

SURFACE MOUNT SILICON GENERAL PURPOSE RECTIFIERS 3.0 AMP, 200 THRU 1100 VOLT





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# DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMR3-02 series 3.0 Amp surface mount silicon rectifiers are highly reliable components designed for use in all types of commercial, industrial, entertainment, computer, and automotive applications. To order devices on 16mm Tape and Reel (3000/13" Reel), add TR13 suffix to part number.

# MARKING CODE: SEE MARKING CODE TABLE ON FOLLOWING PAGE

#### FEATURES:

- · High reliability
- Glass passivated chip
- Special selections available
- "C" bend construction provides strain
- relief when mounted on PC board

#### MAXIMUM RATINGS: (T<sub>A</sub>=25°C unless otherwise noted)

|  | ,                   | CMR3       | CMR3 | CMR3       | CMR3 | CMR3       | CMR3       |       |
|--|---------------------|------------|------|------------|------|------------|------------|-------|
|  | SYMBOL              | <u>-02</u> | -04  | <u>-06</u> | -08  | <u>-10</u> | <u>-11</u> | UNITS |
| Peak Repetitive Reverse Voltage                | V <sub>RRM</sub>    | 200        | 400  | 600        | 800  | 1000       | 1100       | V     |
| DC Blocking Voltage                            | VR                  | 200        | 400  | 600        | 800  | 1000       | 1100       | V     |
| RMS Reverse Voltage                            | V <sub>R(RMS)</sub> | 140        | 280  | 420        | 560  | 700        | 770        | V     |
| Average Forward Current (T <sub>A</sub> =75°C) | IO                  |            |      | 3          | .0   |            |            | А     |
| Peak Forward Surge Current, tp=8.3ms           | IFSM                |            |      | 20         | 00   |            |            | А     |
| Operating and Storage Junction Temperature     | TJ, Tstg            |            |      | -65 to     | +175 |            |            | °C    |
| Thermal Resistance                             | ΘJL                 |            |      | 1          | 0    |            |            | °C/W  |

**ELECTRICAL CHARACTERISTICS:** (T<sub>A</sub>=25°C unless otherwise noted)

| SYMBOL         | TEST CONDITIONS  | MIN | MAX | UNITS |
|----------------|--|-----|-----|-------|
| IR             | V <sub>R</sub> =Rated V <sub>RRM</sub>                         |     | 5.0 | μΑ    |
| IR             | V <sub>R</sub> =Rated V <sub>RRM</sub> , T <sub>A</sub> =125°C |     | 250 | μΑ    |
| V <sub>F</sub> | I <sub>F</sub> =3.0A   |     | 1.2 | V     |

R5 (11-September 2013)

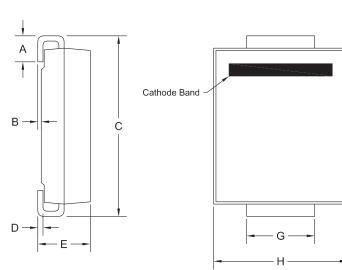


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R2

CMR3-02 CMR3-08 CMR3-04 CMR3-10 CMR3-06 CMR3-11

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### SMC CASE - MECHANICAL OUTLINE

| DEVICE  | MARKING CODE |  |  |
|---------|--------------|--|--|
| CMR3-02 | C302         |  |  |
| CMR3-04 | C304         |  |  |
| CMR3-06 | C306         |  |  |
| CMR3-08 | C308         |  |  |
| CMR3-10 | C310         |  |  |
| CMR3-11 | C311         |  |  |

| DIMENSIONS    |       |       |             |      |  |
|---------------|-------|-------|-------------|------|--|
|               | INC   | HES   | MILLIMETERS |      |  |
| SYMBOL        | MIN   | MAX   | MIN         | MAX  |  |
| A             | 0.030 | 0.060 | 0.76        | 1.52 |  |
| В             | 0.002 | 0.008 | 0.05        | 0.20 |  |
| С             | 0.305 | 0.320 | 7.75        | 8.13 |  |
| D             | 0.006 | 0.012 | 0.15        | 0.31 |  |
| E             | 0.079 | 0.103 | 2.00        | 2.62 |  |
| F             | 0.260 | 0.280 | 6.60        | 7.11 |  |
| G             | 0.108 | 0.128 | 2.75        | 3.25 |  |
| Н             | 0.220 | 0.245 | 5.59        | 6.22 |  |
| SMC (REV: R2) |       |       |             |      |  |

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# **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

#### **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

ss your design challenges.

· Custom product packing

- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- · Application and design sample kits

Custom bar coding for shipments

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).
- 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**

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Authorized Distributor

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Central Semiconductor: CMR3-10 TR13 TIN/LEAD