

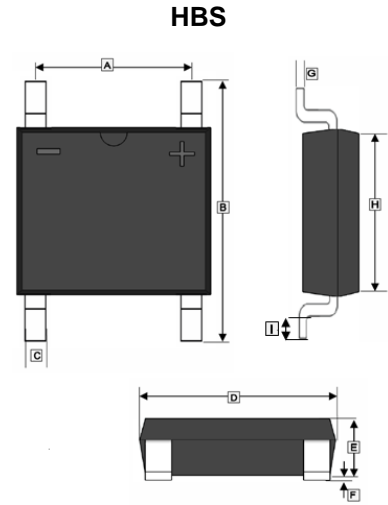
RoHS Compliant Product

**FEATURES**

- Surface mount bridge, small package
- Ideal for printed circuit boards
- Glass passivated chip junction
- High forward current capability up to 6A
- 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**

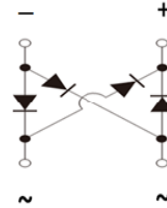
- Case: HBS
- Terminals: Matte tin plated leads, solderable per J-STD-002 and JESD22-B102
- High temperature soldering guaranteed: Solder Reflow 260°C, 10seconds
- Polarity: As marked on body
- Marking: Type Number



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
HBS602H~HBS610H	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%.)

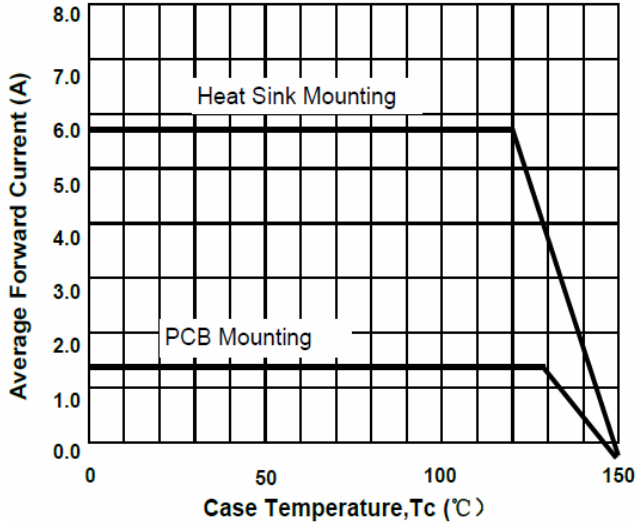
Parameter	Symbol	Part Number					Unit	
		HBS602H	HBS604H	HBS606H	HBS608H	HBS610H		
Maximum Peak Repetitive Reverse Voltage	$V_{RRM}$	200	400	600	800	1000	V	
Maximum RMS Voltage	$V_{RMS}$	140	280	420	560	700		
Maximum DC Blocking Voltage	$V_{DC}$	200	400	600	800	1000		
Average Rectified Output Current <sup>2</sup>	$I_F$	6					A	
Non-Repetitive Peak Forward Surge Current @8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	170					A	
Rating for Fusing ( $t < 8.3ms$ )	$I^2t$	120					A <sup>2</sup> s	
Instantaneous Forward Voltage Drop Per Diode	$V_F$	$I_F=1A$	0.88				V	
			$I_F=3A$	0.93				
				$I_F=6A$	0.96			
Peak Reverse Current @ Rated DC Blocking Voltage	$I_R$	$T_A=25^\circ C$	5				$\mu A$	
		$T_A=125^\circ C$	100					
Typical Capacitance <sup>1</sup>	$C_J$	43					pF	
Typical Thermal Resistance	$R_{\theta JA}$	68					$^\circ C/W$	
	$R_{\theta JC}$	10						
	$R_{\theta JL}$	22						
Operating & Storage Temperature Range	$T_J, T_{STG}$	-55~150					$^\circ C$	

Notes:

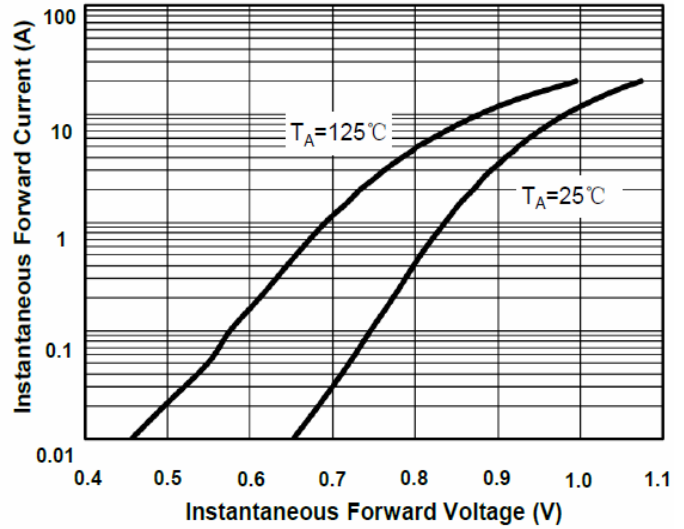
1. Measured at 1MHz and applied reverse voltage of 5V D.C.
2. Device mounted on 20mm x 20mm x 1.6mm AL pad, attached on 100mm x 80mm x 30mm Fin heat sink.

