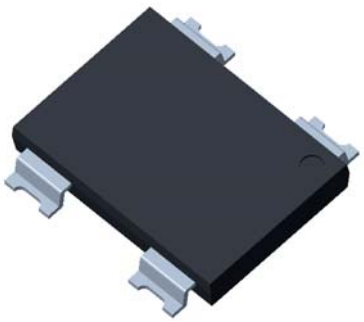
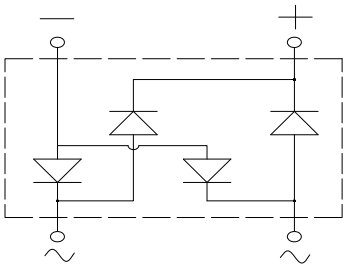
Fast Recovery Bridge Rectifiers





Features

- 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, RoHS-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℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	RYBSA6010
Device marking code			RYBSA6010
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, Tc=60℃	I_O	A	6.0
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃	I_{FSM}	A	150
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃			300
Current squared time @1ms≤t≤8.3ms Tj=25℃，Rating of per diode	I^2t	A^2s	93.4
Storage temperature	T_{stg}	℃	-55 ~ +150
Junction temperature	T_j	℃	-55 ~ +150

■Electrical Characteristics（T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	RYBSA6010
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}=3.0A	1.3
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	μA	T_j =25℃	5
			T_j =125℃	100
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	56

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER		SYMBOL	UNIT	RYBSA6010
Typical Thermal Resistance	Between Junction and Ambient	$R_{\theta J-A}$	℃/W	55
	Between Junction and Lead	$R_{\theta J-L}$		10
	Between Junction and Case	$R_{\theta J-C}$		6

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

■Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
RYBSA6010	F1	Approximate 0.274	2500	/	35000	13” reel

■ Characteristics (Typical)

