Elektronische Bauelemente

HBS802H~HBS810H

Voltage 200V~1000V

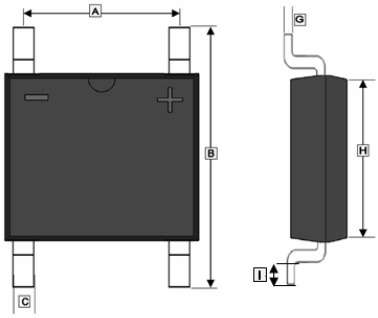
8.0 Amp Surface Mount Bridge Rectifier

RoHS Compliant Product

FEATURES

- Surface mount bridge, small package
- Ideal for printed circuit boards
- Glass passivated chip junction
- High forward current capability up to 8A
- High surge current capability
- High heat dissipation capability
- Low profile package
- Low forward voltage drop
- Plastic package has Underwrites Laboratory Flammability Classification 94V-0

HBS



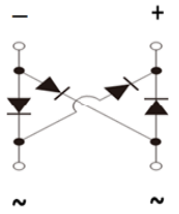
REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	5.25	5.60	F	-	0.2
B	9.75	10.05	G	0.15	0.35
C	1.70	1.90	H	6.85	7.15
D	10.05	10.35	I	0.45	0.95
E	1.45	1.65			

MECHANICAL DATA

- Case: HBS
- 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

ORDER INFORMATION

Part Number	Type
HBS802H~HBS810H	Lead (Pb)-free and Halogen-free



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating at 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load. For capacitive load, de-rate current by 20%.)

Parameter		Symbol	Part Number					Unit
			HBS802H	HBS804H	HBS806H	HBS808H	HBS810H	
Maximum Peak Repetitive Reverse Voltage		V_{RRM}	200	400	600	800	1000	V
Maximum RMS Voltage		V_{RMS}	140	280	420	560	700	
Maximum DC Blocking Voltage		V_{DC}	200	400	600	800	1000	
Average Rectified Output Current [2]		I_F	8					A
Non-Repetitive Peak Forward Surge Current @8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)		I_{FSM}	200					A
Rating for Fusing (t<8.3ms)		I^2t	166					A^2s
Instantaneous Forward Voltage Drop Per Diode	I_F=1A	V_F	0.87					V
	I_F=4A		0.94					
	I_F=8A		1					
Peak Reverse Current @Rated DC Blocking Voltage	T_A=25°C	I_R	5					μA
	T_A=125°C		100					
Typical Capacitance [1]		C_J	49					pF
Typical Thermal Resistance		$R_{\theta JA}$	70					°C/W
		$R_{\theta JC}$	11					
		$R_{\theta JL}$	14					
Operating & Storage Temperature Range		T_J, T_{STG}	-55~150					°C

Notes:

1. Measured at 1MHz and applied reverse voltage of 5V D.C.
2. Device mounted on 20mm x 20mm x1.6mm AL pad, attached on 100mm x 80mm x 30mm Fin heat sink.

