

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)

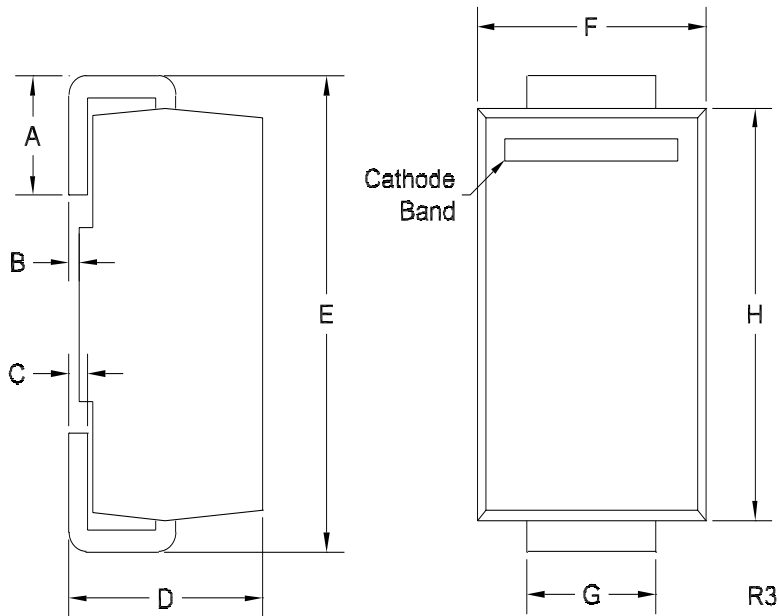
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=1300\text{V}$			5.0	μA
BV_R	$I_R=0.5\text{mA}$	1300			V
V_F	$I_F=1.0\text{A}$			1.9	V
t_{rr}	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$			75	ns
C_J	$V_R=4.0\text{V}, f=1.0\text{MHz}$		6.0		pF

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SMA CASE - MECHANICAL OUTLINE



DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.030	0.060	0.76	1.52
B	0.002	0.008	0.05	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:R3)

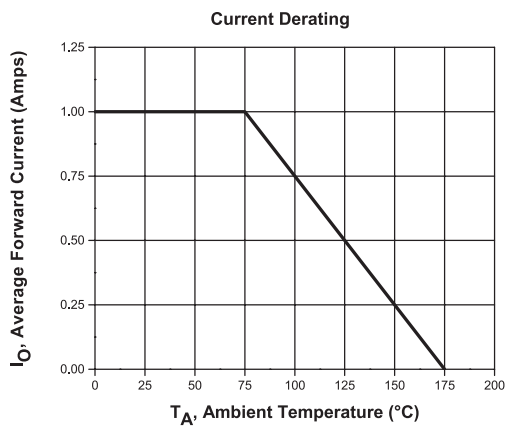
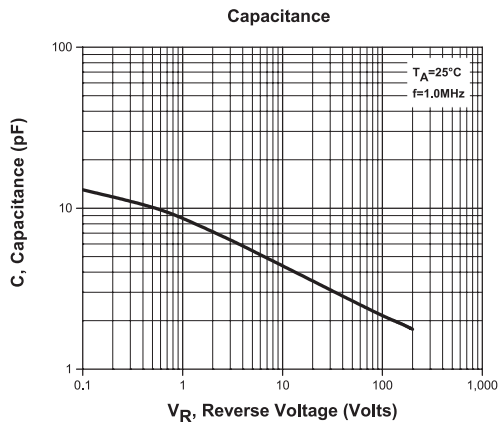
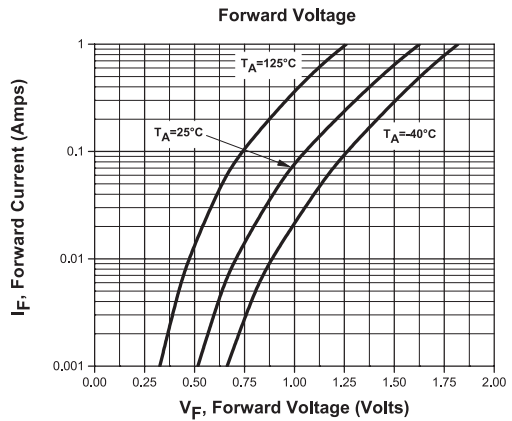
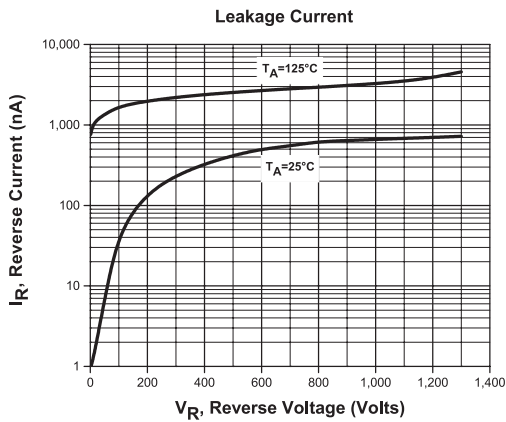
R3 (02-June 2023)

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TYPICAL ELECTRICAL CHARACTERISTICS



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

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