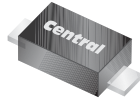


**CMMR1 SERIES**

**SURFACE MOUNT SILICON  
GENERAL PURPOSE RECTIFIERS  
1 AMP, 200 THRU 1000 VOLT**

**SOD-123F CASE**[www.centrasemi.com](http://www.centrasemi.com)**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMMR1 Series of High Current Density Rectifiers, in a SOD-123F surface mount package are designed for all types of commercial, industrial computer and automotive applications.

**MARKING CODE: SEE MARKING CODE TABLE  
ON FOLLOWING PAGE**

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

|                                                      | SYMBOL         | CMMR1-02 | CMMR1-04    | CMMR1-06 | CMMR1-10 | UNITS                |
|------------------------------------------------------|----------------|----------|-------------|----------|----------|----------------------|
| Peak Repetitive Reverse Voltage                      | $V_{RRM}$      | 200      | 400         | 600      | 1000     | V                    |
| DC Blocking Voltage                                  | $V_R$          | 200      | 400         | 600      | 1000     | V                    |
| RMS Reverse Voltage                                  | $V_{R(RMS)}$   | 140      | 280         | 420      | 700      | V                    |
| Average Forward Current ( $T_L=75^{\circ}\text{C}$ ) | $I_O$          |          |             | 1.0      |          | A                    |
| Peak Forward Surge Current (8.3ms)                   | $I_{FSM}$      |          |             | 30       |          | A                    |
| Operating and Storage<br>Junction Temperature        | $T_J, T_{stg}$ |          | -65 to +150 |          |          | $^{\circ}\text{C}$   |
| Thermal resistance (Note 1)                          | $\theta_{JA}$  |          | 180         |          |          | $^{\circ}\text{C/W}$ |
| Thermal resistance (Note 2)                          | $\theta_{JA}$  |          | 65          |          |          | $^{\circ}\text{C/W}$ |

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

| SYMBOL | TEST CONDITIONS                                      | TYP | MAX | UNITS         |
|--------|------------------------------------------------------|-----|-----|---------------|
| $I_R$  | $V_R=\text{Rated } V_{RRM}$                          |     | 10  | $\mu\text{A}$ |
| $I_R$  | $V_R=\text{Rated } V_{RRM}, T_A=125^{\circ}\text{C}$ |     | 50  | $\mu\text{A}$ |
| $V_F$  | $I_F=1.0\text{A}$                                    |     | 1.1 | V             |
| $C_J$  | $V_R=4.0\text{V}, f=1.0\text{MHz}$                   | 6.0 |     | pF            |

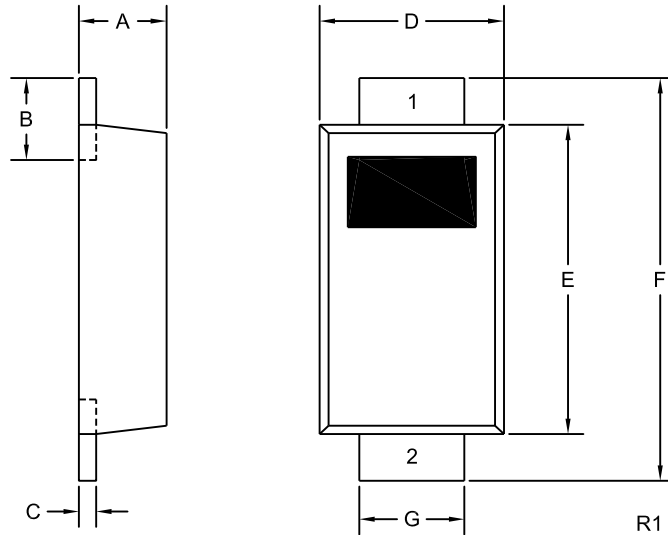
Notes: (1) FR-4 Epoxy PCB with copper mounting pad area of  $2.2\text{mm}^2$   
(2) FR-4 Epoxy PCB with copper mounting pad area of  $36\text{mm}^2$

# CMMR1 SERIES

**SURFACE MOUNT SILICON  
GENERAL PURPOSE RECTIFIERS  
1 AMP, 200 THRU 1000 VOLT**



## SOD-123F CASE - MECHANICAL OUTLINE



| DEVICE   | MARKING CODE |
|----------|--------------|
| CMMR1-02 | C02F         |
| CMMR1-04 | C04F         |
| CMMR1-06 | C06F         |
| CMMR1-10 | C10F         |

### LEAD CODE:

- 1) Cathode
- 2) Anode

| DIMENSIONS |        |       |             |      |
|------------|--------|-------|-------------|------|
| SYMBOL     | INCHES |       | MILLIMETERS |      |
|            | MIN    | MAX   | MIN         | MAX  |
| A          | 0.035  | 0.043 | 0.88        | 1.08 |
| B          | 0.020  | 0.031 | 0.50        | 0.80 |
| C          | 0.004  | 0.008 | 0.10        | 0.20 |
| D          | 0.065  | 0.077 | 1.65        | 1.95 |
| E          | 0.104  | 0.116 | 2.65        | 2.95 |
| F          | 0.140  | 0.156 | 3.55        | 3.95 |
| G          | 0.030  | 0.041 | 0.75        | 1.05 |

SOD-123F (REV:R1)

R3 (29-September 2014)

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### 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

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> 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

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