

CMR2S-02
 CMR2S-04
 CMR2S-06

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



www.centrasemi.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. To order devices on 12mm Tape and Reel (3000/13" Reel), add TR13 suffix to part number.



SMB CASE

**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 | θ_{JL} | | 20 | | $^{\circ}\text{C/W}$ |

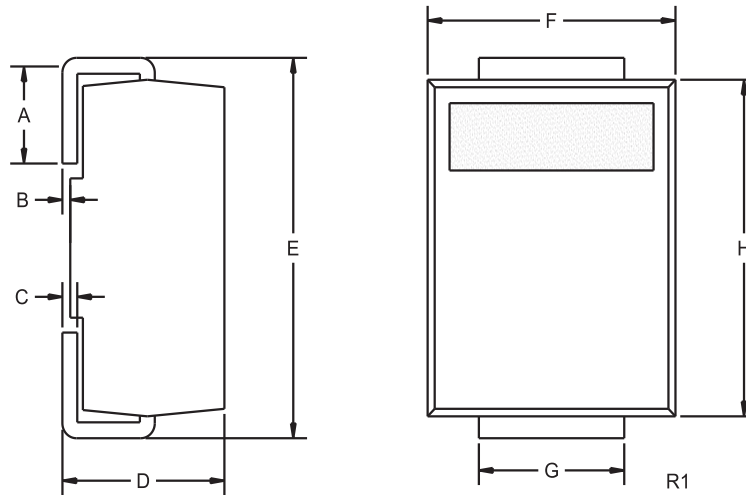
ELECTRICAL CHARACTERISTICS: ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

| SYMBOL | TEST CONDITIONS | TYP | MAX | UNITS |
|----------|---|------|------|---------------|
| I_R | $V_R=\text{Rated } V_{RRM}$ | | 1.0 | μA |
| I_R | $V_R=\text{Rated } V_{RRM}, T_A=100^{\circ}\text{C}$ | | 150 | μA |
| 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 |

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SMB CASE - MECHANICAL OUTLINE



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

| SYMBOL | DIMENSIONS | | | |
|--------|------------|-------|-------------|------|
| | 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 | 0.086 | 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 | 0.180 | 4.06 | 4.57 |

SMB (REV: R1)

R3 (13-March 2013)