

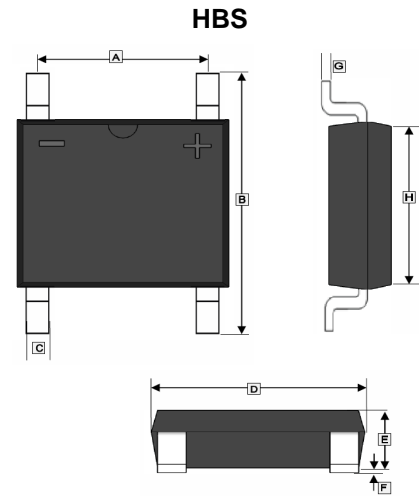
RoHS Compliant Product

## 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

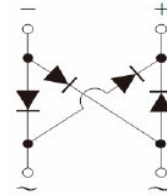
- Case: HBS
- Terminals: Matte tin plated leads, solderable per J-STD-002 and JESD22-B102
- High temperature soldering guaranteed: Solder Reflow 260°C, 10seconds
- Polarity: As marked on body
- Marking: Type Number



	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.88	5.28	E	2.3	2.7
B	9.1	9.9	F	-	0.2
C	1.2	1.6	G	0.2	0.3
D	7.95	8.35	H	6.1	6.5

## ORDER INFORMATION

Part Number	Type
HBS42~HBS410	Lead (Pb)-free
HBS42-H~HBS410-H	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%.)

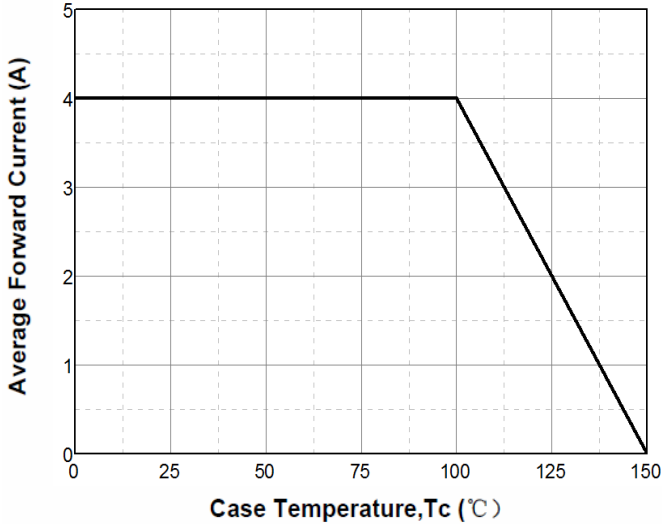
Parameter	Symbol	Part Number					Unit
		HBS42	HBS44	HBS46	HBS48	HBS410	
Maximum Peak Repetitive Reverse Voltage	$V_{RRM}$	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	140	280	420	560	700	
Maximum DC Blocking Voltage	$V_{DC}$	200	400	600	800	1000	
Average Rectified Output Current	$T_C=100^\circ\text{C}$	4					A
	$T_C=131^\circ\text{C}$	1.4					
Non-Repetitive Peak Forward Surge Current @8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	120					A
Rating for Fusing ( $t<8.3\text{ms}$ )	$I^2t$	60					$\text{A}^2\text{s}$
Forward Voltage per diode	$I_F=1\text{A}$	0.9					V
	$I_F=2\text{A}$	0.95					
	$I_F=4\text{A}$	1					
Peak Reverse Current @DC Blocking Voltage	$T_A=25^\circ\text{C}$	5					$\mu\text{A}$
	$T_A=125^\circ\text{C}$	100					
Typical Capacitance <sup>1</sup>	$C_J$	35					pF
Typical Thermal Resistance	$R_{\theta JA}$	75					$^\circ\text{C}/\text{W}$
	$R_{\theta JC}$	13					
	$R_{\theta JL}$	21					
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55~150					$^\circ\text{C}$

Note:

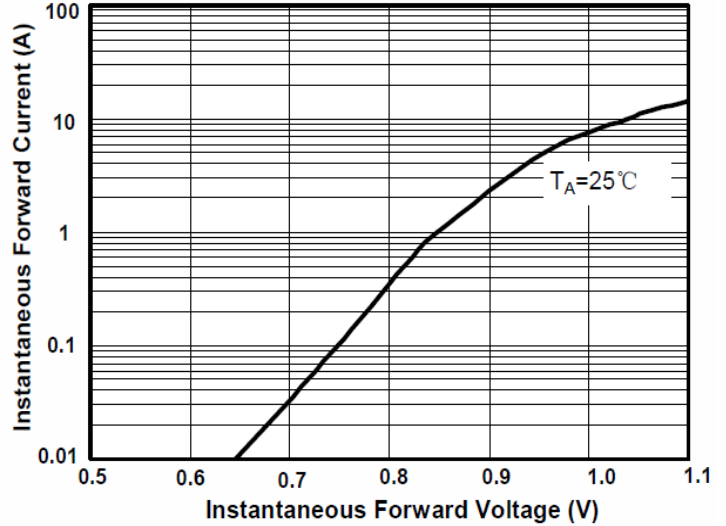
1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

**RATINGS AND CHARACTERISTIC CURVES**

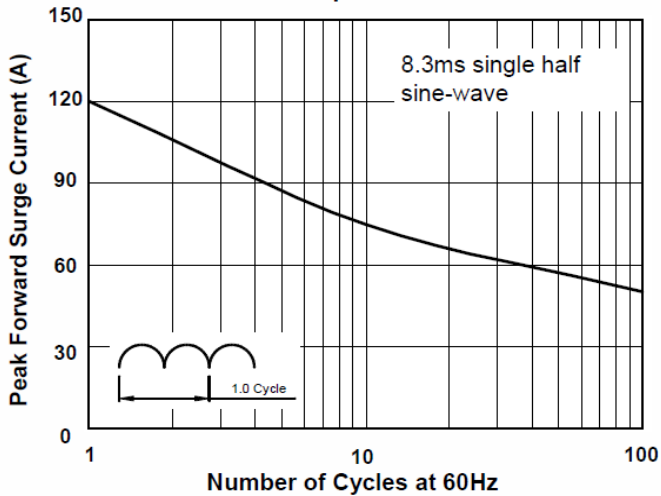
**FIG.1 Derating Curve Output Rectified Current**



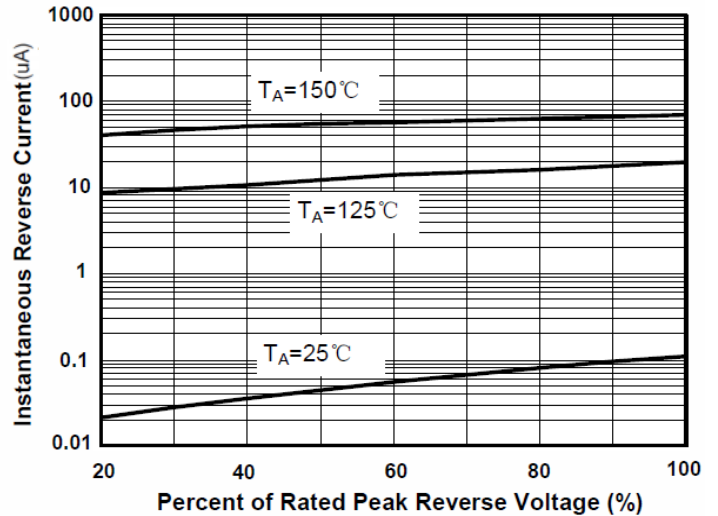
**FIG.2 Typical Forward Characteristics per Diode**



**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**

