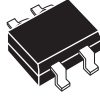


CBRHD-01POE

HIGH DENSITY
0.8 AMP DUAL IN LINE
POE BRIDGE RECTIFIER

HD
BRIDGE



HD DIP CASE

CentralTM
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CBRHD-01POE Bridge Rectifier is a high quality component specifically designed for Power over Ethernet polarity protection applications. Low leakage current and Low forward voltage drop make this an ideal component where a power efficient, small size, low profile surface mount device is a prime requirement.

MARKING CODE: CBHD1P

FEATURES:

- Current ($I_O = 0.8A$ Max)
- Repetitive Reverse Voltage ($V_R = 100V$ Max)
- Low Forward Voltage Drop ($V_F = 0.92V @ 0.8A$ Typ)
- Low Reverse Current ($250nA @ 57V$ Max)

APPLICATIONS:

Power over Ethernet or any space constrained application requiring a small, highly power efficient bridge rectifier.

MAXIMUM RATINGS: ($T_A = 25^\circ C$ unless otherwise noted)

	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
DC Blocking Voltage	V_R	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	70	V
Average Forward Current ($T_A = 40^\circ C$) (Note 1)	I_O	0.5	A
Average Forward Current ($T_A = 40^\circ C$) (Note 2)	I_O	0.8	A
Peak Forward Surge Current	I_{FSM}	40	A
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	$^\circ C$
Thermal Resistance (Note 3)	Θ_{JA}	85	$^\circ C/W$

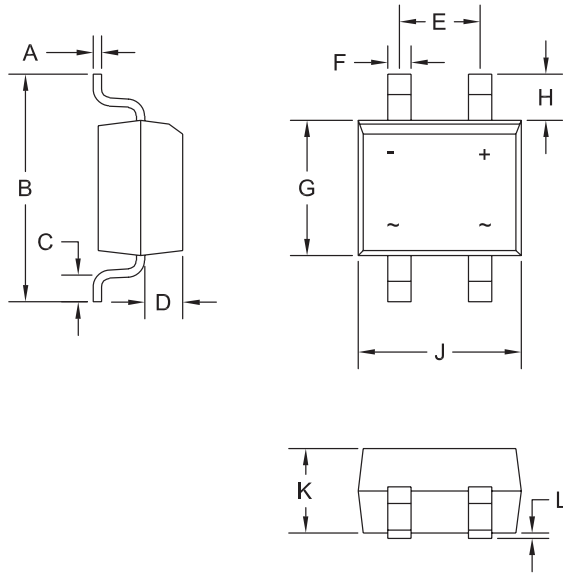
ELECTRICAL CHARACTERISTICS PER DIODE: ($T_A = 25^\circ C$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	TYP	MAX	UNITS
I_R	$V_R = 57V$		250	nA
I_R	$V_R = 100V$		500	nA
I_R	$V_R = 100V, T_A = 125^\circ C$		100	μA
V_F	$I_F = 100mA$	800	850	mV
V_F	$I_F = 250mA$	845	900	mV
V_F	$I_F = 400mA$	875	950	mV
V_F	$I_F = 800mA$	920	1000	mV
V_F	$I_F = 400mA, T_A = 100^\circ C$	720		mV
V_F	$I_F = 400mA, T_A = -40^\circ C$	1000		mV
C_J	$V_R = 4.0V, f = 1.0MHz$	25		pF

- Notes: (1) Mounted on Glass-Epoxy PCB.
(2) Mounted on Ceramic PCB.
(3) Mounted on PCB with 0.5" x 0.5" copper pads.

R1 (19-October 2007)

HD DIP CASE - MECHANICAL OUTLINE



R2

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)

MARKING CODE: CBHD1P

R1 (19-October 2007)