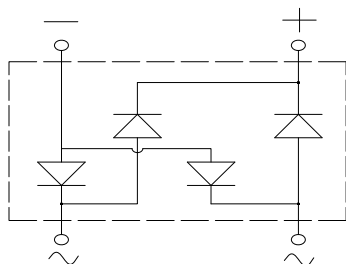


Fast Recovery Bridge Rectifiers



Features

- UL recognition, file #E313149
- Glass passivated chip junction
- Ideal for automated placement
- High surge current capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

Typical Applications

General purpose use in AC/DC bridge full wave rectification for SMPS, lighting ballaster, adapter, battery charger, home appliances, office equipment, and telecommunication applications.

Mechanical Data

- **Package:** YBS2G
Molding compound meets UL 94 V-0 flammability rating, -compliant, Halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

■Maximum Ratings (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	RYBSA3010
Device marking code			RYBSA3010
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	V	1000
Maximum RMS Voltage	V _{RMS}	V	700
Maximum DC blocking Voltage	V _{DC}	V	1000
Average rectified output current @60Hz sine wave, R-load, T _c =110°C	I _O	A	3.0
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T _j =25°C	I _{FSM}	A	90
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T _j =25°C			180
Current squared time @1ms≤t<8.3ms T _j =25°C, Rating of per diode	I ² t	A ² s	33.6
Storage temperature	T _{stg}	°C	-55 ~ +150
Junction temperature	T _j	°C	-55 ~ +150

RYBSA3010

■Electrical Characteristics (T_a=25°C Unless otherwise specified)

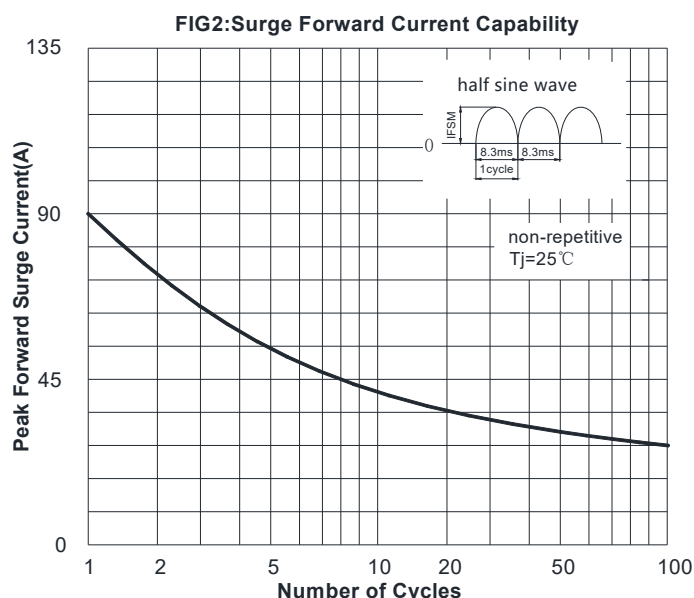
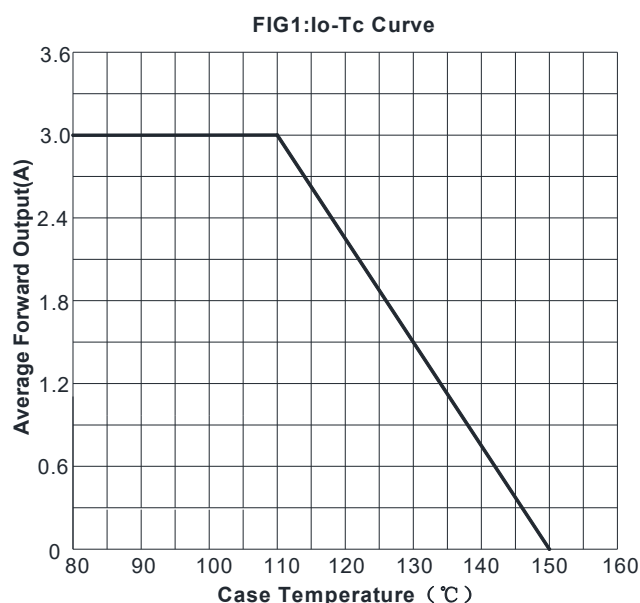
PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	RYBSA3010
Maximum reverse recovery time	t _{rr}	ns	I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	500
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =1.5A	1.3
Maximum DC reverse current at rated DC blocking voltage per diode	I _R	μA	T _j =25°C	5
			T _j =125°C	100
Typical junction capacitance	C _j	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	28

