

CMR1U-01    CMR1U-06  
 CMR1U-02    CMR1U-08  
 CMR1U-04    CMR1U-10

**SURFACE MOUNT SILICON  
 ULTRA FAST RECOVERY RECTIFIERS  
 1 AMP, 100 THRU 1000 VOLTS**



**SMB CASE**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMR1U-01 series 1 Amp silicon Ultra Fast Recovery 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 12mm Tape and Reel (3000/ 13" Reel), add TR13 suffix to part number.

**MARKING CODE: SEE MARKING CODE TABLE ON FOLLOWING PAGE**

**FEATURES:**

- Special selections available
- High reliability
- Superior lot to lot consistency
- 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	-01	-02	CMR1U		-08	-10	UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$	100	200	400	600	800	1000	V
DC Blocking Voltage	$V_R$	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	70	140	280	420	560	700	V
Average Forward Current ( $T_A=75^\circ\text{C}$ )	$I_O$				1.0			A
Peak Forward Surge Current, $t_p=8.3\text{ms}$	$I_{FSM}$				30			A
Operating and Storage Junction Temperature	$T_J, T_{stg}$				-65 to +175			$^\circ\text{C}$
Thermal Resistance	$\theta_{JL}$				20			$^\circ\text{C/W}$

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

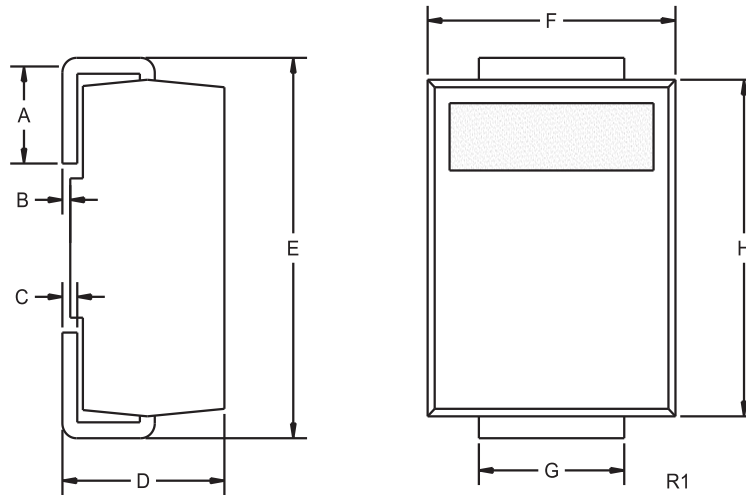
SYMBOL	TEST CONDITIONS	MAX	UNITS
$I_R$	$V_R=\text{Rated } V_{RRM}$	5.0	$\mu\text{A}$
$I_R$	$V_R=\text{Rated } V_{RRM}, T_A=125^\circ\text{C}$	100	$\mu\text{A}$
$V_F$	$I_F=1.0\text{A}, (\text{CMR1U-01, CMR1U-02})$	1.0	V
$V_F$	$I_F=1.0\text{A}, (\text{CMR1U-04})$	1.25	V
$V_F$	$I_F=1.0\text{A}, (\text{CMR1U-06})$	1.40	V
$V_F$	$I_F=1.0\text{A}, (\text{CMR1U-08, CMR1U-10})$	1.70	V
$t_{rr}$	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A} (\text{CMR1U-01, -02, -04})$	50	ns
$t_{rr}$	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A} (\text{CMR1U-06, -08, -10})$	100	ns

CMR1U-01	CMR1U-06
CMR1U-02	CMR1U-08
CMR1U-04	CMR1U-10



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**SMB CASE - MECHANICAL OUTLINE**



DEVICE	MARKING CODE
CMR1U-01	CU01
CMR1U-02	CU02
CMR1U-04	CU04
CMR1U-06	CU06
CMR1U-08	CU08
CMR1U-10	CU10

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	0.006	0.012	0.15	0.30
D	0.086	0.096	2.18	2.44
E	0.200	0.220	5.08	5.59
F	0.130	0.150	3.30	3.81
G	0.077	0.083	1.96	2.11
H	0.160	0.180	4.06	4.57

SMB (REV: R1)

R5 (21-January 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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