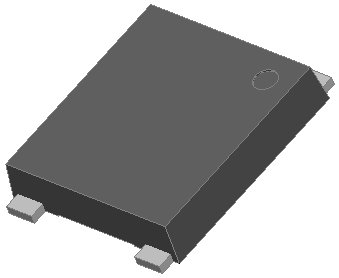
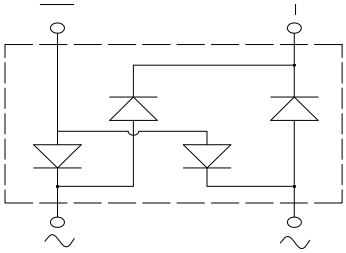
Bridge Rectifiers





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 260 °C

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, 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	SYMBO	UNIT	RYBS20005	RYBS2001	RYBS2002	RYBS2004	RYBS2006	RYBS2008	RYBS2010
Device marking code			RYBS20005	RYBS2001	RYBS2002	RYBS2004	RYBS2006	RYBS2008	RYBS2010
Repetitive peak reverse voltage	V_{RRM}	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load, Tc=100℃	I_O	A	2.0						
Surge(non-repetitive)forward current @60HZ sine wave, 1 cycle, Tj=25℃	I_{FSM}	A	75						
Current squared time @1ms≤t≤8.3ms Tj=25℃， Rating of per diode	I^2t	A^2s	23						
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	RYBS20005	RYBS2001	RYBS2002	RYBS2004	RYBS2006	RYBS2008	RYBS2010
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=2.0A	1.30						
Maximum reverse recovery time	Trr	ns	I_F=0.5A,I_R=1.0A, I_{RR}=0.25A	150				250	500	
Maximum DC reverse current at rated DC blocking voltage per diode@ VRM=VRRM	I_{RRM}	μA	Tj=25℃	5						
			Tj=100℃	100						

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

PARAMETER		SYMBOL	UNIT	RYBS20005	RYBS2001	RYBS2002	RYBS2004	RYBS2006	RYBS2008	RYBS2010
Thermal Resistance	Between Junction and Ambient,	$R_{\theta J-A}$	℃/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)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
RYBS20005-RYBS2010	F1	Approximate 0.218	3000	6000	42000	13” reel

■ Characteristics (Typical)

