

CMR1U-13M

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



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



SMA CASE

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 | $^{\circ}\text{C/W}$ |

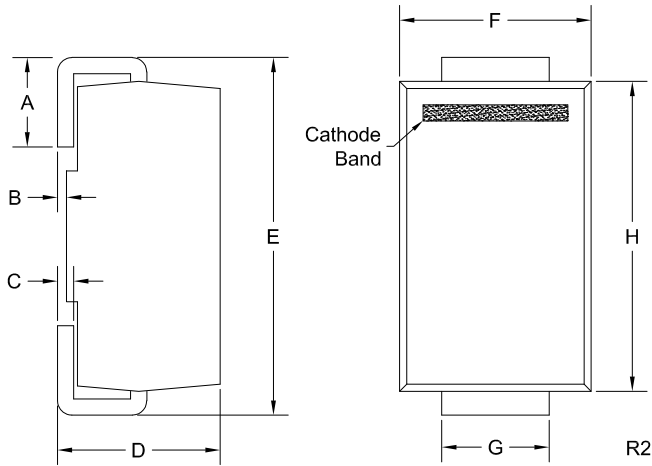
ELECTRICAL CHARACTERISTICS: ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

| 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)

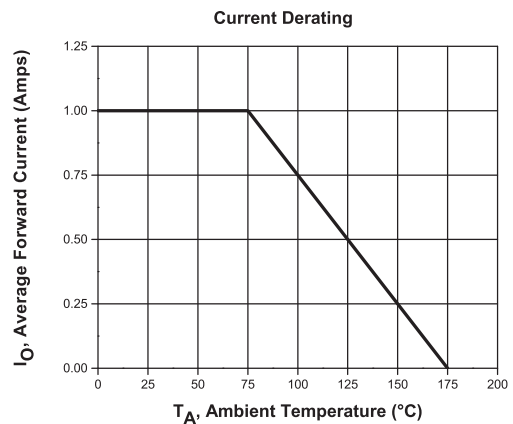
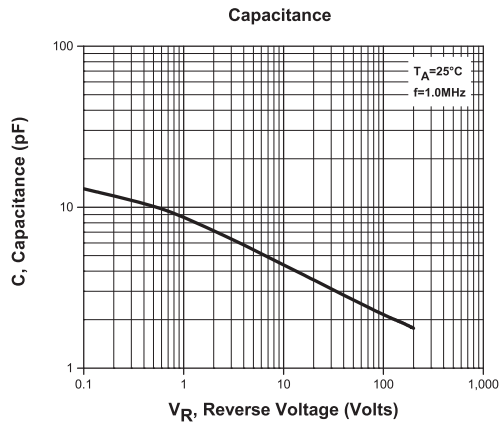
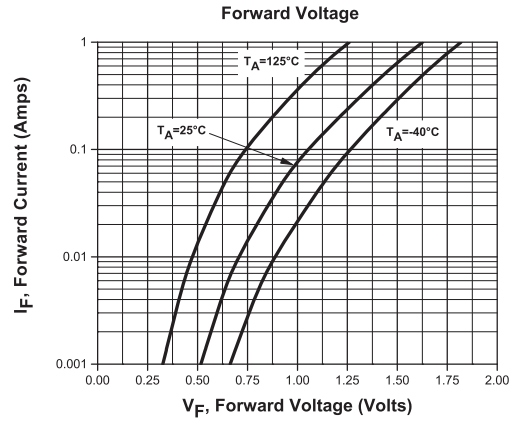
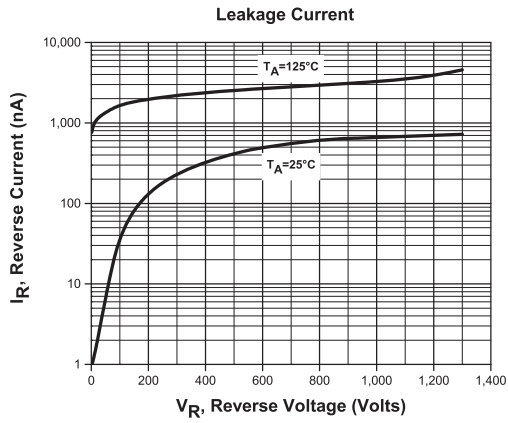
R2 (1-May 2015)

CMR1U-13M

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



TYPICAL ELECTRICAL CHARACTERISTICS



R2 (1-May 2015)

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

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.centalsemi.com

Worldwide Field Representatives:
www.centalsemi.com/wwreps

Worldwide Distributors:
www.centalsemi.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.centalsemi.com/terms