

CBR1F-D020S SERIES

**SURFACE MOUNT
1 AMP FAST RECOVERY
SILICON BRIDGE RECTIFIER**

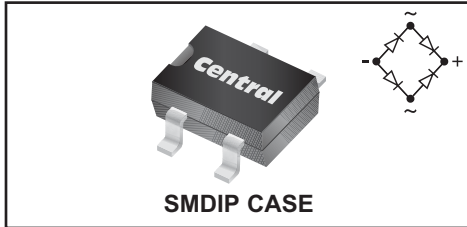


www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CBR1F-D020S Series types are fast recovery, full wave bridge rectifiers mounted in a durable epoxy surface mount molded case, utilizing glass passivated chips.

MARKING: FULL PART NUMBER



MAXIMUM RATINGS:

($T_A=25^\circ\text{C}$ unless otherwise specified)

| | SYMBOL | CBR1F-D020S | CBR1F-D040S | CBR1F-D060S | CBR1F-D080S | CBR1F-D100S | UNITS |
|--|----------------|-------------|-------------|-------------|-------------|-------------|----------------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 200 | 400 | 600 | 800 | 1000 | V |
| DC Blocking Voltage | V_R | 200 | 400 | 600 | 800 | 1000 | V |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 140 | 280 | 420 | 560 | 700 | V |
| Average Forward Current ($T_A=40^\circ\text{C}$) | I_O | | | 1.0 | | | A |
| Peak Forward Surge Current | I_{FSM} | | | 50 | | | A |
| Rating for Fusing ($t<8.35\text{ms}$) | I^2t | | | 3.74 | | | A^2s |
| Operating and Storage Junction Temperature | T_J, T_{stg} | | | -65 to +150 | | | $^\circ\text{C}$ |

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

| SYMBOL | TEST CONDITIONS | TYP | MAX | UNITS |
|----------|---|-----|-----|---------------|
| I_R | $V_R=\text{Rated } V_{RRM}$ | | 5.0 | μA |
| I_R | $V_R=\text{Rated } V_{RRM}, T_A=125^\circ\text{C}$ | | 0.5 | mA |
| V_F | $I_F=1.0\text{A}$ | | 1.3 | V |
| t_{rr} | $I_F=0.5\text{A}, I_R=1.0\text{A}, \text{Rec. to } 0.25\text{A (200V, 300V, 400V)}$ | | 200 | ns |
| t_{rr} | $I_F=0.5\text{A}, I_R=1.0\text{A}, \text{Rec. to } 0.25\text{A (600V)}$ | | 300 | ns |
| t_{rr} | $I_F=0.5\text{A}, I_R=1.0\text{A}, \text{Rec. to } 0.25\text{A (800V, 1000V)}$ | | 500 | ns |
| C_J | $V_R=4.0\text{V}, f=1.0\text{MHz}$ | 25 | | pF |

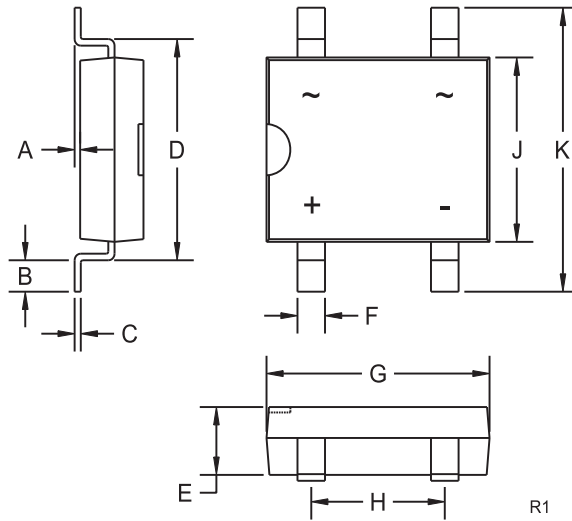
R1 (4-January 2010)

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SMDIP CASE - MECHANICAL OUTLINE



| SYMBOL | INCHES | | MILLIMETERS | |
|--------|--------|-------|-------------|-------|
| | MIN | MAX | MIN | MAX |
| A | 0.004 | 0.008 | 0.10 | 0.20 |
| B | 0.040 | 0.060 | 1.02 | 1.52 |
| C | 0.009 | | 0.23 | |
| D | 0.290 | 0.310 | 7.37 | 7.87 |
| E | 0.086 | 0.098 | 2.18 | 2.49 |
| F | 0.038 | 0.042 | 0.97 | 1.07 |
| G | 0.316 | 0.335 | 8.03 | 8.51 |
| H | 0.195 | 0.205 | 4.95 | 5.21 |
| J | 0.245 | 0.255 | 6.22 | 6.48 |
| K | 0.360 | 0.410 | 9.14 | 10.41 |

SMDIP (REV: R1)

MARKING: FULL PART NUMBER

R1 (4-January 2010)