

SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIERS

Features

- ◆ Surface mount bridge, small package;
- ◆ Ideal for printed circuit boards;
- ◆ Glass passivated chip junction;
- ◆ High forward current capability up to 5.0A;
- ◆ High surge current capability;
- ◆ High heat dissipation capability;
- ◆ Low profile package;
- ◆ Low forward voltage drop;
- ◆ Plastic package has Underwrites Laboratory Flammability Classification 94V-0;

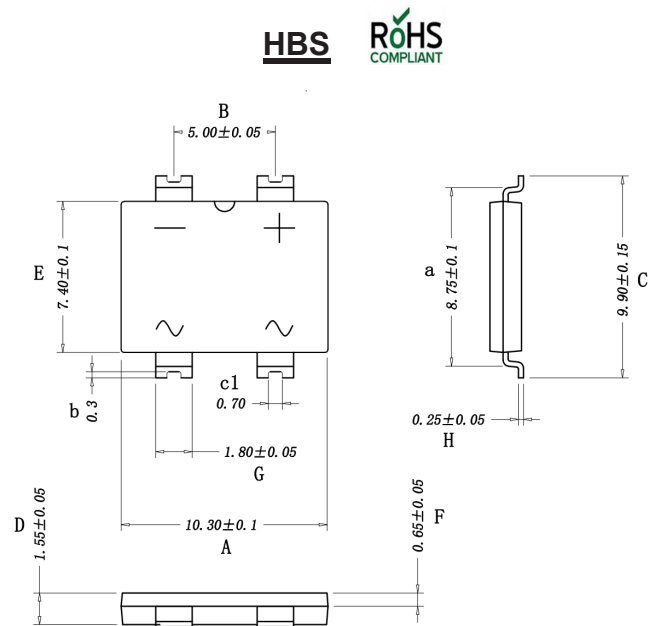
Mechanical Data

Case : JEDEC HBS Molded plastic body

Mounting Position : Any

High temperature soldering guaranteed: Solder Reflow
260 °C ,10seconds

Polarity: As marked on body



Dimensions in inches and (millimeters)

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 current derate by 20%.

Parameter	SYMBOLS	MDD RHBS502	MDD RHBS504	MDD RHBS506	MDD RHBS508	MDD RHBS510	UNITS
Marking Code							
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 current at $T_A=25^\circ\text{C}$	$I_{F(AV)}$	5.0					A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150					A
Maximum instantaneous forward voltage drop per diode at 5A	V_F	1.3					V
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$	I_R	5 100					μA
Maximum reverse recovery time ⁽¹⁾	T_{rr}	150		250		500	ns
Typical thermal resistance	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	69 12 12					$^\circ\text{C/W}$
Operating junction and Storage Temperature Range	T_j, T_{STG}	-55 to +150					$^\circ\text{C}$
Rating for fusing ($t < 8.3\text{ms}$)	I^2t	93					A^2sec

Note1: $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$

Ratings And Characteristic Curves

(TA = 25°C unless otherwise noted)

