

4.0A Single-Phase GLass Passivated Fast Recovery Bridge Rectifiers

Reverse Voltage - 1000 V

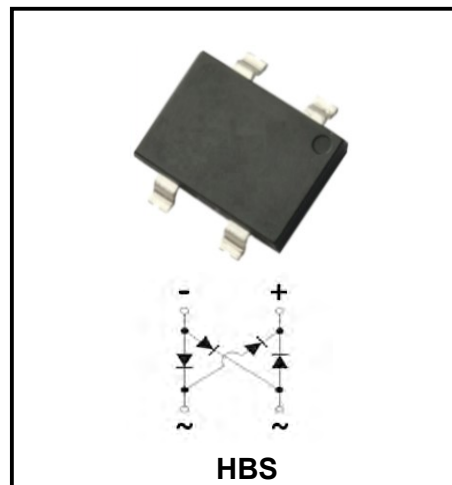
Forward Current - 4.0A

FEATURES

- ◆Glass passivated junction
- ◆The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- ◆Suge overload ratings to 120 amperes peak
- ◆Ideal for printed circuit board application
- ◆High temperature soldering guaranteed 265°C/10 seconds at 5 lbs(2.3kg)tension

MECHANICAL DATA

- ◆Case:HBS
- ◆Terminals:Platde leads solderable per MIL-STD-750, Method 2026
- ◆Polarity:Polarity symbols molded or Marked on body
- ◆Mounting Position:Any
- ◆Weight:0.015ounce,0.38 grams(approx)



Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter		Symbols	RHBS410	Units
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	1000	V
Maximum RMS Voltage		V_{RMS}	700	V
Maximum DC Blocking Voltage		V_{DC}	1000	V
Maximum average forward rectified output current at	$T_A=100^{\circ}C$	$I_{F(AV)}$	4.0	A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)		I_{FSM}	120	A
I^2t Rating for Fusing ($t<8.3ms$)		I^2t	59.8	A ² S
Max Instantaneous forward voltage drop per diode	@ $I_F=1.0A$	V_F	0.93	V
	@ $I_F=2.0A$		1.15	
	@ $I_F=4.0A$		1.30	
Reverse Current at Rated DC Blocking Voltage	$T_A=25^{\circ}C$	I_R	5	μA
	$T_A=125^{\circ}C$		100	
Maximum reverse recovery time ($I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$)		T_{rr}	500	ns
Thermal resistance	Between Junction and Ambient	$R_{\theta JA}$	55	$^{\circ}C/W$
	Between Junction and Lead	$R_{\theta JL}$	14	
	Between Junction and Case	$R_{\theta JC}$	8	
Operating and Storage Temperature Range		T_J, T_{stg}	-55 to +150	$^{\circ}C$

Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED

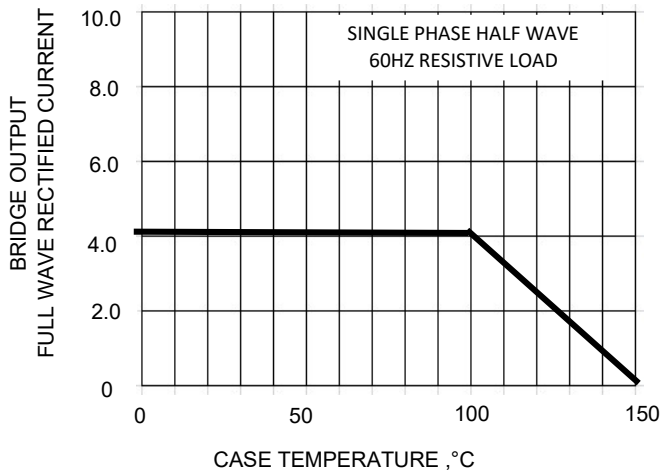


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

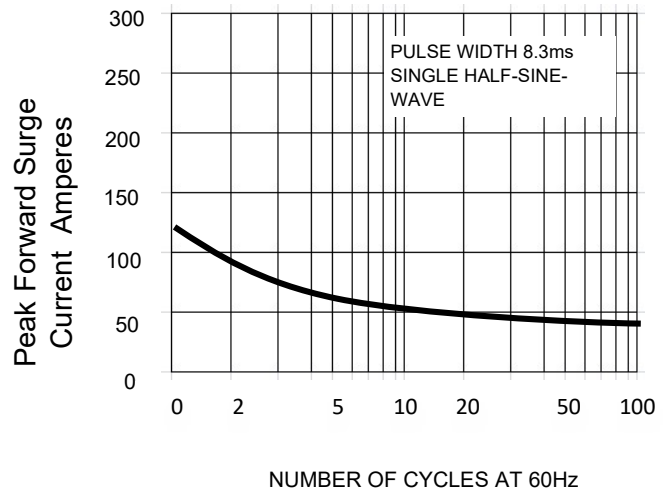


FIG.3-TYPICAL REVERSE CHARACTERISTICS

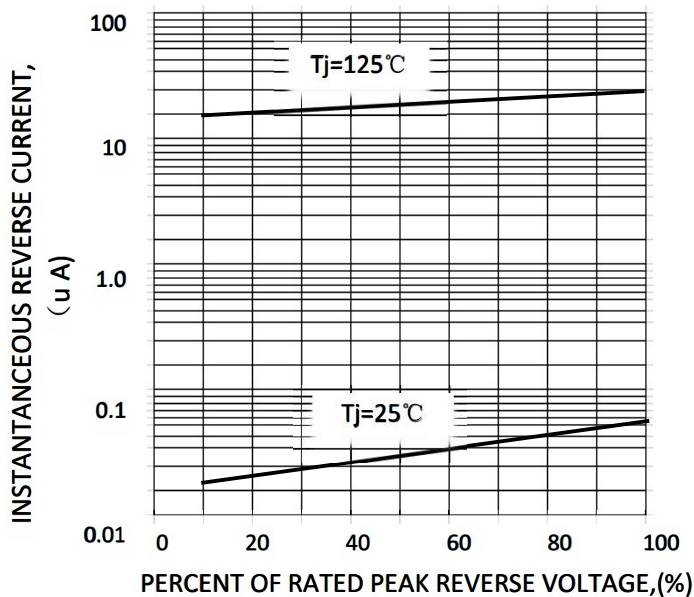


FIG.4-TYPICAL FORWARD CHARACTERISTICS

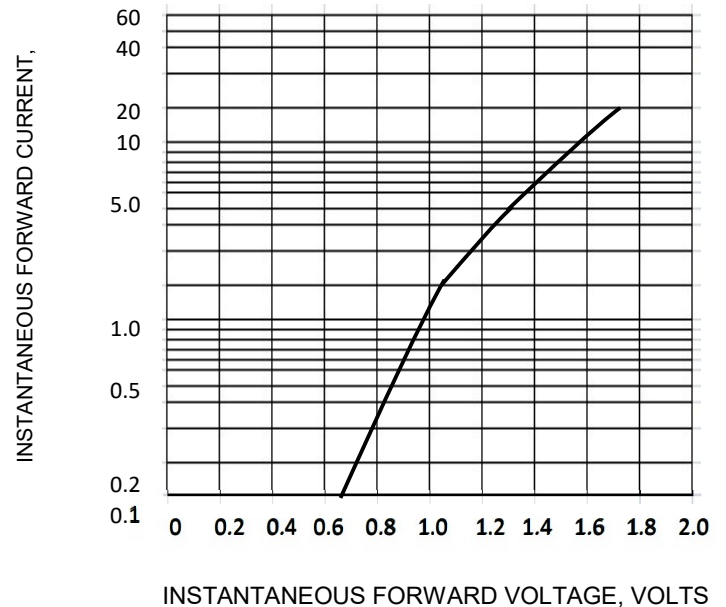
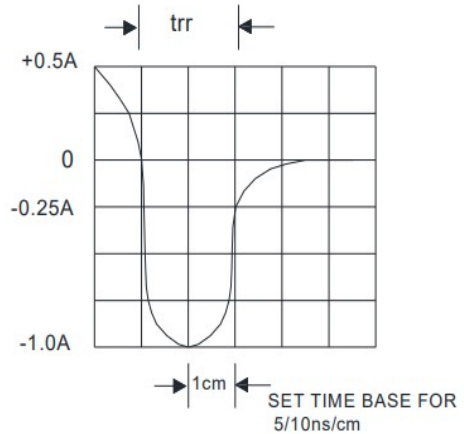
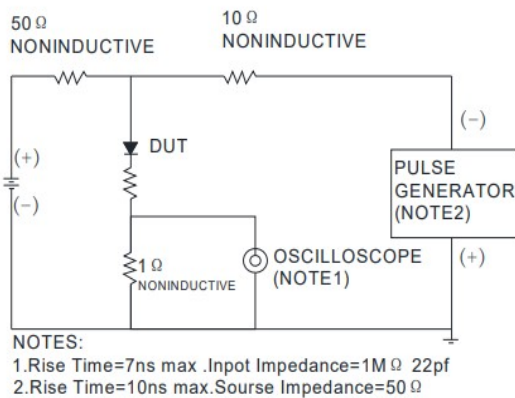
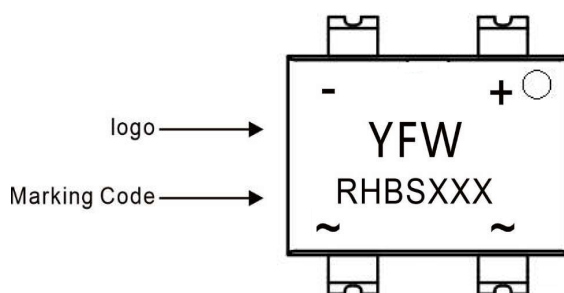


FIG.5-Diagram of circuit and Testing wave form of reverse recovery time



Marking Diagram



Ordering information

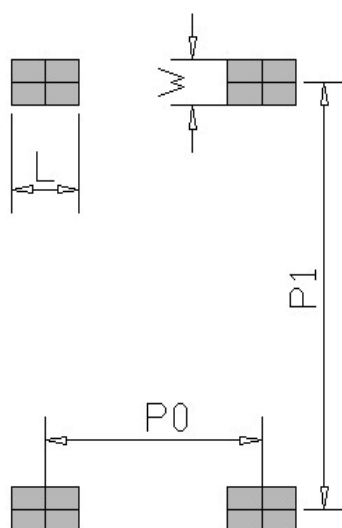
Package	Packing Description	Packing Quantity
HBS	Tape/Reel, 13" reel	2500PCS/Reel 25000PCS/Carton

Package Dimensions

HBS

Dim.	Millimeter(mm)		Dimensions inInch	
	Min.	Max.	Min.	Max.
A	10.0	10.4	0.39	0.41
B	6.9	7.3	0.27	0.28
C	1.4	1.7	0.06	0.07
D	9.6	10.2	0.37	0.40
E	4.9	5.3	0.19	0.20
F	1.3	1.7	0.05	0.06

The recommended mounting pad size



Millimeter(mm)	
DIM	MIN
P0	5.10
P1	9.30
L	1.60
W	1.00

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