

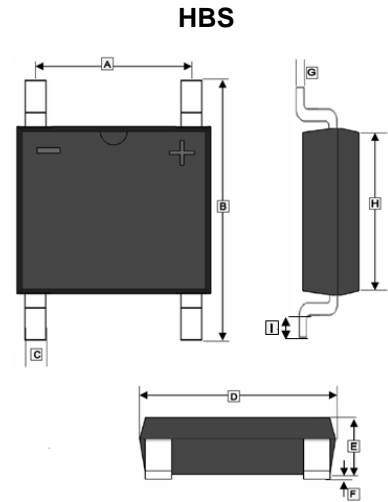
RoHS Compliant Product

FEATURES

- Surface mount bridge, small package
- Ideal for printed circuit boards
- Glass passivated chip junction
- High forward current capability up to 4A
- 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

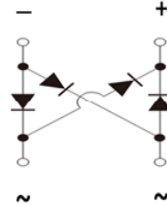
- Case: HBS
- Terminals: Matte tin plated leads, solderable per J-STD-002 and JESD22-B102
- High temperature soldering guaranteed: Solder Reflow 260°C, 10seconds
- Polarity: As marked on body
- Marking: Type Number



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			

ORDER INFORMATION

Part Number	Type
HBS402H~HBS410H	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	
		HBS402H	HBS404H	HBS406H	HBS408H	HBS410H		
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	4					A	
Non-Repetitive Peak Forward Surge Current @8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	130					A	
Rating for Fusing ($t < 8.3ms$)	I^2t	70					A ² s	
Instantaneous Forward Voltage Drop Per Diode	V_F	$I_F=1A$	0.89				V	
			$I_F=2A$	0.93				
				$I_F=4A$	0.98			
Peak Reverse Current @ Rated DC Blocking Voltage	I_R	$T_A=25^\circ C$	5				μA	
		$T_A=125^\circ C$	100					
Typical Capacitance ¹	C_J	33					pF	
Typical Thermal Resistance	$R_{\theta JA}$	67					$^\circ C/W$	
	$R_{\theta JC}$	7						
	$R_{\theta JL}$	11						
Operating and Storage Temperature Range	T_J, T_{STG}	-55~150					$^\circ C$	

Notes:

1. Measured at 1MHz and applied reverse voltage of 5V D.C.
2. Device mounted on 20mm x 20mm x 1.6mm AL pad, attached on 100mm x 80mm x 30mm Fin heat sink.

