

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

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



SMB CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMR1U-01 Series 1.0 Amp Surface Mount 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:

- Low cost
- 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	CMR1U -01	CMR1U -02	CMR1U -04	CMR1U -06	CMR1U -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			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	θ_{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	μA
I_R	$V_R=\text{Rated } V_{RRM}, T_A=125^\circ\text{C}$	100	μA
V_F	$I_F=1.0\text{A}$, (CMR1U-01, CMR1U-02)	1.0	V
V_F	$I_F=1.0\text{A}$, (CMR1U-04)	1.25	V
V_F	$I_F=1.0\text{A}$, (CMR1U-06)	1.40	V
V_F	$I_F=1.0\text{A}$, (CMR1U-10)	1.70	V
t_{rr}	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$ (CMR1U-01, 02, 04)	50	ns
t_{rr}	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$ (CMR1U-06, 10)	100	ns

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SMB CASE - MECHANICAL OUTLINE



DEVICE	MARKING CODE
CMR1U-01	CU01
CMR1U-02	CU02
CMR1U-04	CU04
CMR1U-06	CU06
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)

R4 (3-February 2010)