

## 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 4.0A;
- ◆ 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

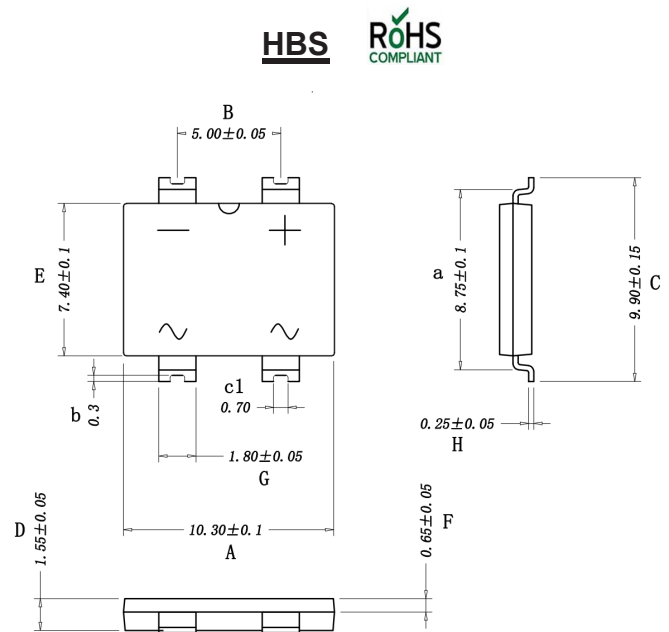
**Case :** JEDEC HBS Molded plastic body

**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 HBS402	MDD HBS404	MDD HBS406	MDD HBS408	MDD HBS410	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 $T_A=25^{\circ}C$	$I_{F(AV)}$	4.0					A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	120					A
Maximum instantaneous forward voltage drop per diode at 4A	$V_F$	1.10					V
Maximum DC reverse current at rated DC blocking voltage $T_A=25^{\circ}C$ $T_A=125^{\circ}C$	$I_R$	5 100					$\mu A$
Typical capacitance (note1)	$C_J$	33					pF
Typical thermal resistance	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	67 7 11					$^{\circ}C/W$
Operating junction and Storage Temperature Range	$T_j, T_{STG}$	-55 to +150					$^{\circ}C$