**RATINGS AND CHARACTERISTIC CURVES**

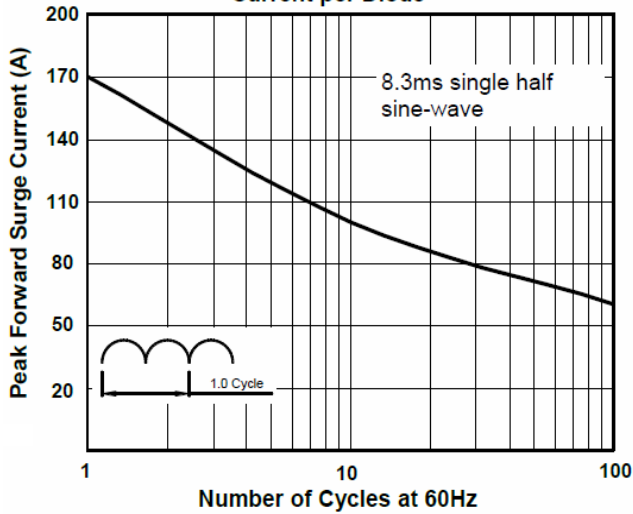
**FIG.1 Derating Curve Output Rectified Current**



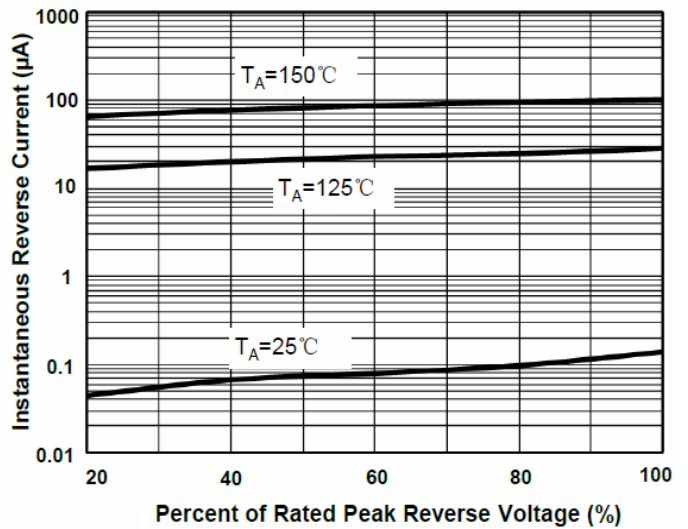
**FIG.2 Typical Forward Characteristics per Diode**



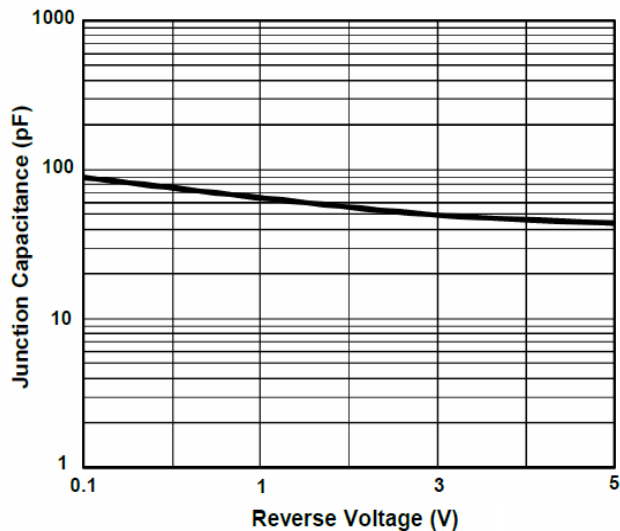
**FIG.3 Maximum Non-Repetitive Peak Forward Surge Current per Diode**



**FIG.4 Typical Reverse Characteristics per Diode**



**FIG.5 Typical Junction Capacitance per Diode**



**FIG. 6 Mounting Pad Layout**