RATINGS AND CHARACTERISTIC CURVES

FIG.1 Derating Curve Output Rectified Current

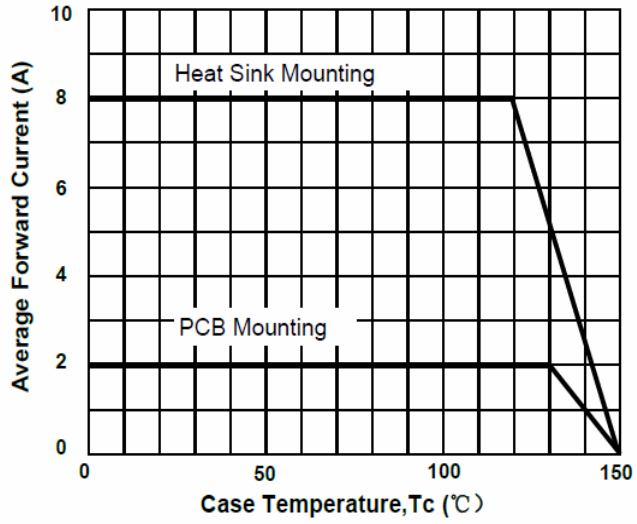


FIG.2 Typical Forward Characteristics per Diode

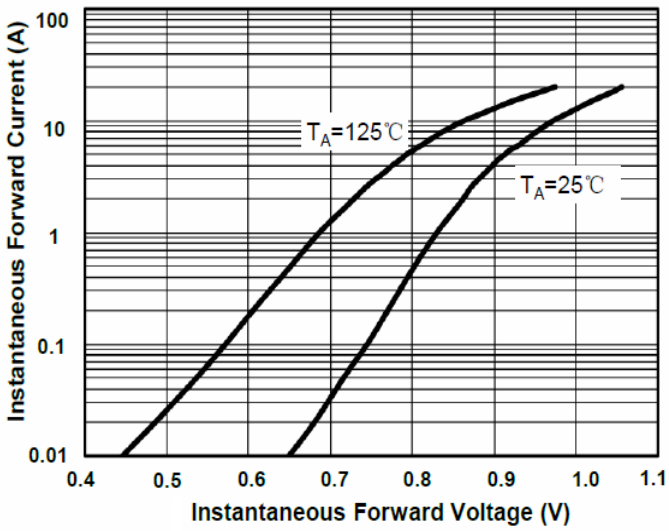


FIG.3 Maximum Non-Repetitive Peak Forward Surge Current per Diode

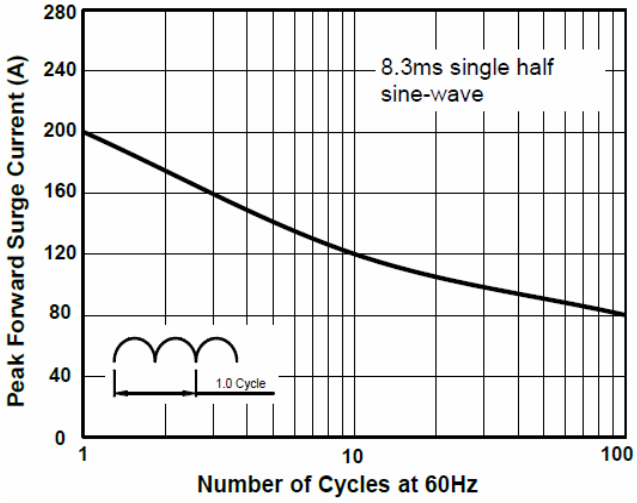


FIG.4 Typical Reverse Characteristics per Diode

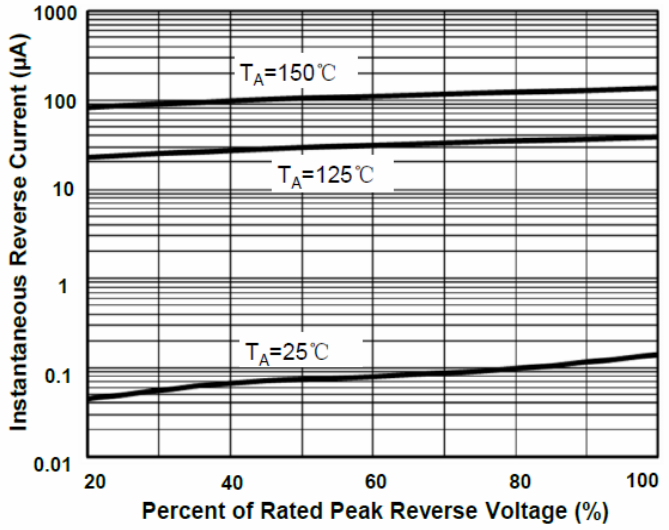


FIG.5 Typical Junction Capacitance per Diode

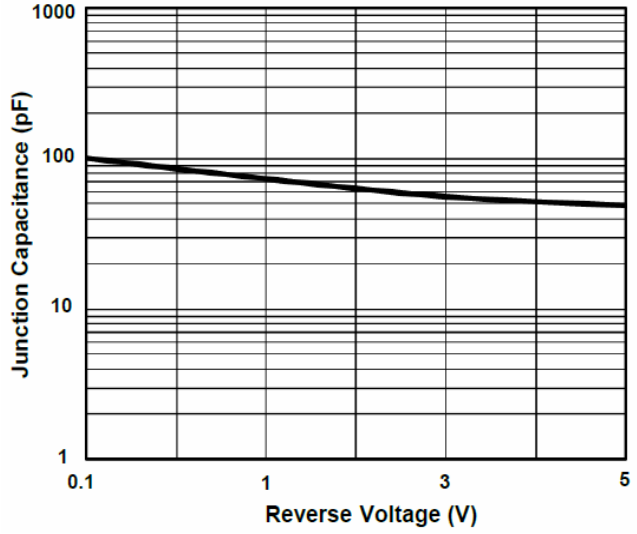


FIG. 6 Mounting Pad Layout