CMR2-04MFL CMR2-08MFL CMR2-06MFL CMR2-10MFL

SURFACE MOUNT SILICON GENERAL PURPOSE RECTIFIERS 2.0 AMP, 400 THRU 1000 VOLT



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# **DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMR2-04MFL series 2.0 Amp surface mount silicon rectifier, in the low profile SMAFL case, is designed for use in all types of commercial, industrial, entertainment, computer, and automotive applications where small size is required.

MARKING CODE: SEE MARKING CODE TABLE ON FOLLOWING PAGE



### **FEATURES:**

- High surge current capability (70A)
- Low leakage current (1.0μA)
- Low package profile (1.0mm)
- Flammability classification UL94V-0

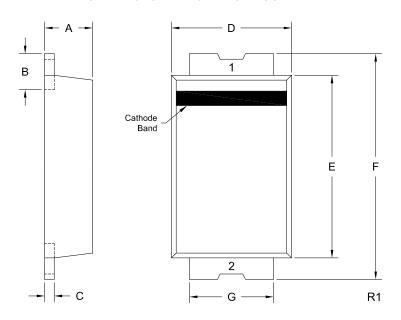
| MAXIMUM R   | noted) CMR2  |                                   |               |               |        |        |       |  |  |
|---|--|-----------------------------------|---------------|---------------|--------|--------|-------|--|--|
|   | · A  |                                   | <u>-04MFL</u> | <u>-06MFL</u> | -08MFL | -10MFL | UNITS |  |  |
| Peak Repetitive Reverse Voltage   |  | $V_{RRM}$                         | 400           | 600           | 800    | 1000   | V     |  |  |
| DC Blocking Voltage   |  | $v_R$                             | 400           | 600           | 800    | 1000   | V     |  |  |
| RMS Reverse Voltage   |  | V <sub>R</sub> (RMS)              | 280           | 420           | 560    | 700    | V     |  |  |
| Average Forward Current (T <sub>L</sub> =120°C)                           |  | IO                                | 2.0           |               |        |        | Α     |  |  |
| Peak Forward Surge Current, tp=8.3ms                                      |  | IFSM                              | 70            |               |        |        | Α     |  |  |
| Operating and Storage Junction Temperature                                |  | T <sub>J</sub> , T <sub>stg</sub> | -65 to +150   |               |        |        | °C    |  |  |
| Thermal Resistance  |  | $\Theta_{\sf JL}$                 | 30            |               |        | °C/W   |       |  |  |
| ELECTRICAL CHARACTERISTICS: (T <sub>A</sub> =25°C unless otherwise noted) |  |                                   |               |               |        |        |       |  |  |
| SYMBOL  | TEST CONDITIONS  |                                   | TY            | /P            |        | AX     | UNITS |  |  |
| $I_{R}$   | V <sub>R</sub> =Rated V <sub>RRM</sub>                         |                                   |               |               | 1      | .0     | μΑ    |  |  |
| $I_{R}$   | V <sub>R</sub> =Rated V <sub>RRM</sub> , T <sub>A</sub> =125°C |                                   |               |               | 5      | 0      | μΑ    |  |  |
| $V_{F}$   | I <sub>F</sub> =2.0A   |                                   |               |               | 1      | .1     | V     |  |  |
| CJ  | V <sub>R</sub> =4.0V, f=1.0MHz                                 |                                   | 1             | 8             |        |        | pF    |  |  |

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# **SMAFL CASE - MECHANICAL OUTLINE**



| DEVICE     | MARKING CODE |  |  |  |
|------------|--------------|--|--|--|
| CMR2-04MFL | C204MFL      |  |  |  |
| CMR2-06MFL | C206MFL      |  |  |  |
| CMR2-08MFL | C208MFL      |  |  |  |
| CMR2-10MFL | C210MFL      |  |  |  |

| DIMENSIONS |        |       |             |      |  |  |  |  |  |
|------------|--------|-------|-------------|------|--|--|--|--|--|
|            | INCHES |       | MILLIMETERS |      |  |  |  |  |  |
| SYMBOL     | MIN    | MAX   | MIN         | MAX  |  |  |  |  |  |
| Α          | 0.035  | 0.044 | 0.90        | 1.10 |  |  |  |  |  |
| В          | 0.021  | 0.038 | 0.55        | 0.95 |  |  |  |  |  |
| С          | 0.006  | 0.010 | 0.15        | 0.25 |  |  |  |  |  |
| D          | 0.094  | 0.103 | 2.40        | 2.60 |  |  |  |  |  |
| E          | 0.145  | 0.154 | 3.70        | 3.90 |  |  |  |  |  |
| F          | 0.177  | 0.193 | 4.50        | 4.90 |  |  |  |  |  |
| G          | 0.065  | 0.073 | 1.65        | 1.85 |  |  |  |  |  |

SMAFL (REV: R1)

# LEAD CODE:

- 1) Cathode
- 2) Anode

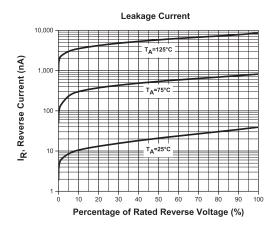
R2 (28-June 2021)

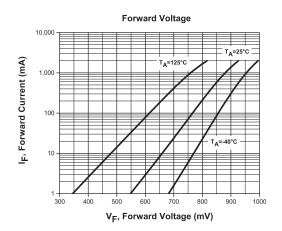
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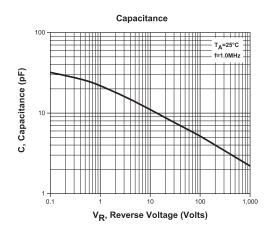
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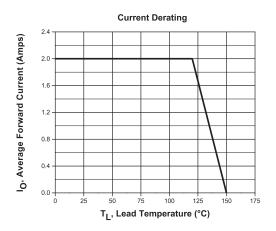


# TYPICAL ELECTRICAL CHARACTERISTICS









# **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 guick 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

### 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**

### 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.centralsemi.com

Worldwide Field Representatives: www.centralsemi.com/wwreps

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