A (CMR3U-06)	1.40	V
$V_{F}$	I <sub>F</sub> =3.0A (CMR3U-10)	1.70	V
t <sub>rr</sub>	I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>rr</sub> =0.25A (CMR3U-01, -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 (CMR3U-06, -10)	100	ns

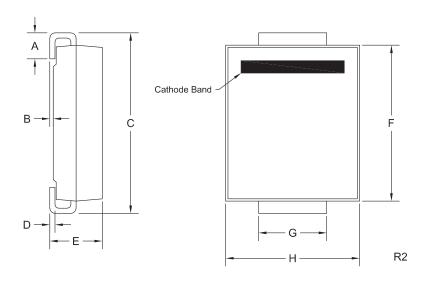
CMR3U-01 CMR3U-06 CMR3U-02 CMR3U-10

CMR3U-04



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

# **SMC CASE - MECHANICAL OUTLINE**



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

DIMENSIONS						
	INCHES		MILLIMETERS			
SYMBOL	MIN	MAX	MIN	MAX		
Α	0.030	0.060	0.76	1.52		
В	0.002	0.008	0.05	0.20		
С	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		
Н	0.220	0.245	5.59	6.22		

SMC (REV: R2)

## **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 guick 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).
- If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

#### **CONTACT US**

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