■Thermal Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	RYBSA3010
Typical Thermal Resistance	Between Junction and Ambient	R _{θJA}	°C/W	55
	Between Junction and Lead	R _{θJL}		11
	Between Junction and Case	R _{θJC}		7

Note: Device mounted on P.C.B with 35mm*25mm*1.7mm.

■ Characteristics (Typical)



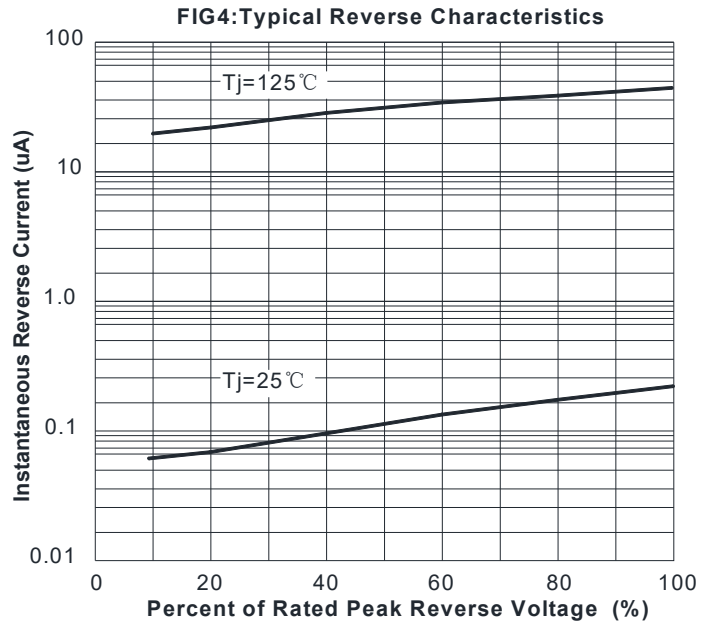
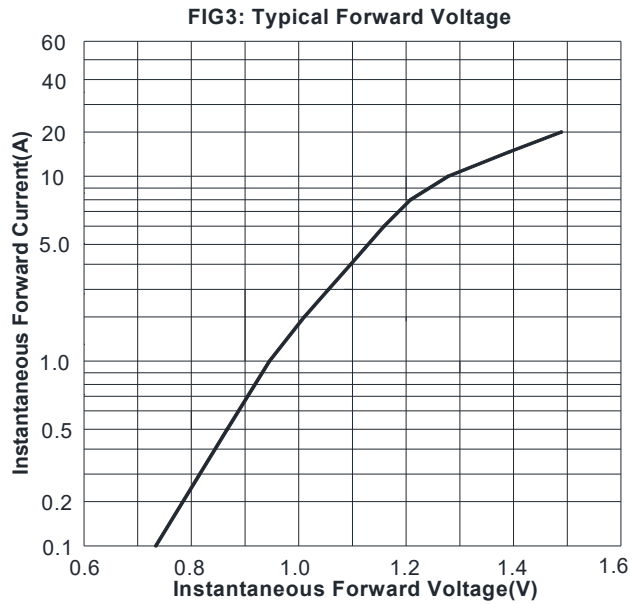
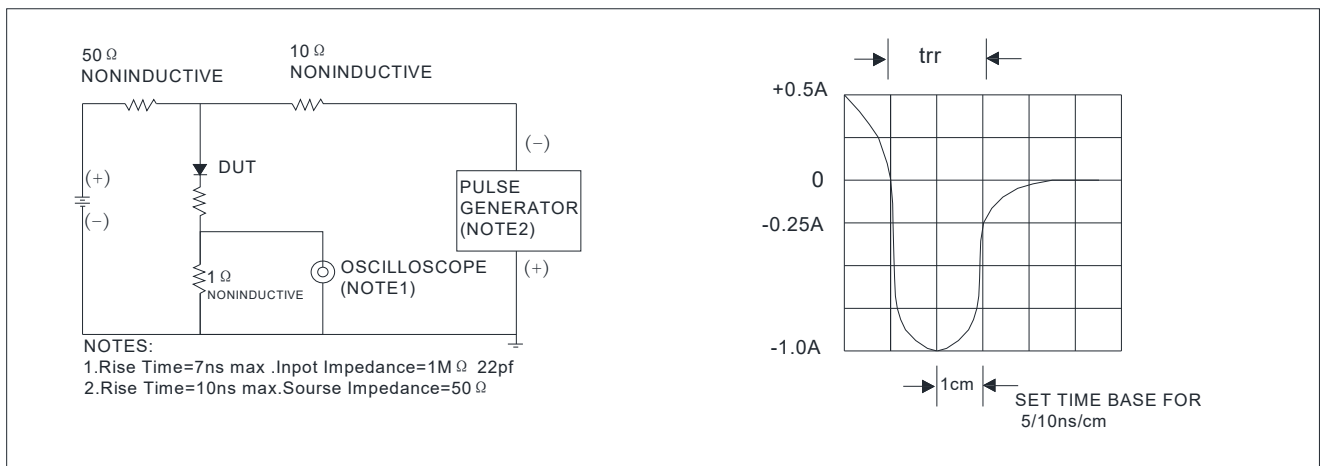
