



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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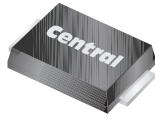
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CMR1U-02FL
 CMR1U-04FL
 CMR1U-06FL

**SURFACE MOUNT ULTRA FAST
 RECOVERY SILICON RECTIFIER
 1 AMP, 200 THRU 600 VOLTS**



SMBFL CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMR1U-02FL series devices are 1.0 amp, surface mount, ultra fast recovery silicon rectifiers packaged in the low profile SMBFL case. The SMBFL fits on existing industry standard SMB mounting pad layouts.

MARKING CODE: SEE MARKING CODE TABLE ON FOLLOWING PAGE

APPLICATIONS:

- DC-DC converters
- Flyback diode
- Freewheeling diode

FEATURES:

- Ultra fast recovery time
- Low capacitance

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

	SYMBOL	CMR1U -02FL	CMR1U -04FL	CMR1U -06FL	UNITS
Peak Repetitive Reverse Voltage	V_{RRM}	200	400	600	V
DC Blocking Voltage	V_R	200	400	600	V
RMS Reverse Voltage	$V_{R(RMS)}$	140	280	420	V
Average Forward Current ($T_L=120^\circ\text{C}$)	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}		-55 to +150		$^\circ\text{C}$
Thermal Resistance	θ_{JA}		62.5		$^\circ\text{C/W}$
Thermal Resistance	θ_{JL}		20		$^\circ\text{C/W}$

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

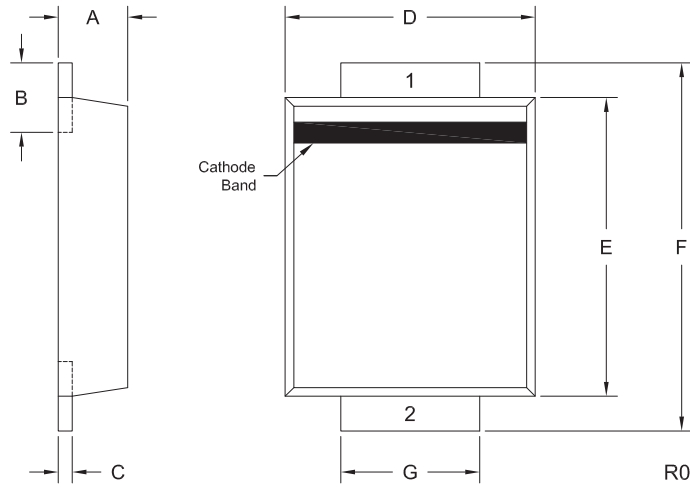
SYMBOL	TEST CONDITIONS	TYP	MAX	UNITS
I_R	$V_R=\text{Rated } V_{RRM}$	0.01	1.0	μA
V_F	$I_F=1.0\text{A}$, (CMR1U-02FL)		1.0	V
V_F	$I_F=1.0\text{A}$, (CMR1U-04FL)		1.3	V
V_F	$I_F=1.0\text{A}$, (CMR1U-06FL)		1.7	V
C_J	$V_R=4.0\text{V}$, $f=1.0\text{MHz}$ (CMR1U-02FL)	18		pF
C_J	$V_R=4.0\text{V}$, $f=1.0\text{MHz}$ (CMR1U-04FL)	10		pF
C_J	$V_R=4.0\text{V}$, $f=1.0\text{MHz}$ (CMR1U-06FL)	8.0		pF
t_{rr}	$I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$ (CMR1U-02FL, 04FL)		50	ns
t_{rr}	$I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$ (CMR1U-06FL)		100	ns

CMR1U-02FL
 CMR1U-04FL
 CMR1U-06FL

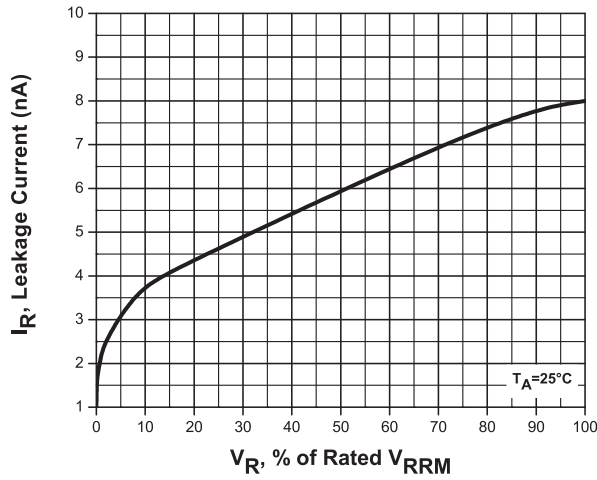
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SMBFL CASE - MECHANICAL OUTLINE



Typical Reverse Leakage Characteristics



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.035	0.044	0.90	1.10
B	0.031	0.048	0.80	1.20
C	0.006	0.010	0.15	0.25
D	0.137	0.146	3.50	3.70
E	0.161	0.178	4.10	4.50
F	0.200	0.217	5.10	5.50
G	0.074	0.083	1.90	2.10

SMBFL (REV: R0)

LEAD CODE:

- 1) Cathode
- 2) Anode

DEVICE	MARKING CODE
CMR1U-02FL	CU02FL
CMR1U-04FL	CU04FL
CMR1U-06FL	CU06FL

R2 (2-November 2012)