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

## Ratings And Characteristic Curves

FIG.1 Derating Curve Output Rectified Current

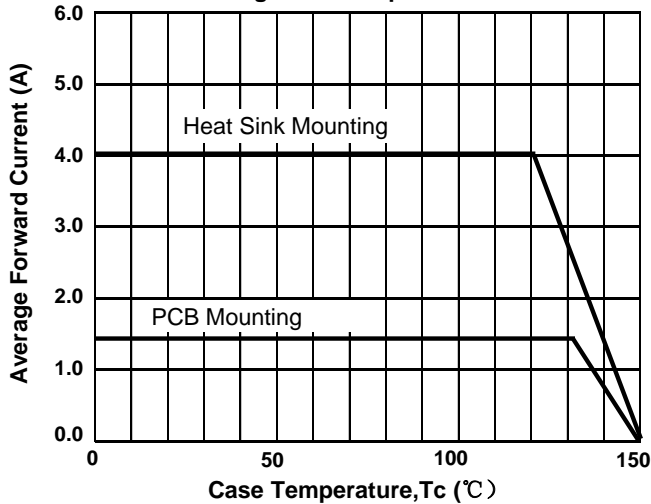


FIG.2 Typical Forward Characteristics per Diode

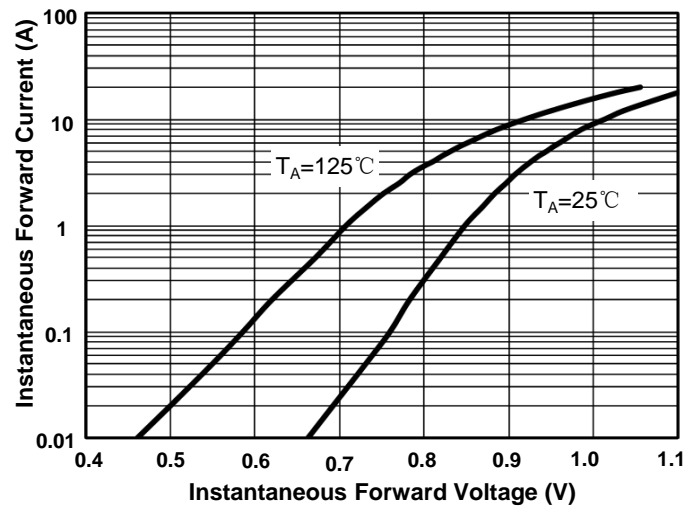


FIG.3 Maximum Non-Repetitive Peak Forward Surge Current per Diode

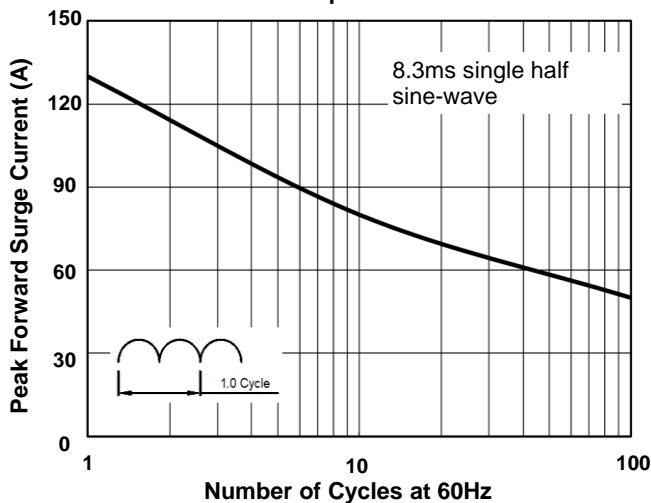


FIG.4 Typical Reverse Characteristics per Diode

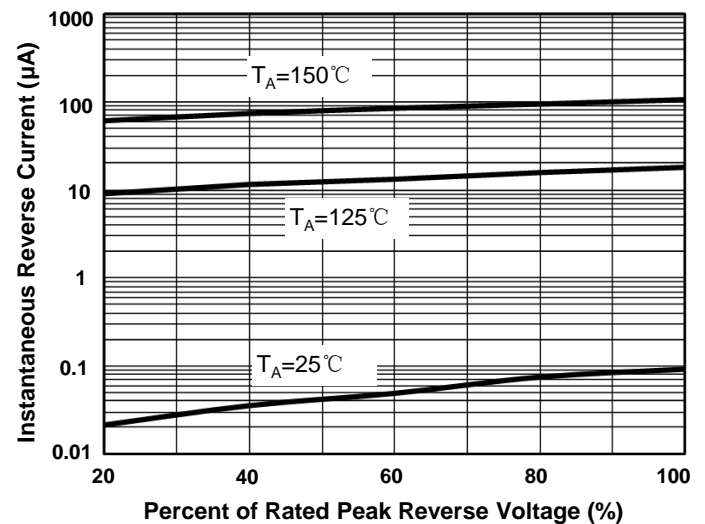
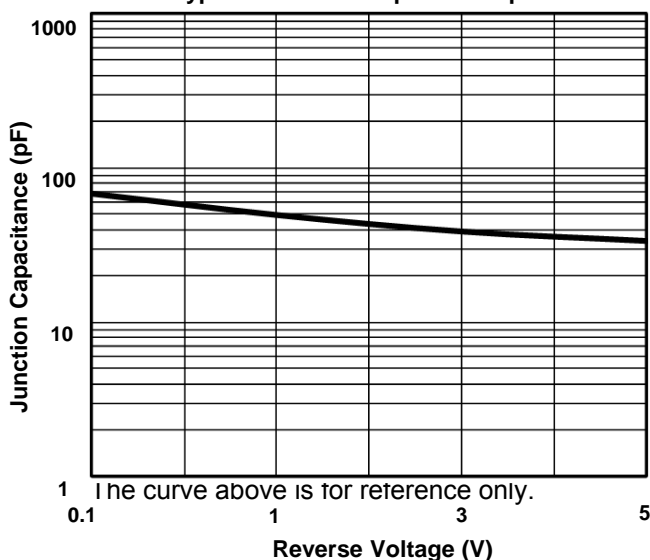


FIG.5 Typical Junction Capacitance per Diode





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