

Glass Passivated Single-Phase 8.0Amp Surface Mount Bridge Rectifier

Reverse Voltage - 200 to 1000 V

Forward Current - 8.0 A

FEATURES

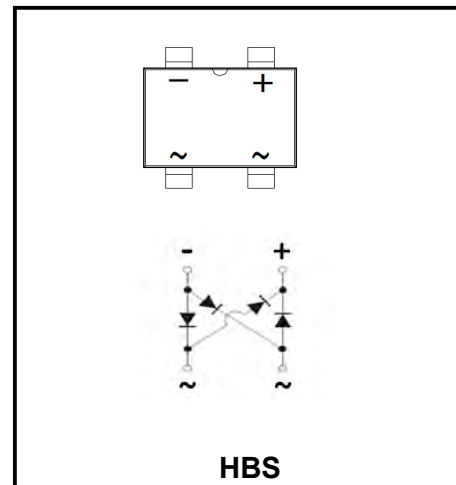
- ◆Surface mount bridge, small package;
- ◆Ideal for printed circuit boards;
- ◆Glass passivated chip junction;
- ◆High forward current capability up to 8.0A;
- ◆High surge current capability;
- ◆High heat dissipation capability;
- ◆Low profile package;
- ◆Low forward voltage drop;
- ◆Plastic package has Underwrites Laboratory Flammability Classification 94V-0;

MECHANICAL DATA

- ◆Case: HBS;
- ◆Epoxy meets UL-94V-0 Flammability rating;
- ◆Terminals: Matte tin plated leads, solderable per J-STD-002 and JESD22-B102;
- ◆High temperature soldering guaranteed: Solder Reflow 260°C, 10seconds;
- ◆Polarity: As marked on body;
- ◆Marking: Type number;

Typical Applications

- ◆General purpose use in AC-to-DC bridge full wave rectification for Fast Charging, Switching Power Supply, USB PD, Adapter and 3-in-1 Power Board, etc.



Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbols	HBS802	HBS804	HBS806	HBS808	HBS810	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	200	400	600	800	1000	V
Maximum average forward rectified output current at $T_A=25^{\circ}C$	$I_{F(AV)}$	8.0					A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I_{FSM}	200					A
I^2t Rating for Fusing ($t < 8.3ms$)	I^2t	166					A ² S
Instantaneous forward voltage drop per diode @ $I_F=1.0A$ @ $I_F=4.0A$ @ $I_F=8.0A$	V_F	0.82 Typ. 0.89 Typ. 0.94 Typ. 0.87 max. 0.94 max. 1.0 max.					V
Reverse Current at Rated DC Blocking Voltage $T_A=25^{\circ}C$ $T_A=125^{\circ}C$	I_R	0.15 Typ. 20.0 Typ. 5.0 max. 100 max.					uA
Typical capacitance (note1)	C_j	49					pF
Typical thermal resistance	$R_{\theta J-A}$ $R_{\theta J-C}$ $R_{\theta J-L}$	70.0 11.0 14.0					°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 to +150					°C

Note1: Measured at 1.0MHz and applied reverse voltage of 5.0V DC;

Ratings and Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise noted)

