Elektronische Bauelemente

RHBS302H~RHBS310H

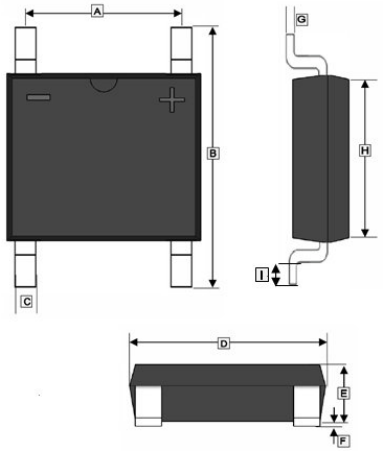
Voltage 200V~1000V
3.0 Amp Fast Recovery
Surface Mount Bridge Rectifier

RoHS Compliant Product

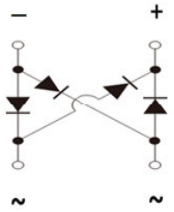
FEATURES

- Surface mount bridge, small package
- Ideal for printed circuit boards
- Glass passivated chip junction
- High forward current capability up to 3A
- High heat dissipation capability
- Low forward voltage drop
- Plastic package has Underwrites Laboratory Flammability Classification 94V-0

HBS



	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℃, 10seconds
- Polarity: As marked on body

PACKAGE INFORMATION

Package	MPQ	Leader Size
HBS	2.5K	13 inch

ORDER INFORMATION

Part Number	Type
RHBS302H~RHBS310H	Lead (Pb)-free and Halogen-free

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Parameter		Symbol	Part Number					Unit
			RHBS302H	RHBS304H	RHBS306H	RHBS308H	RHBS310H	
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	3					A
Non-Repetitive Peak Forward Surge Current @8.3ms Single half sine-wave superimposed on rated load		I_{FSM}	110					A
Rating for Fusing (t<8.3ms)		I^2t	50					A^2s
Instantaneous Forward Voltage Drop Per Diode	I_F=1A	V_F	0.95					V
	I_F=1.5A		0.97					
	I_F=3A		1.05					
Peak Reverse Current @Rated DC Blocking Voltage	T_A=25℃	I_R	5					μA
	T_A=125℃		100					
Typical Junction Capacitance [1]		C_J	27					pF
Maximum Reverse Recovery Time @I_F=0.5A,I_R=1.0A,I_{rr}=0.25A		T_{rr}	150		250		500	nS
Thermal Resistance [2]		$R_{\theta JA}$	72					℃/W
		$R_{\theta JC}$	32					
Operating & Storage Temperature Range		T_J, T_{STG}	-55~150					℃

Notes:
1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.
2. Device mounted on 20mm x 20mm x1.6mm AL pad, attached on 100mm x 80mm x 30mm Fin heat sink.

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RATINGS AND CHARACTERISTIC CURVES