RATINGS AND CHARACTERISTIC CURVES

FIG.1 Derating Curve Output Rectified Current

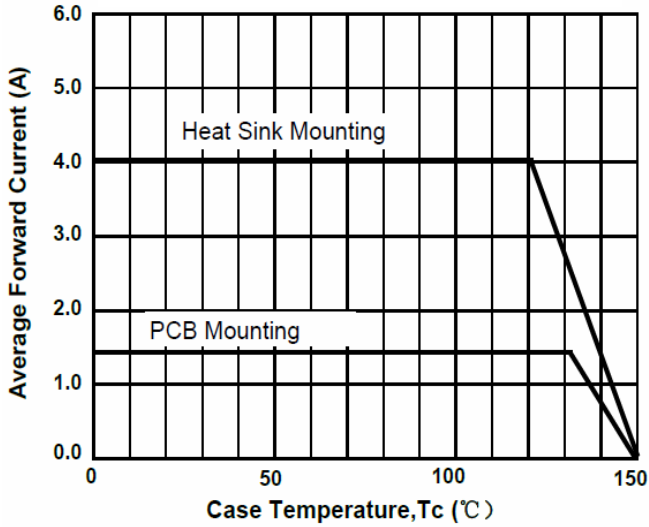


FIG.2 Typical Forward Characteristics per Diode

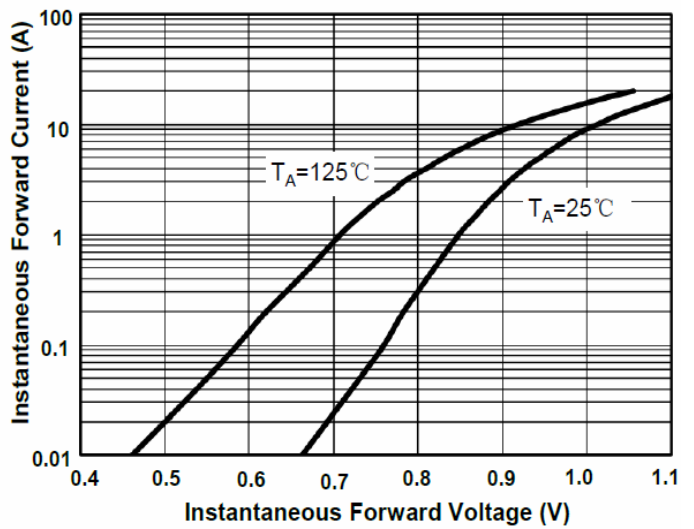


FIG.3 Maximum Non-Repetitive Peak Forward Surge Current per Diode

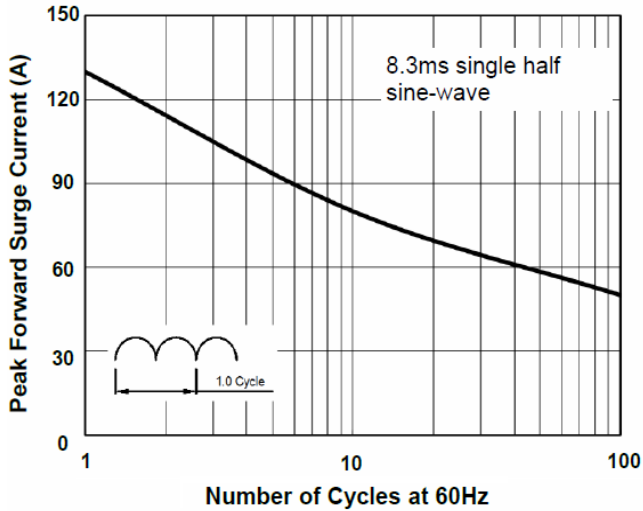


FIG.4 Typical Reverse Characteristics per Diode

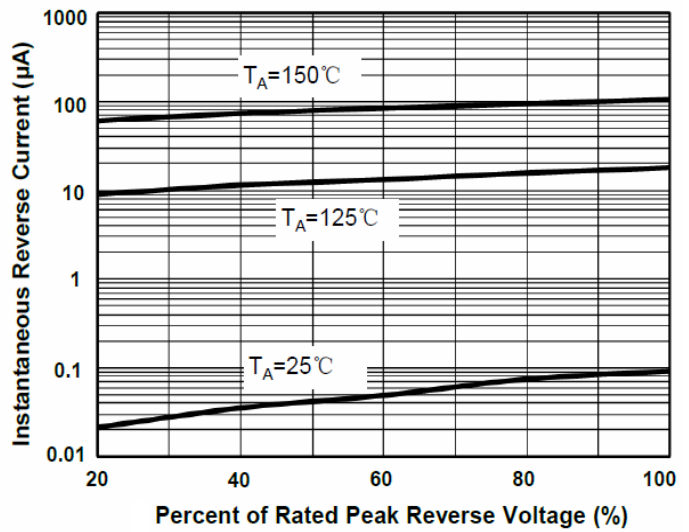


FIG.5 Typical Junction Capacitance per Diode

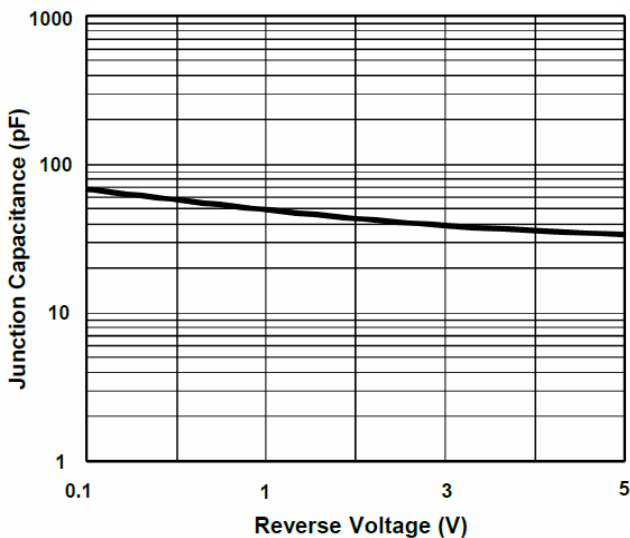


FIG. 6 Mounting Pad Layout