FIG.1 Derating Curve Output Rectified Current

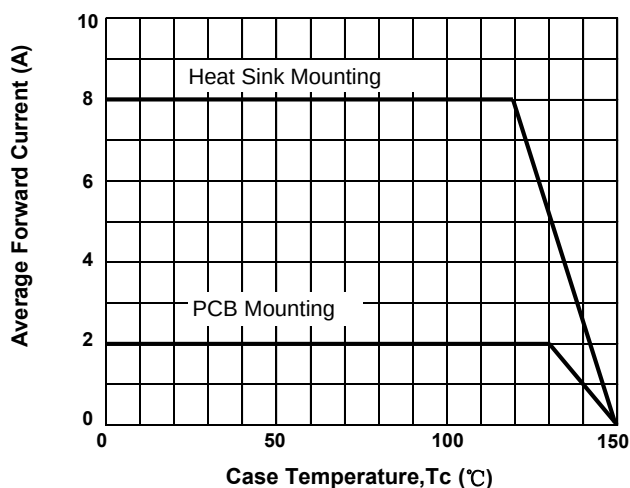


FIG.2 Typical Forward Characteristics per Diode

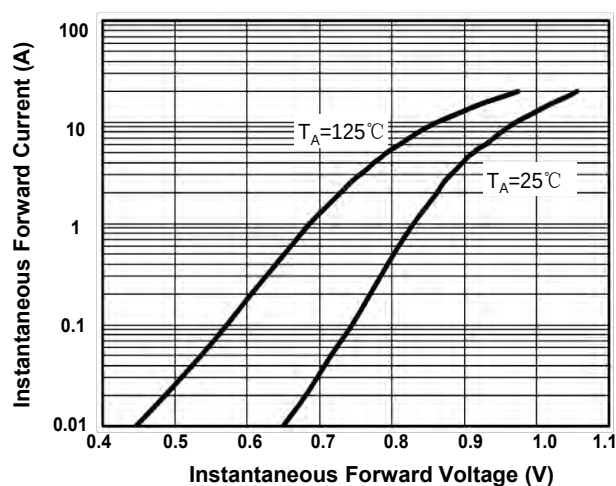


FIG.3 Maximum Non-Repetitive Peak Forward Surge Current per Diode

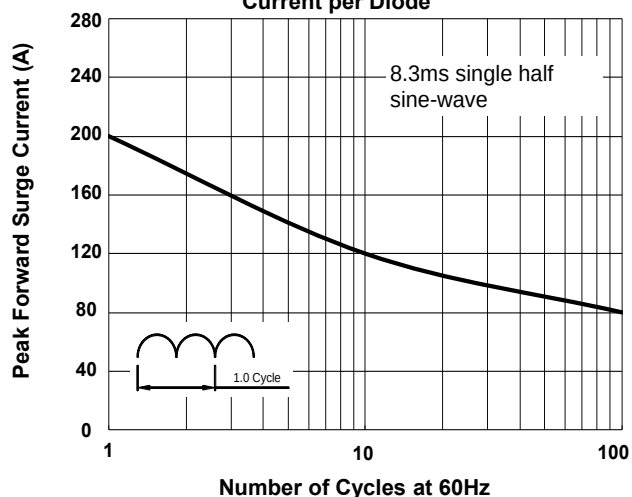


FIG.4 Typical Reverse Characteristics per Diode

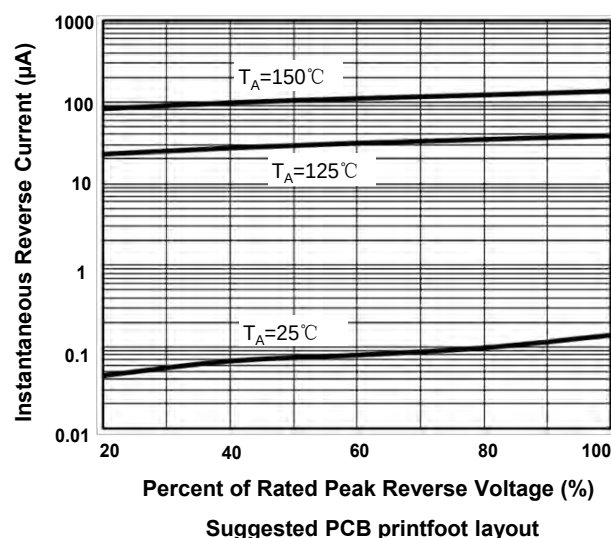
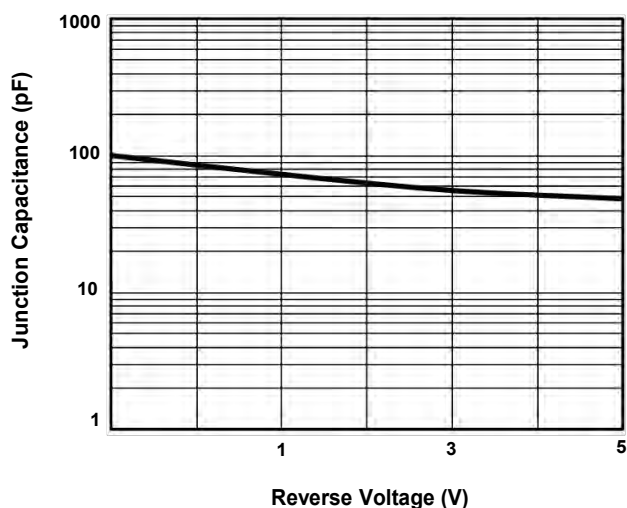
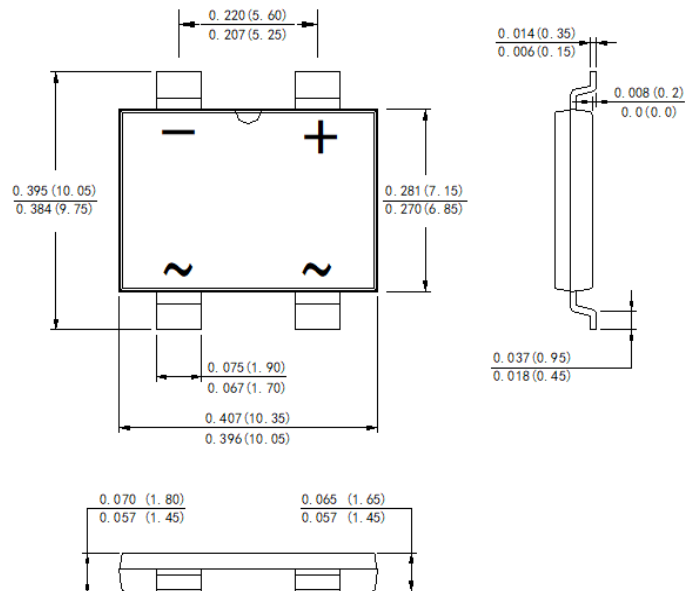


