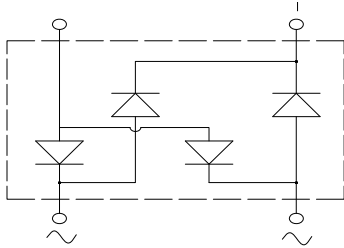
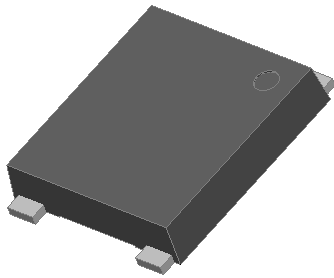


Bridge Rectifiers



Features

- UL recognition, file #E313149
- Ideal for automated placement
- High surge current capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 270 °C & 10S

Typical Applications

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

Mechanical Data

- **Package:** YBS
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **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	RYBS3010
Device marking code			RYBS3010
Repetitive peak reverse voltage	V _{RRM}	V	1000
Average rectified output current @60Hz sine wave, R-load, T _c =110°C	I _O	A	3.0
Surge(non-repetitive)forward current @60Hz sine wave, 1 cycle, T _j =25°C	I _{FSM}	A	90
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

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	RYBS3010
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =3.0A	1.30
Maximum reverse recovery time	T _{rr}	ns	I _F =0.5A, I _R =1.0A, I _{RR} =0.25A	500
Maximum DC reverse current at rated DC blocking voltage per diode @ V _{RM} =V _{RRM}	I _{RRM}	μA	T _j =25°C	5
			T _j =100°C	100



RYBS3010

■ Thermal Characteristics ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	RYBS3010
Thermal Resistance	Between Junction and Ambient,	$R_{\theta J-A}$	$^{\circ}\text{C/W}$	55.0
	Between Junction and Lead	$R_{\theta J-L}$		15.0
	Between Junction and Case	$R_{\theta J-C}$		10.0

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
RYBS3010	F1	Approximate 0.220	3000	6000	42000	13" reel

■ Characteristics(Typical)

