

CMR2S-02  
CMR2S-04  
CMR2S-06

**SURFACE MOUNT SILICON  
SUPER FAST  
RECOVERY RECTIFIERS  
2.0 AMP, 200 THRU 600 VOLT**



**SMB CASE**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMR2S-02, CMR2S-04, and CMR2S-06 are 2.0 Amp surface mount, super fast recovery silicon rectifiers designed for use in all types of commercial, industrial, entertainment, computer, and automotive applications.

**MARKING CODES:** CMR2S-02: CSF22  
CMR2S-04: CSF24  
CMR2S-06: CSF26

**FEATURES:**

- Super fast switching speed (30ns MAX)
- High reverse voltage
- Glass passivated chip
- “C” bend construction provides strain relief when mounted on pc board

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

|                                                       | SYMBOL         | CMR2S-02 | CMR2S-04    | CMR2S-06 | UNITS                |
|-------------------------------------------------------|----------------|----------|-------------|----------|----------------------|
| Peak Repetitive Reverse Voltage                       | $V_{RRM}$      | 200      | 400         | 600      | V                    |
| DC Blocking Voltage                                   | $V_R$          | 200      | 400         | 600      | V                    |
| RMS Reverse Voltage                                   | $V_{R(RMS)}$   | 140      | 280         | 420      | V                    |
| Average Forward Current ( $T_L=110^{\circ}\text{C}$ ) | $I_O$          |          | 2.0         |          | A                    |
| Peak Forward Surge Current, $t_p=8.3\text{ms}$        | $I_{FSM}$      |          | 50          |          | A                    |
| Operating and Storage Junction Temperature            | $T_J, T_{stg}$ |          | -65 to +150 |          | $^{\circ}\text{C}$   |
| Thermal Resistance                                    | $\Theta_{JL}$  |          | 20          |          | $^{\circ}\text{C/W}$ |

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

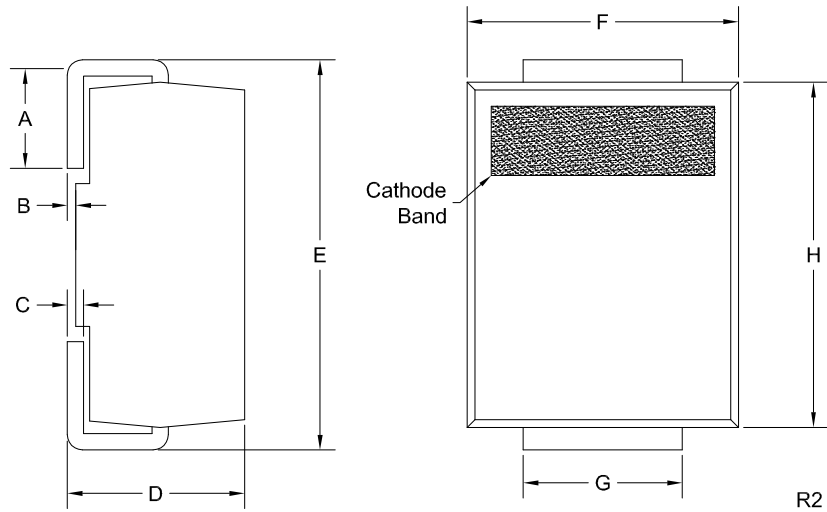
| SYMBOL   | TEST CONDITIONS                                         | TYP  | MAX  | UNITS         |
|----------|---------------------------------------------------------|------|------|---------------|
| $I_R$    | $V_R=\text{Rated } V_{RRM}$                             |      | 1.0  | $\mu\text{A}$ |
| $I_R$    | $V_R=\text{Rated } V_{RRM}, T_A=100^{\circ}\text{C}$    |      | 150  | $\mu\text{A}$ |
| $V_F$    | $I_F=2.0\text{A}$ (CMR2S-02)                            | 0.88 | 0.95 | V             |
| $V_F$    | $I_F=2.0\text{A}$ (CMR2S-04)                            | 1.10 | 1.25 | V             |
| $V_F$    | $I_F=2.0\text{A}$ (CMR2S-06)                            | 1.50 | 1.70 | V             |
| $t_{rr}$ | $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$ | 23   | 30   | ns            |
| $C_J$    | $V_R=4.0\text{V}, f=1.0\text{MHz}$ (CMR2S-02)           | 25   |      | pF            |
| $C_J$    | $V_R=4.0\text{V}, f=1.0\text{MHz}$ (CMR2S-04)           | 17   |      | pF            |
| $C_J$    | $V_R=4.0\text{V}, f=1.0\text{MHz}$ (CMR2S-06)           | 13   |      | pF            |

R4 (4-September 2018)

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**SMB CASE - MECHANICAL OUTLINE**



| DEVICE   | MARKING CODE |
|----------|--------------|
| CMR2S-02 | CSF22        |
| CMR2S-04 | CSF24        |
| CMR2S-06 | CSF26        |

| SYMBOL | INCHES |       | MILLIMETERS |      |
|--------|--------|-------|-------------|------|
|        | MIN    | MAX   | MIN         | MAX  |
| A      | 0.030  | 0.060 | 0.76        | 1.52 |
| B      | 0.000  | 0.008 | 0.00        | 0.20 |
| C      | 0.006  | 0.012 | 0.15        | 0.30 |
| D      | 0.086  | 0.096 | 2.18        | 2.44 |
| E      | 0.200  | 0.220 | 5.08        | 5.59 |
| F      | 0.130  | 0.150 | 3.30        | 3.81 |
| G      | 0.077  | 0.083 | 1.96        | 2.11 |
| H      | 0.160  | 0.191 | 4.06        | 4.85 |

SMB (REV: R2)

R4 (4-September 2018)