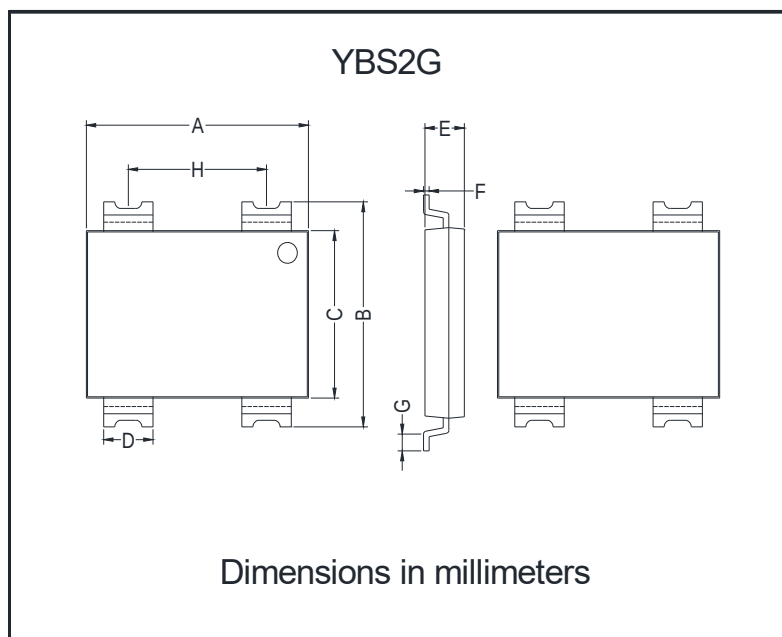


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time

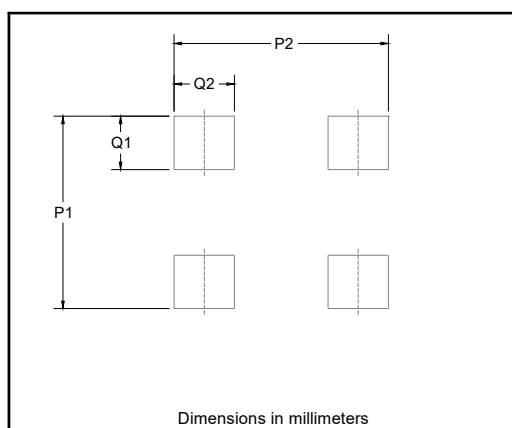


■ Outline Dimensions



YBS2G		
Dim	Min	Max
A	8.6	9.2
B	8.3	8.9
C	6.2	6.6
D	1.85	2.15
E	1.35	1.75
F	0.1	0.3
G	0.4	0.8
H	5.4	5.8

■ Suggested pad layout



YBS2G	
Dim	Min
P1	11
P2	7.8
Q1	2.4
Q2	2.2

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