

CMR1U-13M

**SURFACE MOUNT SILICON
ULTRA FAST RECOVERY RECTIFIER
1.0 AMP, 1300 VOLT**



SMA CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMR1U-13M is a highly reliable 1.0 Amp silicon Ultra Fast Recovery rectifier designed for use in all types of high voltage applications where small size is required.

MARKING CODE: CU13M

APPLICATIONS:

- Freewheeling diode
- Power factor correction
- Power supply snubber

FEATURES:

- High reverse voltage
- Ultra fast recovery time
- Low leakage current

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

	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	V_{RRM}	1300	V
DC Blocking Voltage	V_R	1300	V
RMS Reverse Voltage	$V_{R(RMS)}$	910	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}	30	$^{\circ}\text{C/W}$

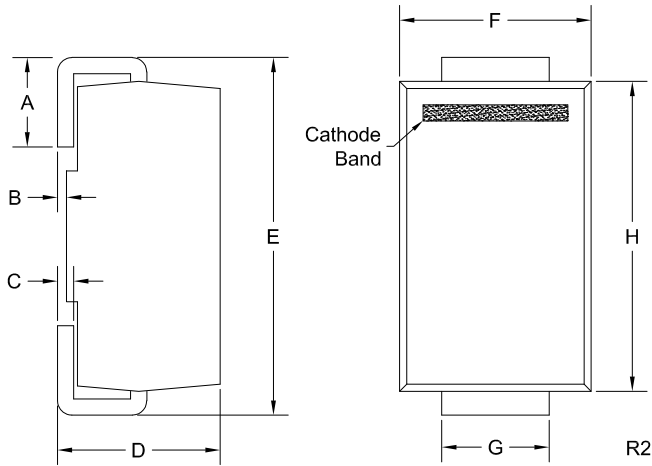
ELECTRICAL CHARACTERISTICS: ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=1300\text{V}$			5.0	μA
BV_R	$I_R=0.5\text{mA}$	1300			V
V_F	$I_F=1.0\text{A}$			1.9	V
t_{rr}	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$			75	ns
C_J	$V_R=4.0\text{V}, f=1.0\text{MHz}$		6.0		pF

CMR1U-13M
SURFACE MOUNT SILICON
ULTRA FAST RECOVERY RECTIFIER
1.0 AMP, 1300 VOLT



SMA CASE - MECHANICAL OUTLINE



SYMBOL	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	0.078	0.103	1.98	2.62
E	0.188	0.220	4.78	5.59
F	0.090	0.115	2.29	2.92
G	0.050	0.070	1.27	1.78
H	0.157	0.181	3.99	4.60

SMA (REV: R2)

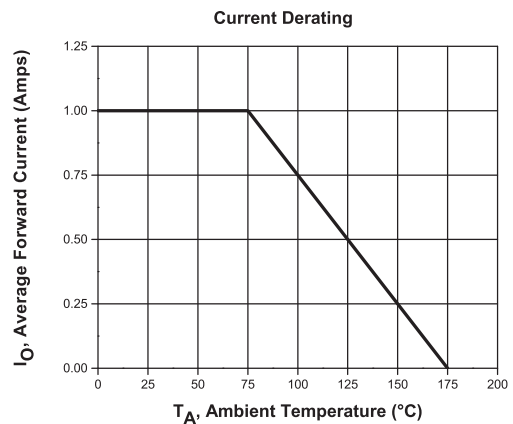
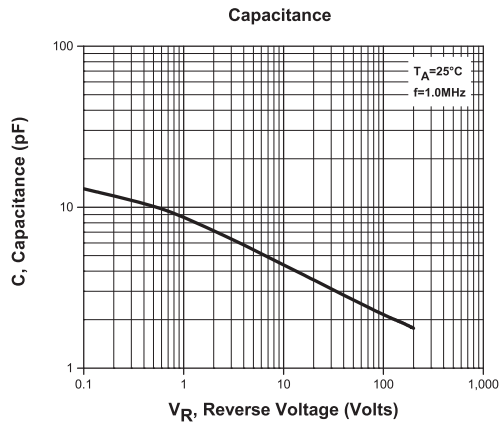
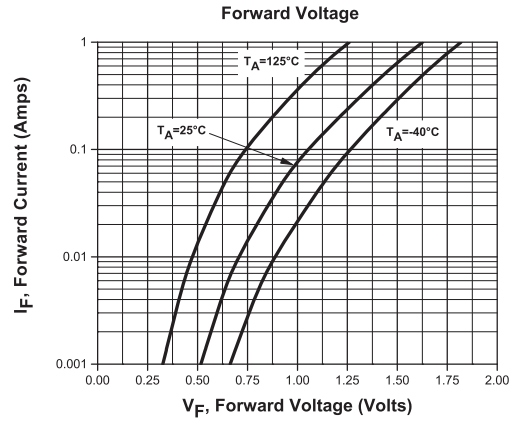
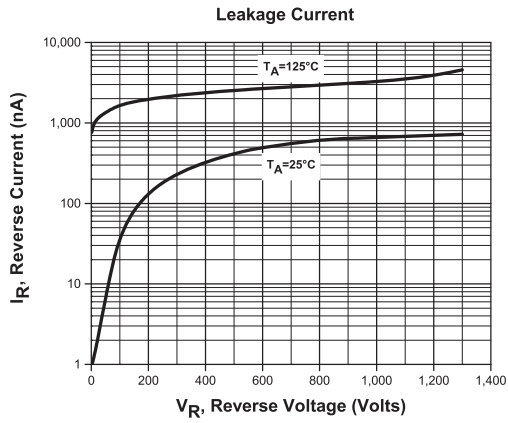
R2 (1-May 2015)

CMR1U-13M

SURFACE MOUNT SILICON
ULTRA FAST RECOVERY RECTIFIER
1.0 AMP, 1300 VOLT



TYPICAL ELECTRICAL CHARACTERISTICS



R2 (1-May 2015)

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

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



SERVICES

- Bonded Inventory
- Custom Electrical Screening
- Custom Electrical Characteristic Curves
- SPICE Models
- Custom Packaging
- Package Base Options
- Custom Device Development/ Multi Discrete Modules (MDM™)
- Bare Die Available for Hybrid Applications

LIMITATIONS AND DAMAGES DISCLAIMER: In no event shall Central be liable for any collateral, indirect, punitive, incidental, consequential, or exemplary damages in connection with or arising out of a purchase order or contract or the use of products provided hereunder, regardless of whether Central has been advised of the possibility of such damages. Excluded damages shall include, but not be restricted to: cost of removal or reinstallation, rework, ancillary costs to the procurement of substitute products, loss of profits, loss of savings, loss of use, loss of data, or business interruption. No claim, suit, or action shall be brought against Central more than two (2) years after the related cause of action has occurred.

In no event shall Central's aggregate liability from any warranty, indemnity, or other obligation arising out of or in connection with a purchase order or contract, or any use of any Central product provided hereunder, exceed the total amount paid to Central for the specific products sold under a purchase order or contract with respect to which losses or damages are claimed. The existence of more than one (1) claim against the specific products sold to Buyer under a purchase order or contract shall not enlarge or extend this limit.

Buyer understands and agrees that the foregoing liability limitations are essential elements of a purchase order or contract and that in the absence of such limitations, the material and economic terms of the purchase order or contract would be substantially different.

R6 (1-May 2015)