FIG.5 Typical Junction Capacitance per Diode



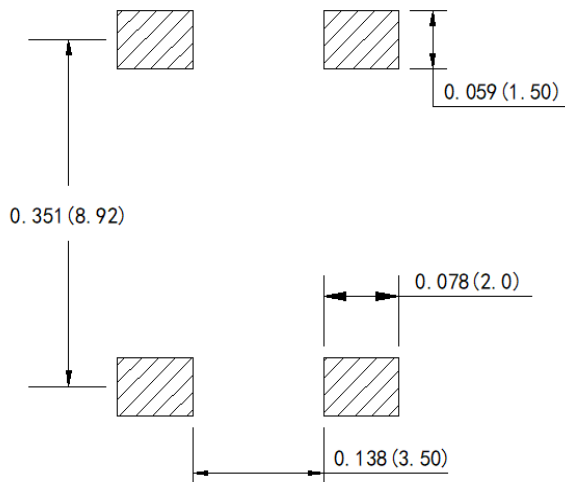
Package Outline

HBS



Suggested PCB printfoot layout

Unit: inches (mm)



Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
HBS	Tape/Reel,13"reel	2500	EIA-481-1

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Bridge Rectifiers](#) category:

Click to view products by [YFW Electronics](#) manufacturer:

Other Similar products are found below :

[MB2510](#) [MB252](#) [MB356G](#) [MB358G](#) [GBJ1504-BP](#) [GBU10B-BP](#) [GBU15K-BP](#) [GBU4A-BP](#) [GBU4D-BP](#) [DB101-BP](#) [DBA100G](#) [DBA150G](#)
[DBA250G](#) [DBA40G](#) [DBA500G](#) [DBD10G-TM-E](#) [KBPC50-10S](#) [RS405GL-BP](#) [GBU6M](#) [TB102M](#) [MB1510](#) [MB86](#) [TL401G](#) [MDA920A2](#)
[TU602](#) [TU810](#) [MP5010W-BP](#) [MP502-BP](#) [KBPC25-02](#) [DB105-BP](#) [DBB08G-TM-E](#) [DF1510S](#) [MQSPA25](#) [GBU4G-BP](#) [TB354](#) [GBJ2504-](#)
[BP](#) [B1S-G](#) [ABS10-G](#) [GBU6B-BP](#) [GBJ1508-BP](#) [BR5010-G](#) [ABS6-G](#) [MSB15MH-13](#) [LBS10-13](#) [S3PDB60N18](#) [FPIL80](#) [CSB154](#) [BR86DL](#)
[GBPC25-06W](#) [2W04M](#)