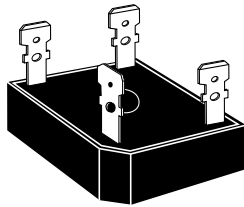


CBR50-020P SERIES
50 AMP
SILICON BRIDGE RECTIFIER
200 thru 1000 VOLTS



CASE FP

CentralTM

Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CBR50-020P series types are silicon single phase full wave bridge rectifiers designed for general purpose applications. The molded epoxy case has a built in metal baseplate for heat sink mounting.

MARKING CODE: FULL PART NUMBER

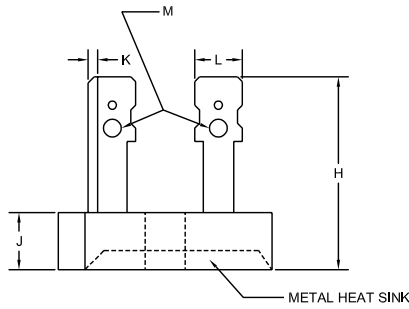
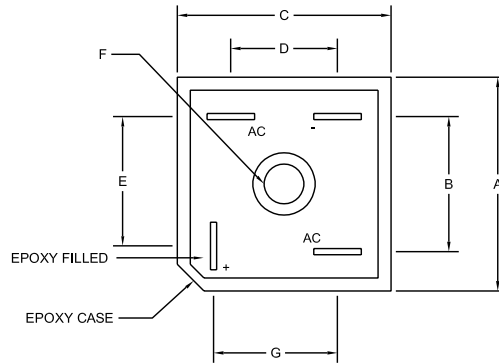
MAXIMUM RATINGS ($T_A=25^\circ\text{C}$)

| | SYMBOL | CBR50- <u>020P</u> | CBR50- <u>040P</u> | CBR50- <u>060P</u> | CBR50- <u>080P</u> | CBR50- <u>100P</u> | 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 ($T_C=55^\circ\text{C}$) | I_O | | | 50 | | | A |
| Peak Forward Surge Current | I_{FSM} | | | 400 | | | A |
| Operating and Storage Junction Temperature | T_J, T_{stg} | | | -65 to +150 | | | $^\circ\text{C}$ |
| Thermal Resistance | θ_{JC} | | | 1.5 | | | $^\circ\text{C/W}$ |
| RMS Isolation Voltage (case to lead) | V_{iso} | | | 2500 | | | V_{ac} |

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

| SYMBOL | TEST CONDITIONS | TYP | MAX | UNITS |
|--------|--|-----|-----|---------------|
| I_R | $V_R=\text{Rated } V_{RRM}, T_C=25^\circ\text{C}$ | | 5.0 | μA |
| I_R | $V_R=\text{Rated } V_{RRM}, T_C=125^\circ\text{C}$ | | 500 | μA |
| V_F | $I_F=25\text{A}$ | | 1.1 | V |
| C_J | $V_R=4.0\text{V}, f=1.0\text{MHz}$ | 300 | | pF |

CASE FP - MECHANICAL OUTLINE



R1

**MARKING CODE:
FULL PART NUMBER**

| SYMBOL | DIMENSIONS | | | |
|----------|------------|-------|-------------|-------|
| | INCHES | | MILLIMETERS | |
| | MIN | MAX | MIN | MAX |
| A | 1.115 | 1.135 | 28.32 | 28.83 |
| B | 0.692 | 0.732 | 17.58 | 18.59 |
| C | 1.115 | 1.135 | 28.32 | 28.83 |
| D | 0.542 | 0.582 | 13.77 | 14.78 |
| E | 0.632 | 0.672 | 16.05 | 17.07 |
| F (DIA.) | 0.200 | 0.220 | 5.08 | 5.59 |
| G | 0.632 | 0.672 | 16.05 | 17.07 |
| H | 0.740 | 0.840 | 18.80 | 21.34 |
| J | 0.290 | 0.310 | 7.37 | 7.87 |
| K | 0.030 | 0.034 | 0.76 | 0.86 |
| L | | 0.250 | | 6.35 |
| M (DIA.) | | 0.940 | | 2.39 |

CASE FP (REV:R1)

R0 (31-August 2004)