FIG.1 Derating Curve Output Rectified Current

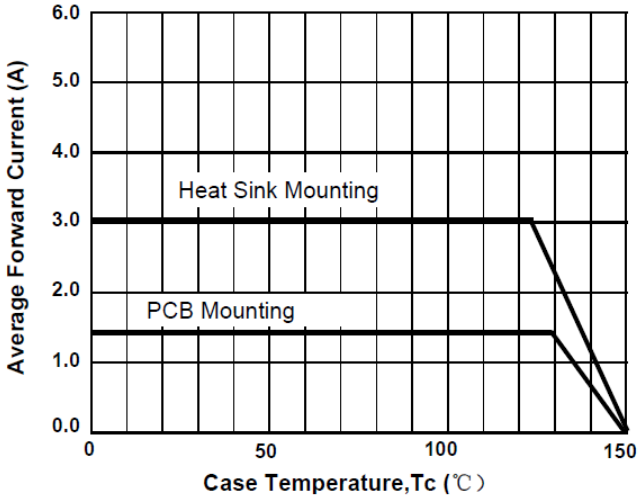


FIG.2 Typical Forward Characteristics per Diode

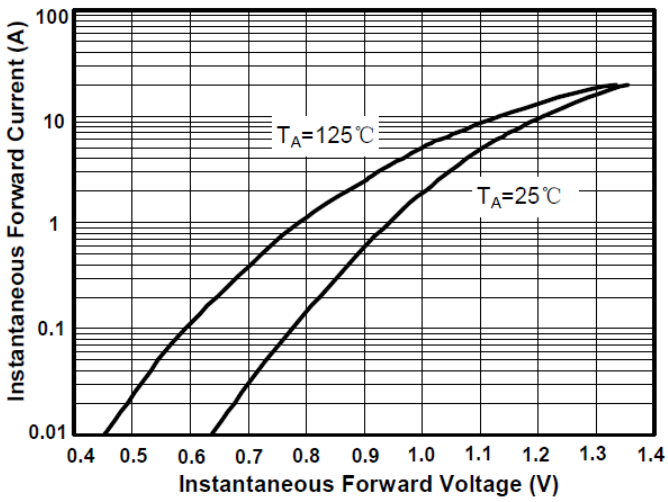


FIG.3 Maximum Non-Repetitive Peak Forward Surge Current per Diode

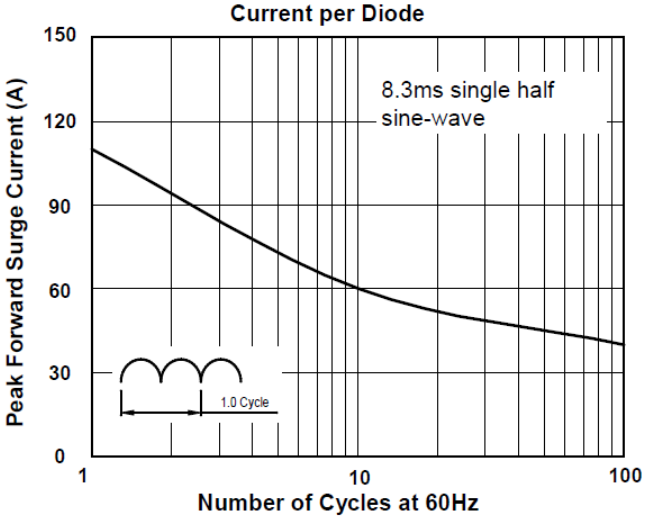


FIG.4 Typical Reverse Characteristics per Diode

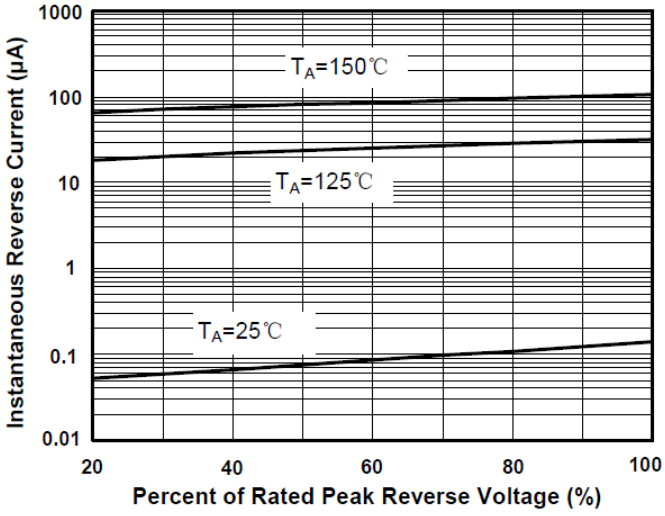
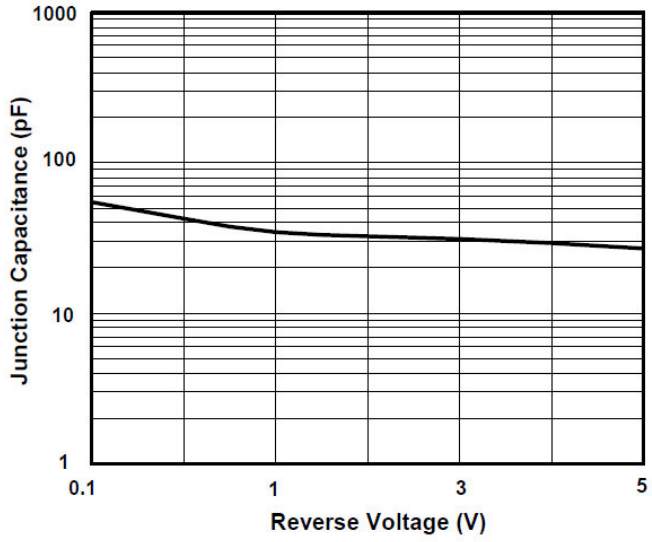


FIG.5 Typical Junction Capacitance per Diode



Suggested PCB printfoot layout