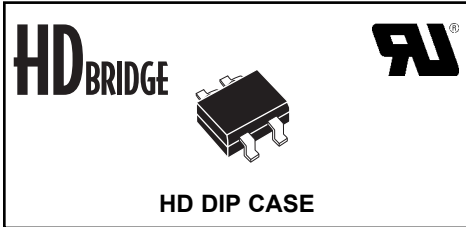


**CBRHD-01**  
**HIGH DENSITY**  
**0.8 AMP DUAL IN LINE**  
**BRIDGE RECTIFIER**



• This series is UL listed, UL file number E130224

# Central<sup>TM</sup>

## Semiconductor Corp.

**FEATURES:**

- Truly efficient use of board space, requires only 42mm<sup>2</sup> of board space vs. 120mm<sup>2</sup> of board space for industry standard 1.0 Amp surface mount bridge rectifier.
- 50% higher density (amps/mm<sup>2</sup>) than the industry standard 1.0 Amp surface mount bridge rectifier.
- Glass passivated chips for high reliability.

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CBRHD-01 is a silicon full wave bridge rectifier mounted in a durable epoxy surface mount molded case, utilizing glass passivated chips.

**MARKING CODE: CBRHD-01: CBD1**

**MAXIMUM RATINGS:** (T<sub>A</sub>=25°C unless otherwise noted)

|   | SYMBOL                            |             | UNITS |
|---|-----------------------------------|-------------|-------|
| Peak Repetitive Reverse Voltage                   | V <sub>RRM</sub>                  | 100         | V     |
| DC Blocking Voltage                               | V <sub>R</sub>                    | 100         | V     |
| RMS Reverse Voltage                               | V <sub>R(RMS)</sub>               | 70          | V     |
| Average Forward Current (T <sub>A</sub> =40°C)(1) | I <sub>O</sub>                    | 0.5         | A     |
| Average Forward Current (T <sub>A</sub> =40°C)(2) | I <sub>O</sub>                    | 0.8         | A     |
| Peak Forward Surge Current                        | I <sub>FSM</sub>                  | 30          | A     |
| Operating and Storage                             |                                   |             |       |
| Junction Temperature                              | T <sub>J</sub> , T <sub>stg</sub> | -65 to +150 | °C    |
| Thermal Resistance (3)                            | θ <sub>JA</sub>                   | 85          | °C/W  |

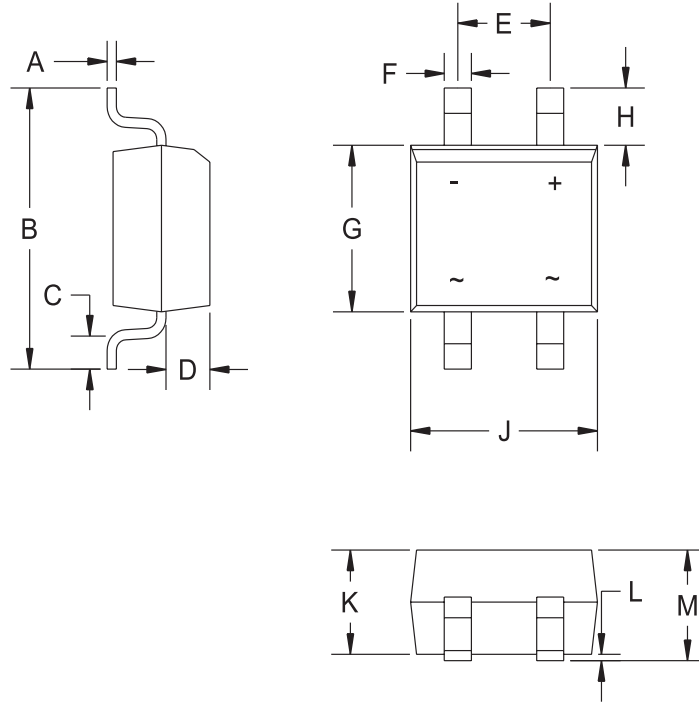
**ELECTRICAL CHARACTERISTICS PER DIODE:** (T<sub>A</sub>=25°C unless otherwise noted)

| SYMBOL         | TEST CONDITIONS                              | MIN | TYP | MAX | UNITS |
|----------------|--|-----|-----|-----|-------|
| I <sub>R</sub> | V <sub>R</sub> = 100V                        |     |     | 5.0 | μA    |
| I <sub>R</sub> | V <sub>R</sub> = 100V, T <sub>A</sub> =125°C |     |     | 500 | μA    |
| V <sub>F</sub> | I <sub>F</sub> =400mA                        |     |     | 1.0 | V     |
| C <sub>J</sub> | V <sub>R</sub> =4.0V, f=1.0MHz               |     | 9.0 |     | pF    |

- (1) Mounted on a Glass-Epoxy P.C.B.  
 (2) Mounted on a Ceramic P.C.B.  
 (3) Mounted on P.C.B. with 0.5" x 0.5" copper pads.

R0 (11-February 2005)

**HD DIP CASE - MECHANICAL OUTLINE**



R1

**MARKING CODE:  
CBRHD01: CBD1**

| SYMBOL | DIMENSIONS |       |             |      |
|--------|------------|-------|-------------|------|
|        | INCHES     |       | MILLIMETERS |      |
|        | MIN        | MAX   | MIN         | MAX  |
| A      | 0.006      | 0.014 | 0.15        | 0.35 |
| B      | -          | 0.276 | -           | 7.00 |
| C      | 0.028      | 0.043 | 0.70        | 1.10 |
| D      | 0.035      | 0.051 | 0.90        | 1.30 |
| E      | 0.091      | 0.106 | 2.30        | 2.70 |
| F      | 0.020      | 0.031 | 0.50        | 0.80 |
| G      | 0.142      | 0.157 | 3.60        | 4.00 |
| H      | 0.051      | 0.067 | 1.30        | 1.70 |
| J      | 0.177      | 0.193 | 4.50        | 4.90 |
| K      | 0.091      | 0.106 | 2.30        | 2.70 |
| L      | -          | 0.008 | -           | 0.20 |
| M      | -          | 0.118 | -           | 3.00 |

HD DIP (REV: R1)

R0 (11-February 2005)