

# Silicon Bridge Rectifier

## **CBRHD-10**

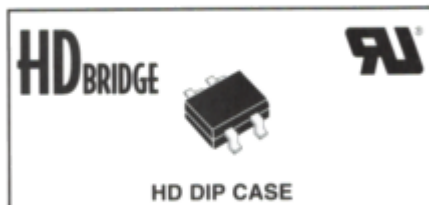
1000V / 0,5A

# DATASHEET

OEM – Central Semiconductor Corp.

Source: Central Databook 2004

**CBRHD SERIES**  
**HIGH DENSITY**  
**½ 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 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)

	SYMBOL	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 <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)(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

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
V <sub>F</sub>	I <sub>F</sub> =400mA			1.0	V
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
C <sub>J</sub>	V <sub>R</sub> =4.0V, f=1.0MHz		20		pF

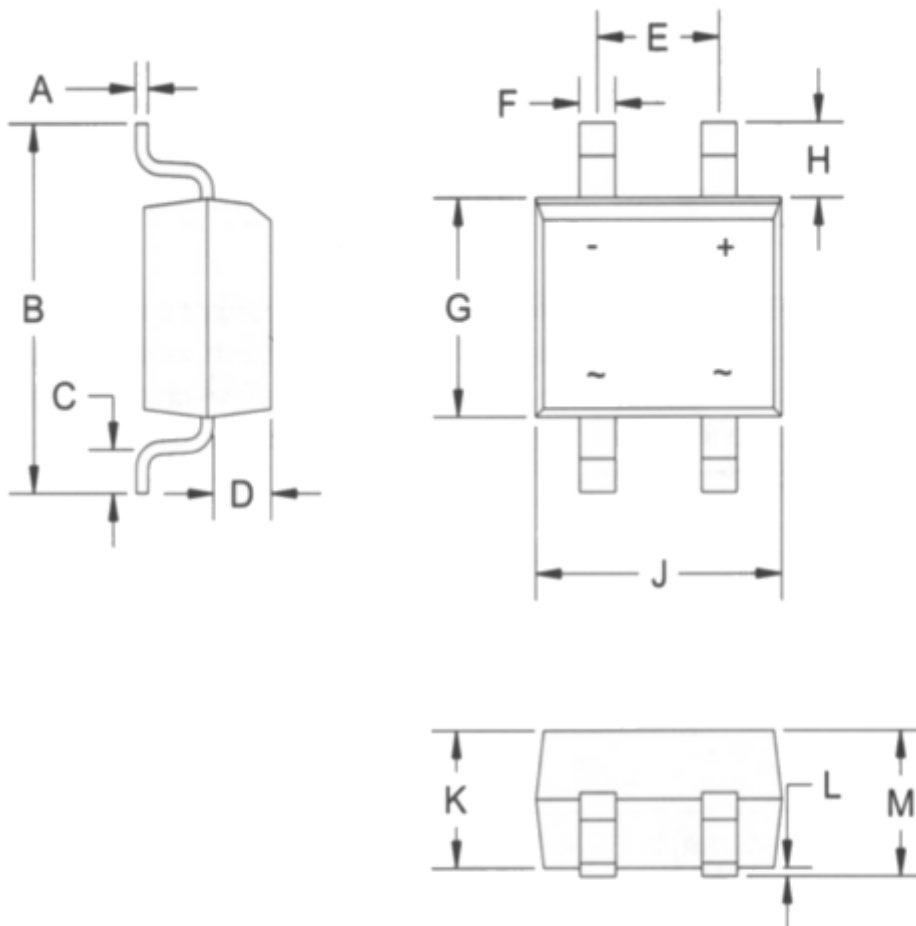
(1) Mounted on a Glass-Epoxy P.C.B.

(2) Mounted on a Ceramic P.C.B.

\* Available on special order, please consult factory.

For Typical Electrical Characteristic Data for this device, please see Process CPD04 on page 874.

**HD DIP CASE - MECHANICAL OUTLINE**



R1

SYMBOL	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)