

CMSH1-20M CMSH1-60M  
CMSH1-40M CMSH1-100M

**SURFACE MOUNT SILICON  
SCHOTTKY RECTIFIERS  
1.0 AMP, 20 THRU 100 VOLT**



**SMA CASE**



[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMSH1-20M series 1.0 Amp surface mount silicon Schottky rectifier is a well constructed, highly reliable component designed for use in all types of commercial, industrial, entertainment, computer, and automotive applications.

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

**FEATURES:**

- High reliability
- Special selections available

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

|                                                       | SYMBOL         | CMSH1<br>-20M | CMSH1<br>-40M | CMSH1<br>-60M | CMSH1<br>-100M | 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                                   | $V_{R(RMS)}$   | 14            | 28            | 42            | 70             | V                    |
| Average Forward Current ( $T_L=75^{\circ}\text{C}$ )  | $I_O$          | 1.0           | 1.0           |               |                | A                    |
| Average Forward Current ( $T_L=100^{\circ}\text{C}$ ) | $I_O$          |               |               | 1.0           | 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                                    | $\Theta_{JL}$  |               | 30            |               |                | $^{\circ}\text{C/W}$ |

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

| SYMBOL | TEST CONDITIONS                                      | TYP | MAX  | UNITS |
|--------|------------------------------------------------------|-----|------|-------|
| $I_R$  | $V_R=\text{Rated } V_{RRM}$                          |     | 0.50 | mA    |
| $I_R$  | $V_R=\text{Rated } V_{RRM}, T_A=100^{\circ}\text{C}$ |     | 10   | mA    |
| $V_F$  | $I_F=1.0\text{A}$ (CMSH1-20M, -40M)                  |     | 0.50 | V     |
| $V_F$  | $I_F=1.0\text{A}$ (CMSH1-60M)                        |     | 0.70 | V     |
| $V_F$  | $I_F=1.0\text{A}$ (CMSH1-100M)                       |     | 0.85 | V     |
| $C_J$  | $V_R=4.0\text{V}, f=1.0\text{MHz}$ (CMSH1-20M, -40M) | 100 |      | pF    |
| $C_J$  | $V_R=4.0\text{V}, f=1.0\text{MHz}$ (CMSH1-60M)       | 80  |      | pF    |
| $C_J$  | $V_R=4.0\text{V}, f=1.0\text{MHz}$ (CMSH1-100M)      | 50  |      | pF    |

R6 (6-May 2015)

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# SMA CASE - MECHANICAL OUTLINE



| DEVICE     | MARKING CODE |
|------------|--------------|
| CMSH1-20M  | CS20M        |
| CMSH1-40M  | CS40M        |
| CMSH1-60M  | CS60M        |
| CMSH1-100M | CS100M       |

| SYMBOL | INCHES |       | MILLIMETERS |      |
|--------|--------|-------|-------------|------|
|        | MIN    | MAX   | MIN         | MAX  |
| A      | 0.030  | 0.060 | 0.76        | 1.52 |
| B      | 0.004  | 0.008 | 0.10        | 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: R2)

R6 (6-May 2015)

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#### **SERVICES**

- Bonded Inventory
- Custom Electrical Screening
- Custom Electrical Characteristic Curves
- SPICE Models
- Custom Packaging
- Package Base Options
- Custom Device Development/ Multi Discrete Modules (MDM™)
- Bare Die Available for Hybrid Applications

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