



**THE DATASHEET OF  
CBRHD-04 TR13**



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



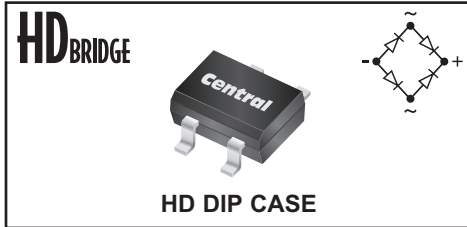
www.centrasemi.com

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CBRHD series devices 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**



**HD DIP CASE**

**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.

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

	SYMBOL	CBRHD				UNITS
		-02	-04	-06	-10*	
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	200	400	600	1000	V
DC Blocking Voltage	V <sub>R</sub>	200	400	600	1000	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	140	280	420	700	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

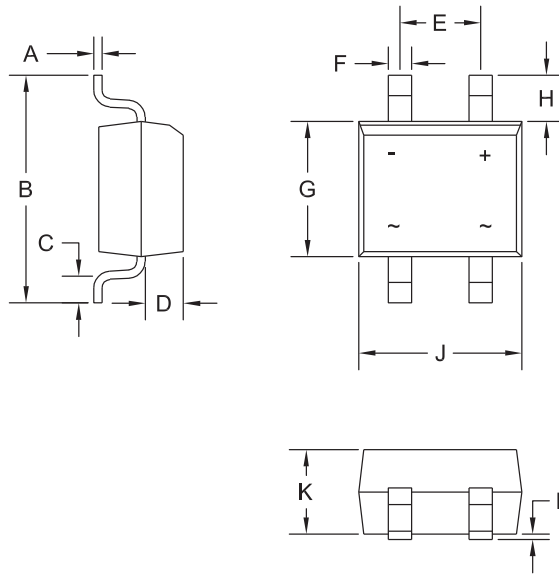
Notes: (1) Mounted on Glass-Epoxy PCB.  
(2) Mounted on Ceramic PCB.

\* Available on special order, please consult factory.

**CBRHD SERIES**  
**SURFACE MOUNT SILICON**  
**HIGH DENSITY**  
**0.5 AMP**  
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**HD DIP CASE - MECHANICAL OUTLINE**



R2

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

SYMBOL	DIMENSIONS			
	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)

R5 (18-February 2016)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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### CONTACT US

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- [Central Semiconductor Corp Information](#)

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- ✓ Global Sourcing Solution
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