FIG.1 Derating Curve Output Rectified Current

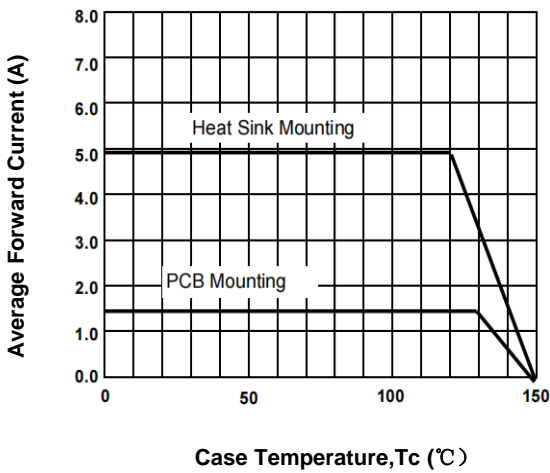


FIG.2 Typical Forward Characteristics per Diode

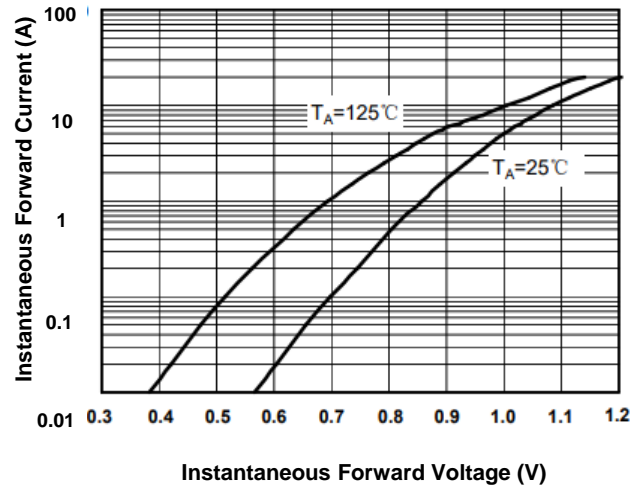


FIG.3 Maximum Non-Repetitive Peak Forward Surge Current per Diode

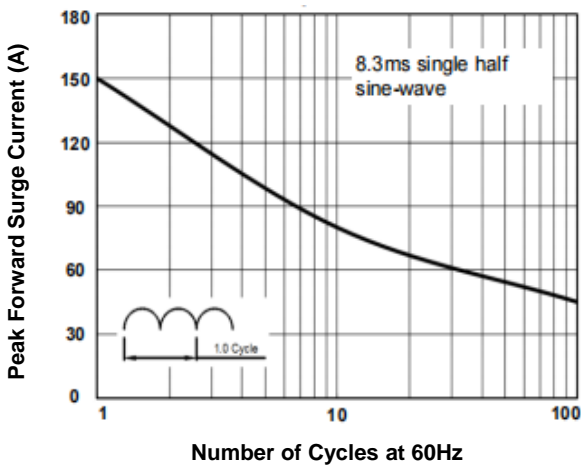


FIG.4 Typical Reverse Characteristics per Diode

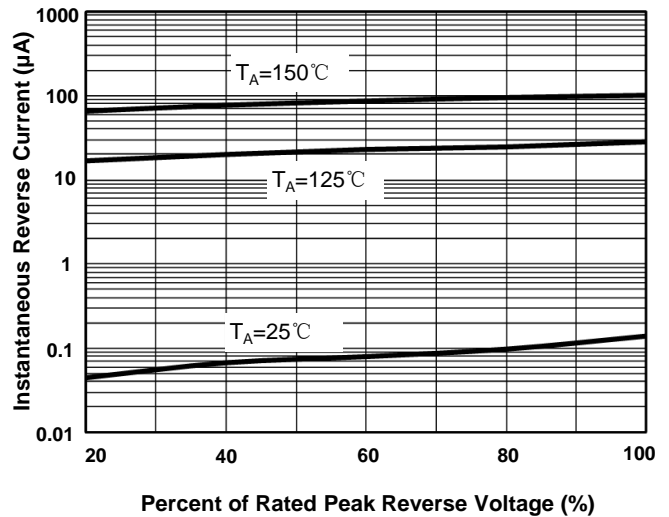
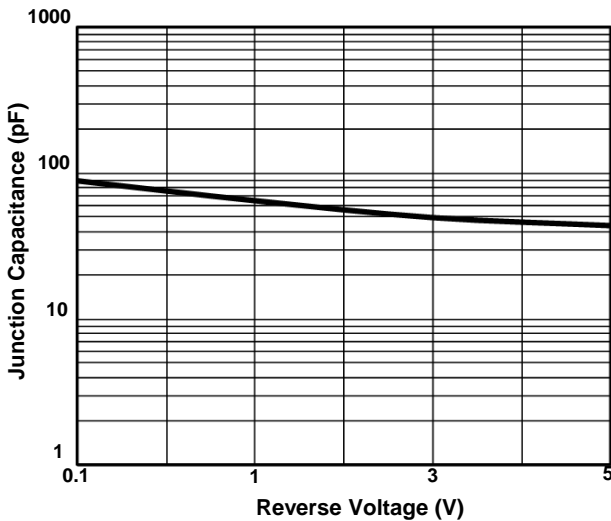
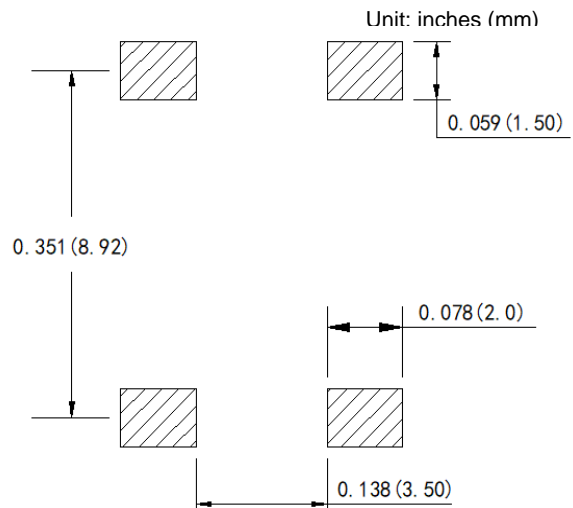


FIG.5 Typical Junction Capacitance per Diode



Suggested PCB printfoot layout





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