FIG1: I_o - T_c Curve

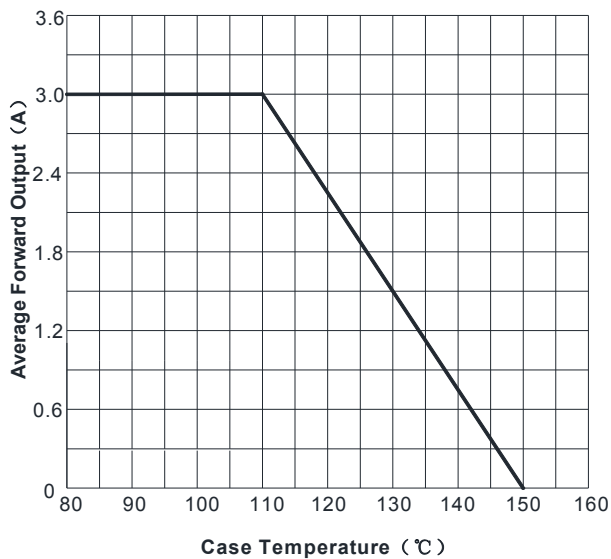


FIG2: Surge Forward Current Capability

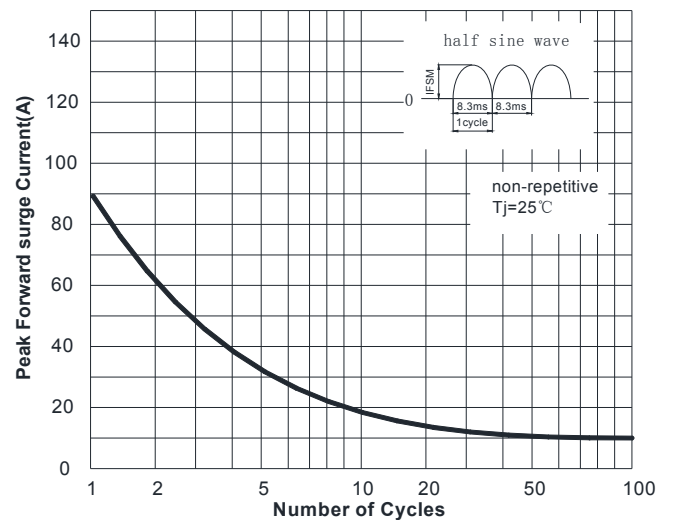


FIG3: Forward Voltage

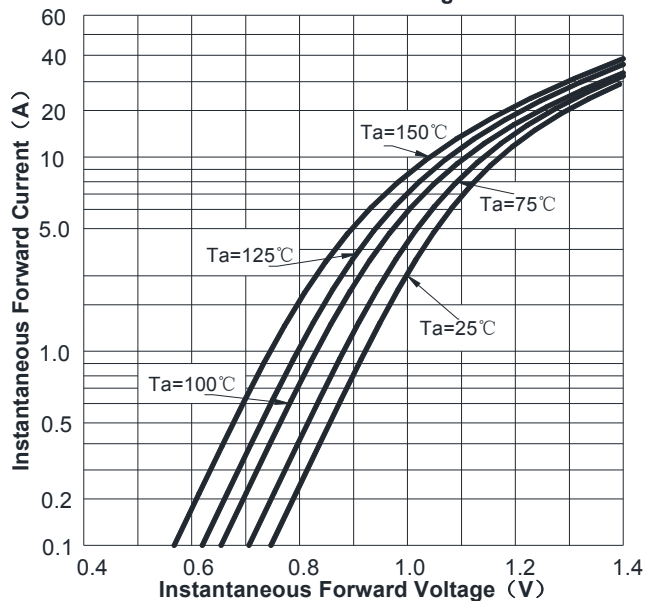


FIG4: Typical Reverse Characteristics

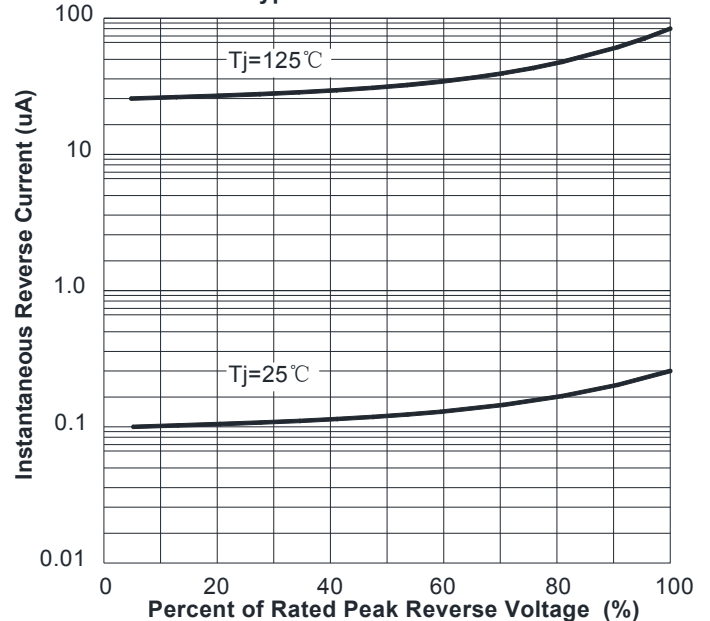
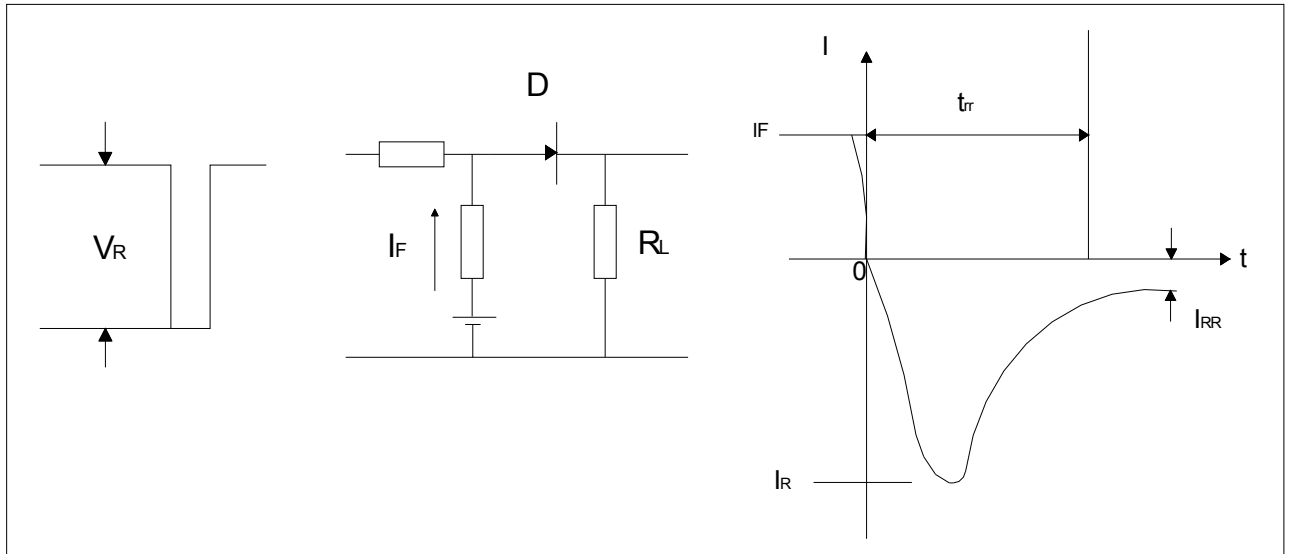
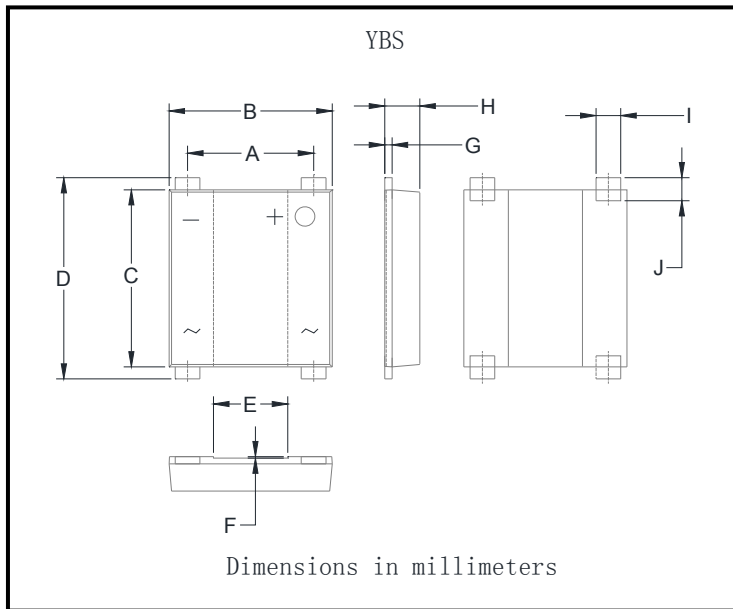


