

CMR1F-02M CMR1F-08M
 CMR1F-04M CMR1F-10M
 CMR1F-06M

**SURFACE MOUNT SILICON
 FAST RECOVERY RECTIFIERS
 1.0 AMP, 200 THRU 1000 VOLT**



SMA CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMR1F-02M series 1.0 Amp surface mount silicon rectifier is a well constructed, highly reliable component designed for use in all types of commercial, industrial, entertainment, computer, and automotive applications where small size is required. The SMA case occupies 30% less board space than the SMB case.

MARKING CODE: SEE MARKING CODE TABLE ON FOLLOWING PAGE

FEATURES:

- High reliability
- Glass passivated chip
- Special selections available

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

| | SYMBOL | -02M | -04M | -06M | -08M | -10M | UNITS |
|---|-------------------|------|------|-------------|------|------|--------------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 200 | 400 | 600 | 800 | 1000 | V |
| DC Blocking Voltage | V_R | 200 | 400 | 600 | 800 | 1000 | V |
| RMS Reverse Voltage | $V_R(\text{RMS})$ | 140 | 280 | 420 | 560 | 700 | 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} | | | -65 to +150 | | | $^\circ\text{C}$ |
| Thermal Resistance | θ_{JL} | | | 30 | | | $^\circ\text{C/W}$ |

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

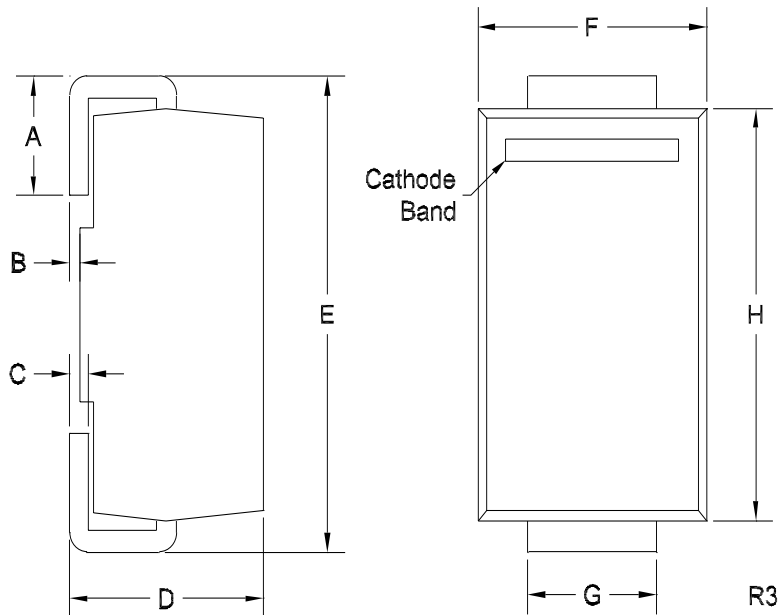
| SYMBOL | TEST CONDITIONS | MIN | MAX | UNITS |
|----------|---|-----|-----|---------------|
| I_R | $V_R=\text{Rated } V_{RRM}$ | | 5.0 | μA |
| I_R | $V_R=\text{Rated } V_{RRM}, T_A=125^\circ\text{C}$ | | 200 | μA |
| V_F | $I_F=1.0\text{A}$ | | 1.3 | V |
| C_J | $V_R=0, f=1.0\text{MHz}$ | | 35 | pF |
| t_{rr} | $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$ (CMR1F-02M, -04M) | | 150 | ns |
| t_{rr} | $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$ (CMR1F-06M) | | 250 | ns |
| t_{rr} | $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$ (CMR1F-08M, -10M) | | 500 | ns |

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SMA CASE - MECHANICAL OUTLINE



| DEVICE | MARKING CODE |
|-----------|--------------|
| CMR1F-02M | CF02M |
| CMR1F-04M | CF04M |
| CMR1F-06M | CF06M |
| CMR1F-08M | CF08M |
| CMR1F-10M | CF10M |

| 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)

