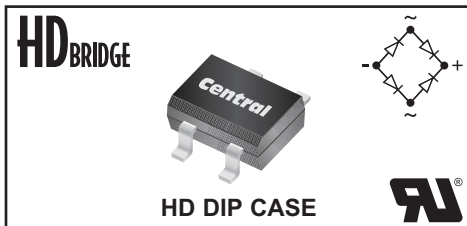




## CBRHD SERIES

**SURFACE MOUNT  
HIGH DENSITY  
0.5 AMP  
SILICON BRIDGE RECTIFIER**



- This series is UL listed: file number E130224
- Device is **Halogen Free** by design

### FEATURES:

- Efficient use of board space: requires only 42mm<sup>2</sup> of board space vs. 120mm<sup>2</sup> of board space needed 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.



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

### DESCRIPTION:

The CENTRAL SEMICONDUCTOR CBRHD series types are silicon full wave bridge rectifiers mounted in a durable epoxy surface mount molded case, utilizing glass passivated chips.

### MARKING CODES:

**CBRHD-02: CBD2      CBRHD-04: CBD4**  
**CBRHD-06: CBD6      CBRHD-10: CBD10**

| MAXIMUM RATINGS: (T <sub>A</sub> =25°C unless otherwise noted) | CBRHD                             |     |             |     | UNITS |
|----------------------------------------------------------------|-----------------------------------|-----|-------------|-----|-------|
|                                                                | SYMBOL                            | -02 | -04         | -06 |       |
| Peak Repetitive Reverse Voltage                                | V <sub>RRM</sub>                  | 200 | 400         | 600 | V     |
| DC Blocking Voltage                                            | V <sub>R</sub>                    | 200 | 400         | 600 | V     |
| RMS Reverse Voltage                                            | V <sub>R(RMS)</sub>               | 140 | 280         | 420 | V     |
| Average Forward Current (T <sub>A</sub> =40°C) (Note 1)        | I <sub>O</sub>                    |     |             | 0.5 | A     |
| Average Forward Current (T <sub>A</sub> =40°C) (Note 2)        | I <sub>O</sub>                    |     |             | 0.8 | A     |
| Peak Forward Surge Current                                     | I <sub>FSM</sub>                  |     |             | 30  | A     |
| Operating & Storage Junction Temperature                       | T <sub>J</sub> , T <sub>stg</sub> |     | -65 to +150 |     | °C    |

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

| SYMBOL         | TEST CONDITIONS                                                | TYP | MAX | UNITS |
|----------------|----------------------------------------------------------------|-----|-----|-------|
| I <sub>R</sub> | V <sub>R</sub> =Rated V <sub>RRM</sub>                         |     | 5.0 | μA    |
| I <sub>R</sub> | V <sub>R</sub> =Rated V <sub>RRM</sub> , 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                                 | 20  |     | pF    |

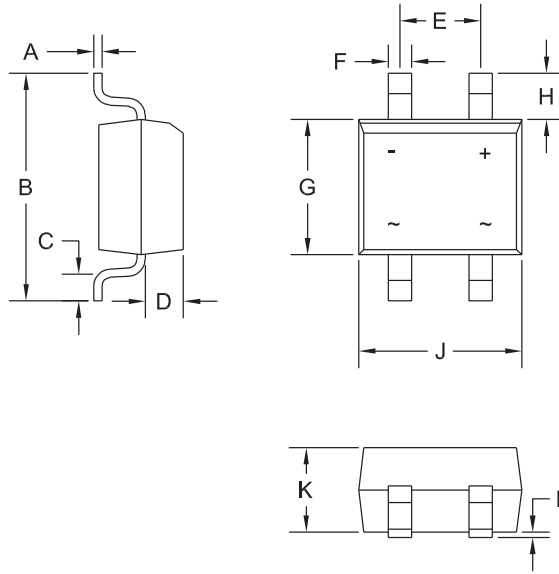
Notes: (1) Mounted on Glass-Epoxy PCB.  
(2) Mounted on Ceramic PCB.

\* Available on special order, please consult factory.

**CBRHD SERIES**  
**SURFACE MOUNT**  
**HIGH DENSITY**  
**0.5 AMP**  
**SILICON BRIDGE RECTIFIER**



**HD DIP CASE - MECHANICAL OUTLINE**



R2

**MARKING CODES:**  
**CBRHD-02: CBD2**  
**CBRHD-04: CBD4**  
**CBRHD-06: CBD6**  
**CBRHD-10: CBD10**

| SYMBOL | INCHES |       | MILLIMETERS |      |
|--------|--------|-------|-------------|------|
|        | MIN    | MAX   | MIN         | MAX  |
| A      | 0.006  | 0.014 | 0.15        | 0.35 |
| B      | -      | 0.275 | -           | 7.00 |
| C      | 0.027  | 0.043 | 0.70        | 1.10 |
| D      | 0.035  | 0.051 | 0.90        | 1.30 |
| E      | 0.090  | 0.106 | 2.30        | 2.70 |
| F      | 0.019  | 0.031 | 0.50        | 0.80 |
| G      | 0.150  | 0.165 | 3.80        | 4.20 |
| H      | 0.051  | 0.067 | 1.30        | 1.70 |
| J      | 0.177  | 0.193 | 4.50        | 4.90 |
| K      | 0.090  | 0.106 | 2.30        | 2.70 |
| L      | 0.000  | 0.008 | 0.00        | 0.20 |

HD DIP (REV: R2)

R4 (14-December 2011)