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time

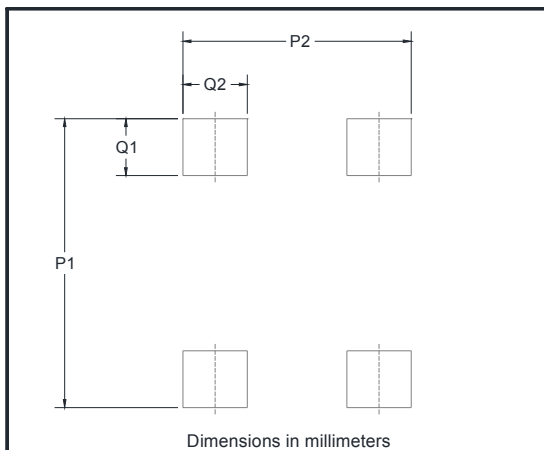


■ Outline Dimensions



YBS		
Dim	Min	Max
A	5.00	5.20
B	6.50	6.70
C	7.20	7.40
D	7.90	8.60
E	2.90	3.10
F	0.04	0.08
G	0.27	0.40
H	1.30	1.50
I	0.95	1.15
J	0.70	1.05

■ Suggested pad layout



Dim	Min
P1	9.15
P2	7.10
Q1	1.80
Q2	2.00



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