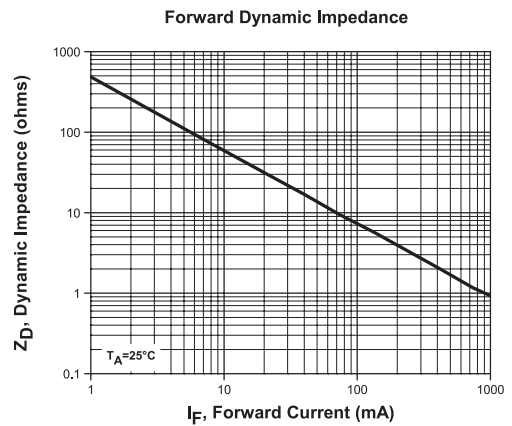
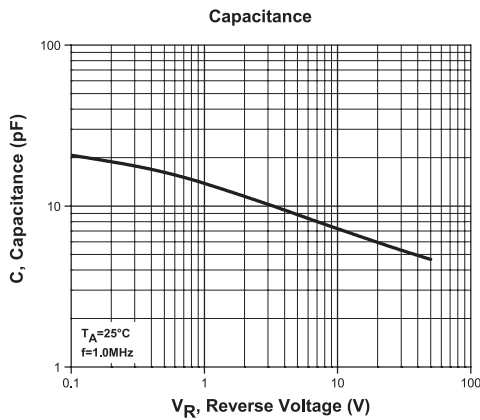
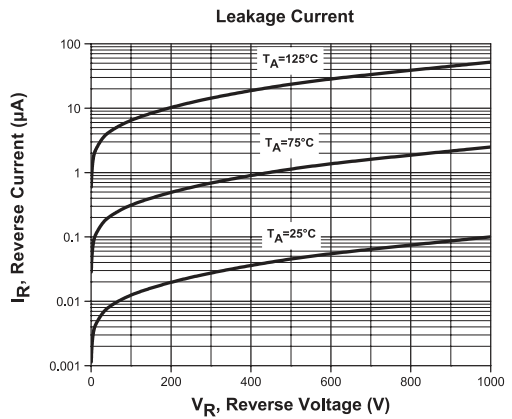
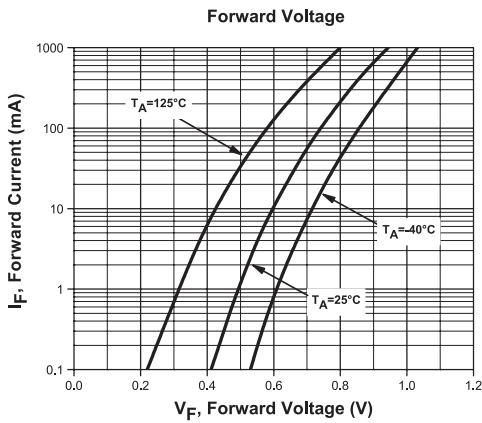
R5 (02-June 2023)

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TYPICAL ELECTRICAL CHARACTERISTICS

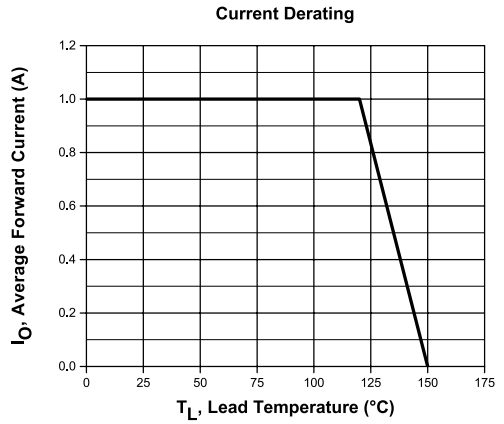
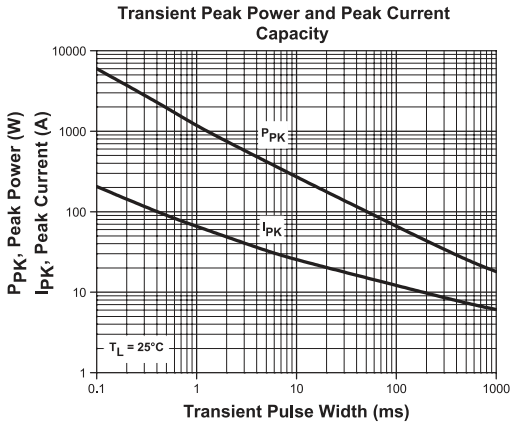


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TYPICAL ELECTRICAL CHARACTERISTICS



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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