

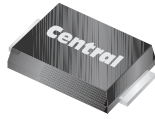


**THE DATASHEET OF
CMR1U-06FL TR13 PBFREE**



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)

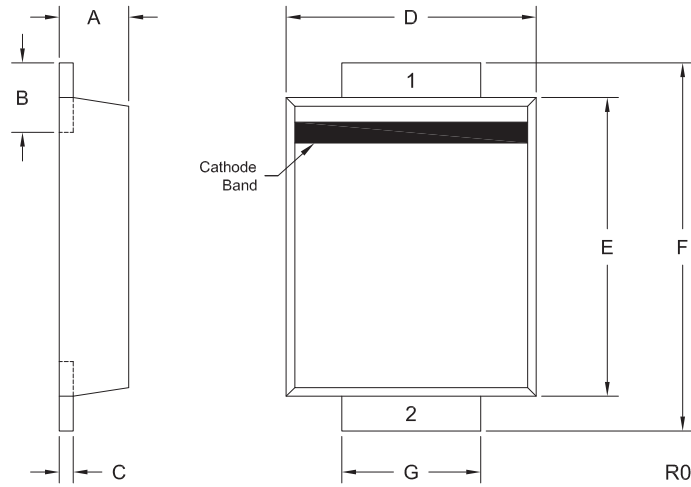
SYMBOL	TEST CONDITIONS	TYP	MAX	UNITS
I_R	$V_R=\text{Rated } V_{RRM}$	0.01	1.0	μA
V_F	$I_F=1.0\text{A}$, (CMR1U-02FL)		1.0	V
V_F	$I_F=1.0\text{A}$, (CMR1U-04FL)		1.3	V
V_F	$I_F=1.0\text{A}$, (CMR1U-06FL)		1.7	V
C_J	$V_R=4.0\text{V}$, $f=1.0\text{MHz}$ (CMR1U-02FL)	18		pF
C_J	$V_R=4.0\text{V}$, $f=1.0\text{MHz}$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

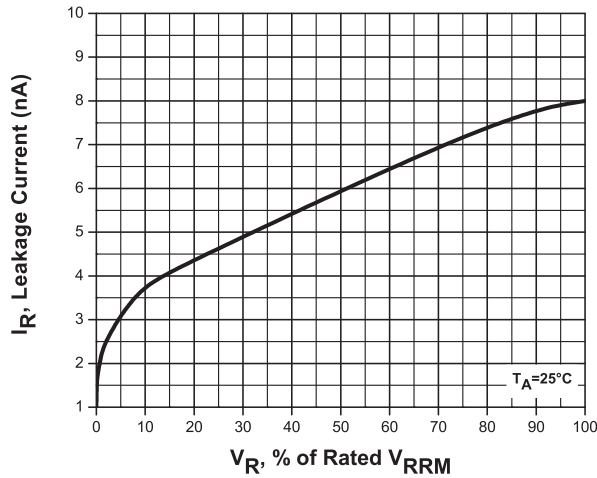
**SURFACE MOUNT ULTRA FAST
 RECOVERY SILICON RECTIFIER
 1 AMP, 200 THRU 600 VOLTS**



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)

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 quick ship samples (2nd 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).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.
145 Adams Avenue
Hauppauge, NY 11788 USA
Main Tel: (631) 435-1110
Main Fax: (631) 435-1824
Support Team Fax: (631) 435-3388
www.centrasemi.com

Worldwide Field Representatives:
www.centrasemi.com/wwreps

Worldwide Distributors:
www.centrasemi.com/wwdistributors

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: www.centrasemi.com/terms

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- [View **CMR1U-06FL TR13 PBFREE** on WIN SOURCE](#)
- [Central Semiconductor Corp Information](#)

Optimize Your Supply Chain with WIN SOURCE Solutions

- ✓ Global Sourcing Solution
- ✓ Obsolete Management
- ✓ Cost Control Management
- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management