CMSH3-20MA CMSH3-40MA CMSH3-60MA CMSH3-100MA

SURFACE MOUNT SCHOTTKY BARRIER SILICON RECTIFIER 3.0 AMP, 20 THRU 100 VOLTS





#### **FEATURES:**

- HIGH CURRENT CAPABILITY
- FLAMMABILITY CLASSIFICATION UL94V-0
- HIGH DENSITY, SUPERmini™ DEVICE
- SUPERIOR LOT TO LOT CONSISTENCY
- LOW COST
- "C" BEND CONSTRUCTION PROVIDES STRAIN RELIEF WHEN MOUNTED ON PC BOARD
- HIGH RELIABILITY

### **DESCRIPTION:**

The CENTRAL SEMICONDUCTOR 3.0 Amp Surface Mount Silicon Schottky Rectifier is a high quality, well constructed, highly reliable component designed for use in all types of commercial, industrial, entertainment, computer, and automotive applications. To order devices on 12mm Tape and Reel (5000/13" Reel), add TR13 suffix to part number.

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

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

|  | SYMBOL                 | CMSH3<br><u>-20MA</u> | CMSH3<br>-40MA |          | CMSH3<br>-60MA | CMSH3<br>-100MA | UNITS |
|--|------------------------|-----------------------|----------------|----------|----------------|-----------------|-------|
| Peak Repetitive Reverse Voltage                | $V_{RRM}$              | 20                    | 40             |          | 60             | 100             | V     |
| DC Blocking Voltage                            | $V_{R}$                | 20                    | 40             |          | 60             | 100             | V     |
| RMS Reverse Voltage                            | V <sub>R(RMS)</sub>    | 14                    | 28             |          | 42             | 71              | V     |
| Average Forward Current (T <sub>L</sub> =75°C) | IO                     |                       |                | 3.0      |                |                 | Α     |
| Peak Forward Surge Current (8.3ms)             | I <sub>FSM</sub>       |                       |                | 80       |                |                 | Α     |
| Operating and Storage                          |                        |                       |                |          |                |                 |       |
| Junction Temperature                           | $T_J$ , $T_{stg}$      |                       | -6             | 5 to +15 | 0              |                 | °C    |
| Thermal Resistance                             | $\Theta_{\mathrm{JI}}$ |                       |                | 30       |                |                 | °C/W  |

### ELECTRICAL CHARACTERISTICS: (TA=25°C unless otherwise noted)

| SYMBOL  | TEST CONDITIONS  | MIN | TYP | MAX  | UNITS |
|---------|--|-----|-----|------|-------|
| $I_{R}$ | $V_R$ =Rated $V_{RRM}$   |     |     | 500  | μΑ    |
| $I_{R}$ | V <sub>R</sub> =Rated V <sub>RRM</sub> , T <sub>A</sub> =100°C |     |     | 20   | mA    |
| $V_{F}$ | $I_F$ =3.0A (CMSH3-20MA and CMSH3-40MA)                        |     |     | 0.50 | V     |
| $V_{F}$ | I <sub>F</sub> =3.0A (CMSH3-60MA)                              |     |     | 0.70 | V     |
| $V_{F}$ | I <sub>F</sub> =3.0A (CMSH3-100MA)                             |     |     | 0.85 | V     |
| CJ      | V <sub>R</sub> =4.0V, f=1.0MHz                                 |     | 280 |      | pF    |

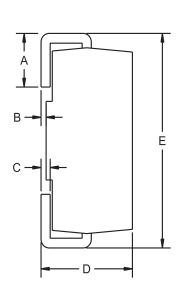
R1 (14-November 2002)

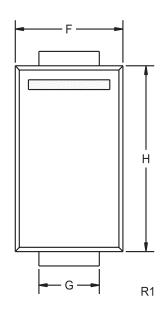


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# **SMA CASE - MECHANICAL OUTLINE**





# **MARKING CODES:**

| DEVICE      | MARKING CODE |
|-------------|--------------|
| CMSH3-20MA  | CS320MA      |
| CMSH3-40MA  | CS340MA      |
| CMSH3-60MA  | CS360MA      |
| CMSH3-100MA | CS3100MA     |

| DIMENSIONS |        |       |             |      |  |
|------------|--------|-------|-------------|------|--|
|            | INCHES |       | MILLIMETERS |      |  |
| SYMBOL     | MIN    | MAX   | MIN         | MAX  |  |
| Α          | 0.030  | 0.060 | 0.76        | 1.52 |  |
| В          | 0.004  | 0.008 | 0.10        | 0.20 |  |
| С          | 0.006  | 0.012 | 0.15        | 0.30 |  |
| D          | 0.078  | 0.103 | 1.98        | 2.62 |  |
| Е          | 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 |  |
| Н          | 0.157  | 0.181 | 3.99        | 4.60 |  |

SMA (REV: R1)