#### **CBRHD SERIES**

# SURFACE MOUNT HIGH DENSITY 0.5 AMP SILICON BRIDGE RECTIFIER



• This series is UL listed: file number E130224

# Central semiconductor corp.

www.centralsemi.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-10: CBD10

#### **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/mm²) than the industry standard 1.0 Amp surface mount bridge rectifier.
- · Glass passivated chips for high reliability.

MAXIMUM RATINGS: (T <sub>A</sub> =25°C unless otherwise r	noted) <b>SYMBOL</b>	CBRHD -02	CBRHD -04	CBRHD -06	CBRHD -10 *	UNITS
Peak Repetitive Reverse Voltage	, V <sub>RRM</sub>	200	400	600	1000	V
DC Blocking Voltage	$V_{R}$	200	400	600	1000	V
RMS Reverse Voltage	V <sub>R</sub> (RMS)	140	280	420	700	V
Average Forward Current (T <sub>A</sub> =40°C) (Note 1)	lo		(	).5		Α
Average Forward Current (T <sub>A</sub> =40°C) (Note 2)	IO		(	0.8		Α
Peak Forward Surge Current	<sup>I</sup> FSM		;	30		Α
Operating & Storage Junction Temperature	$T_{\rm J}, T_{\rm sta}$		-65 t	o +150		°C

## **ELECTRICAL CHARACTERISTICS PER DIODE:** (TA=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	TYP	MAX	UNITS
$I_{R}$	V <sub>R</sub> =Rated V <sub>RRM</sub>		5.0	μΑ
$I_{R}$	V <sub>R</sub> =Rated V <sub>RRM</sub> , T <sub>A</sub> =125°C		500	μΑ
$V_{F}$	I <sub>F</sub> =400mA		1.0	V
$C_{.1}$	V <sub>R</sub> =4.0V, f=1.0MHz	20		pF

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

(2) Mounted on Ceramic PCB.

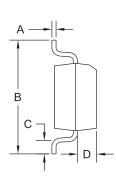
<sup>\*</sup> Available on special order, please consult factory.

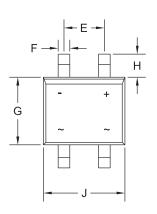
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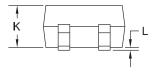
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# **HD DIP CASE - MECHANICAL OUTLINE**







R2

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

DIMENSIONS								
INCHES		MILLIMETERS						
MIN	MAX	MIN	MAX					
0.006	0.014	0.15	0.35					
-	0.275	-	7.00					
0.027	0.043	0.70	1.10					
0.035	0.051	0.90	1.30					
0.090	0.106	2.30	2.70					
0.019	0.031	0.50	0.80					
0.150	0.165	3.80	4.20					
0.051	0.067	1.30	1.70					
0.177	0.193	4.50	4.90					
0.090	0.106	2.30	2.70					
0.000	0.008	0.00	0.20					
	INC MIN 0.006 - 0.027 0.035 0.090 0.019 0.150 0.051 0.177 0.090	INCHES   MIN   MAX   0.006   0.014   - 0.275   0.027   0.043   0.035   0.051   0.090   0.106   0.019   0.031   0.150   0.165   0.051   0.067   0.177   0.193   0.090   0.106	INCHES   MILLIM   MIN   MAX   MIN   0.006   0.014   0.15   - 0.275   - 0.027   0.043   0.70   0.035   0.051   0.90   0.090   0.106   2.30   0.019   0.031   0.50   0.150   0.165   3.80   0.051   0.067   1.30   0.177   0.193   4.50   0.090   0.106   2.30					

HD DIP (REV: R2)

R3 (4-January 2010)