FIG1:Io-Tc Curve

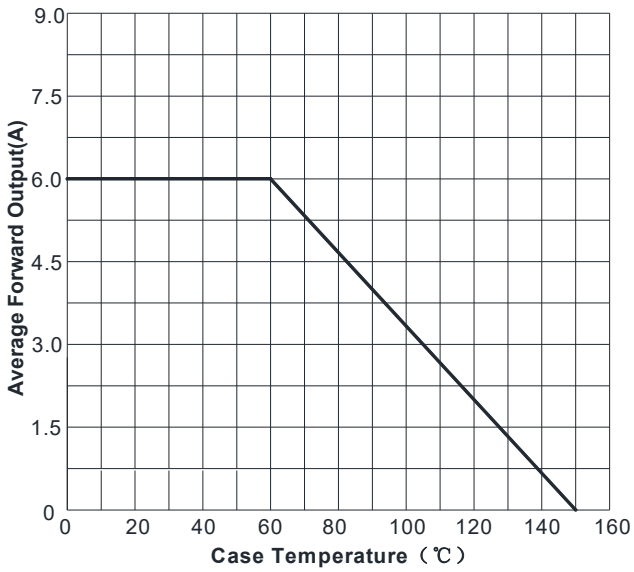


FIG2:Surge Forward Current Capability

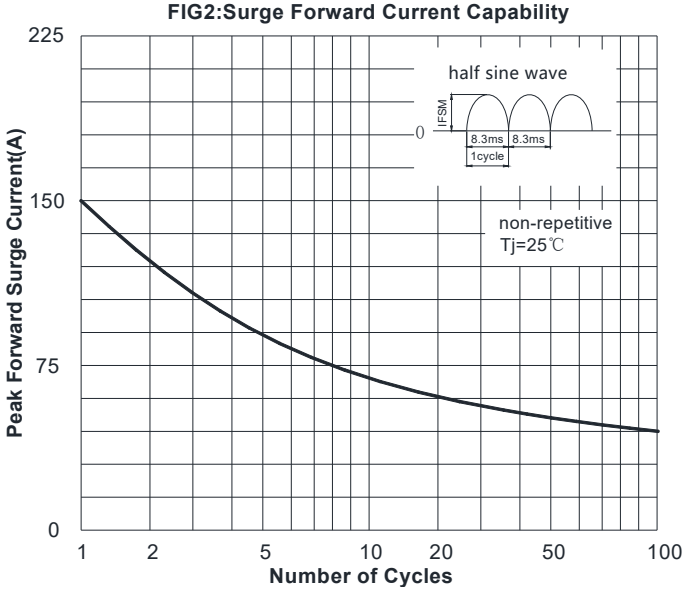


FIG3: Typical Forward Voltage

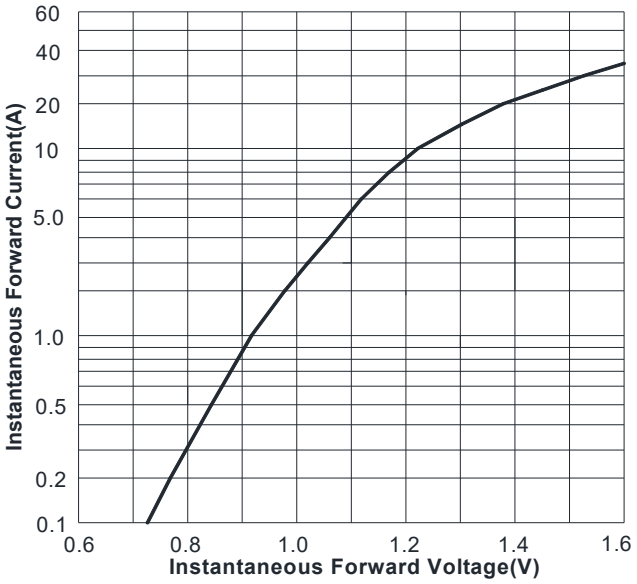


FIG4:Typical Reverse Characteristics

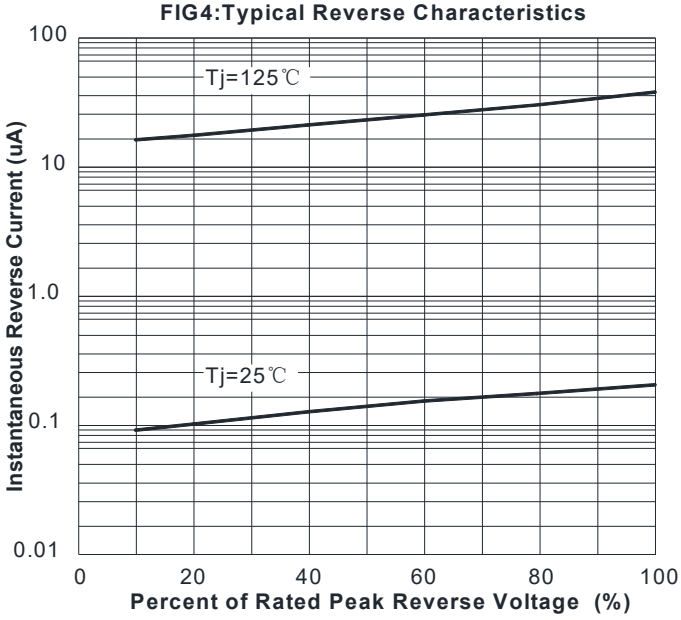
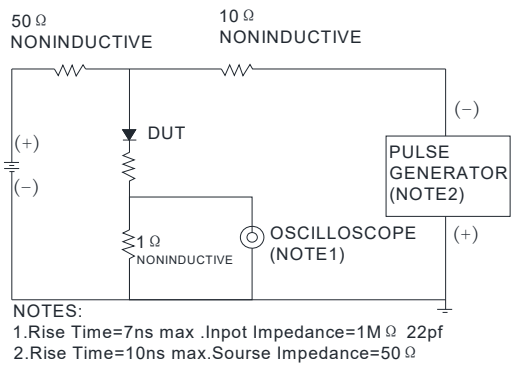
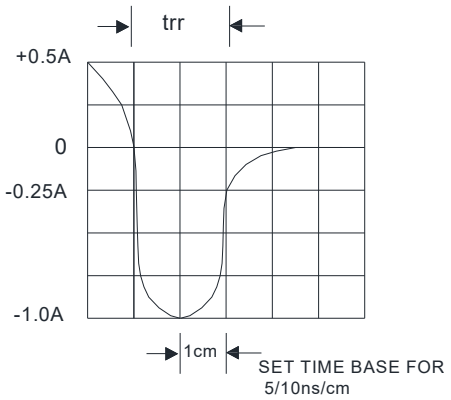
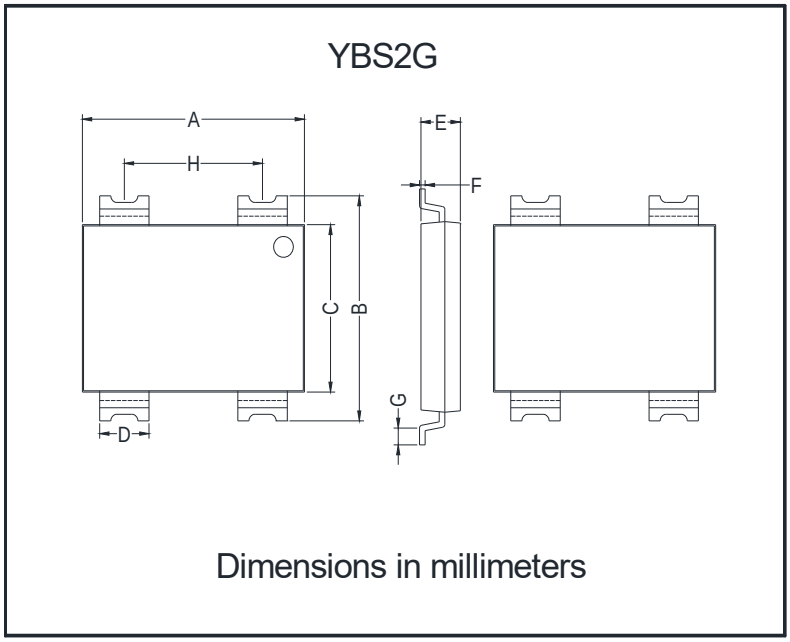


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



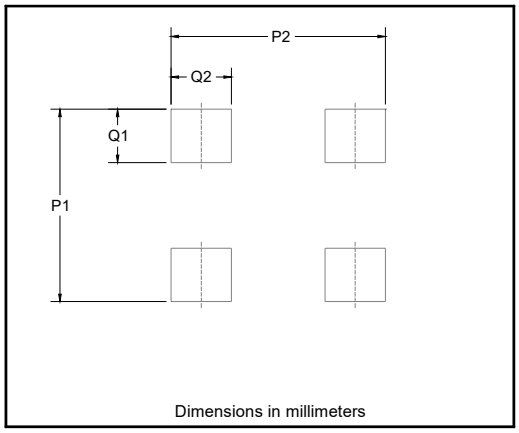


■ Outline Dimensions



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

Notice

All products, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise. Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in STARSEA's terms and conditions of sale for such products, STARSEA assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of STARSEA products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.