FIG1:Io-Tc Curve

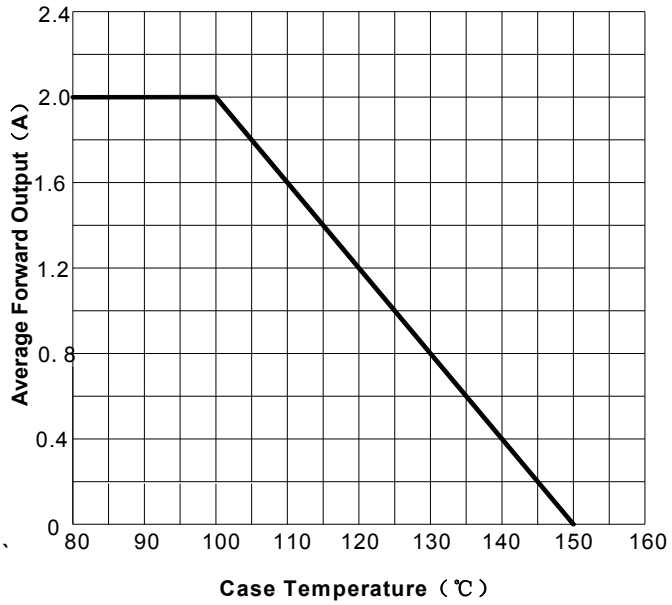


FIG2:Surge Forward Current Capability

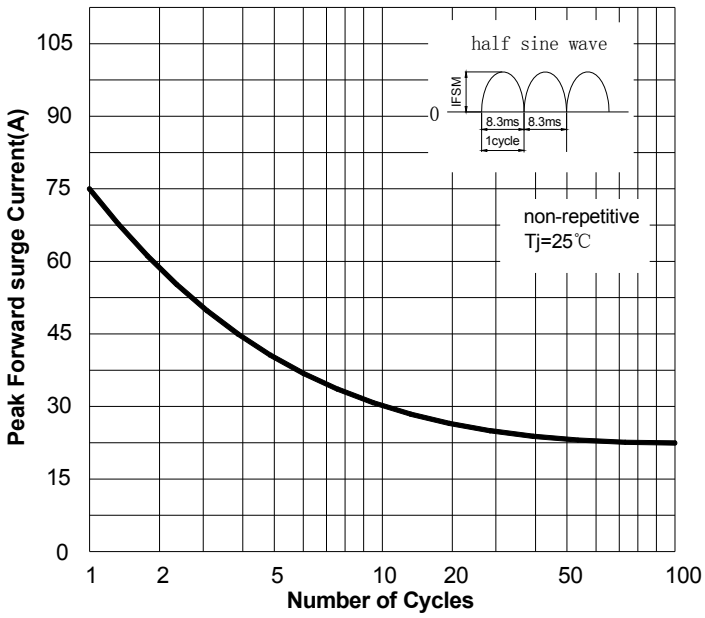


FIG3: Forward Voltage

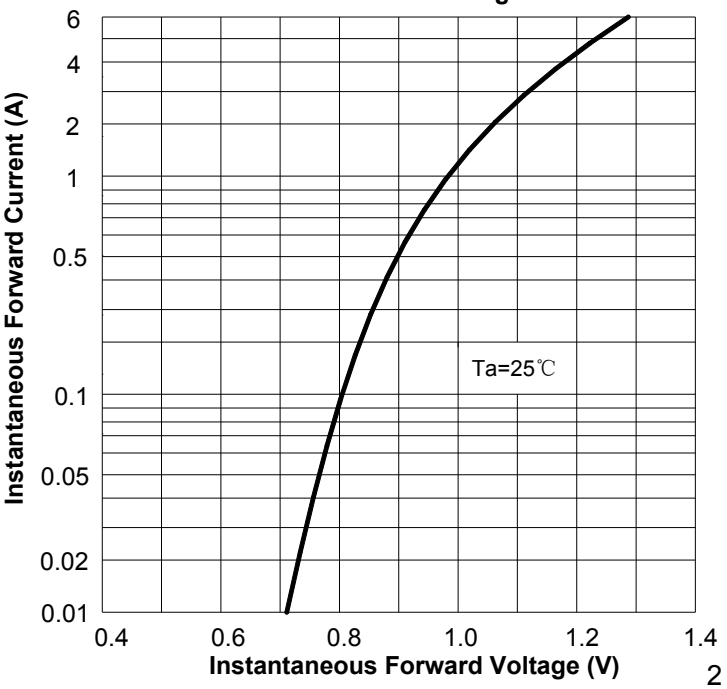


FIG4:Typical Reverse Characteristics

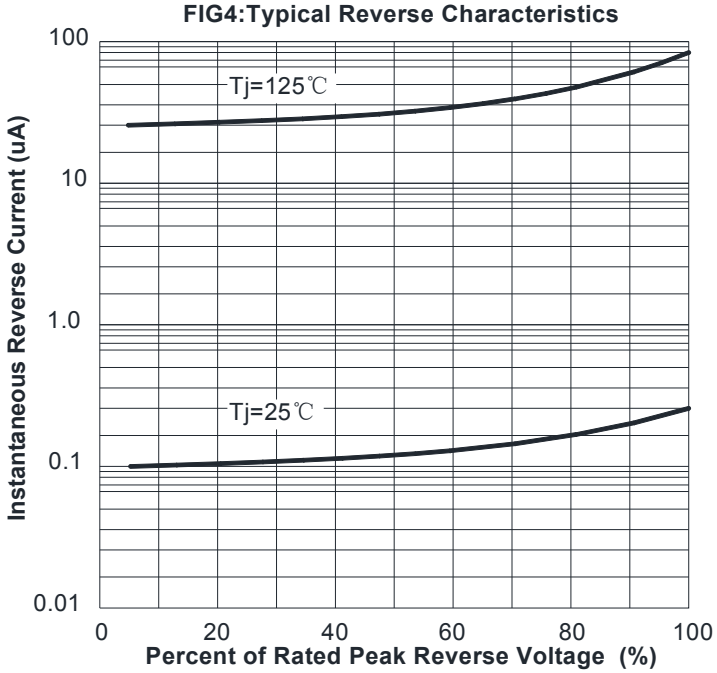
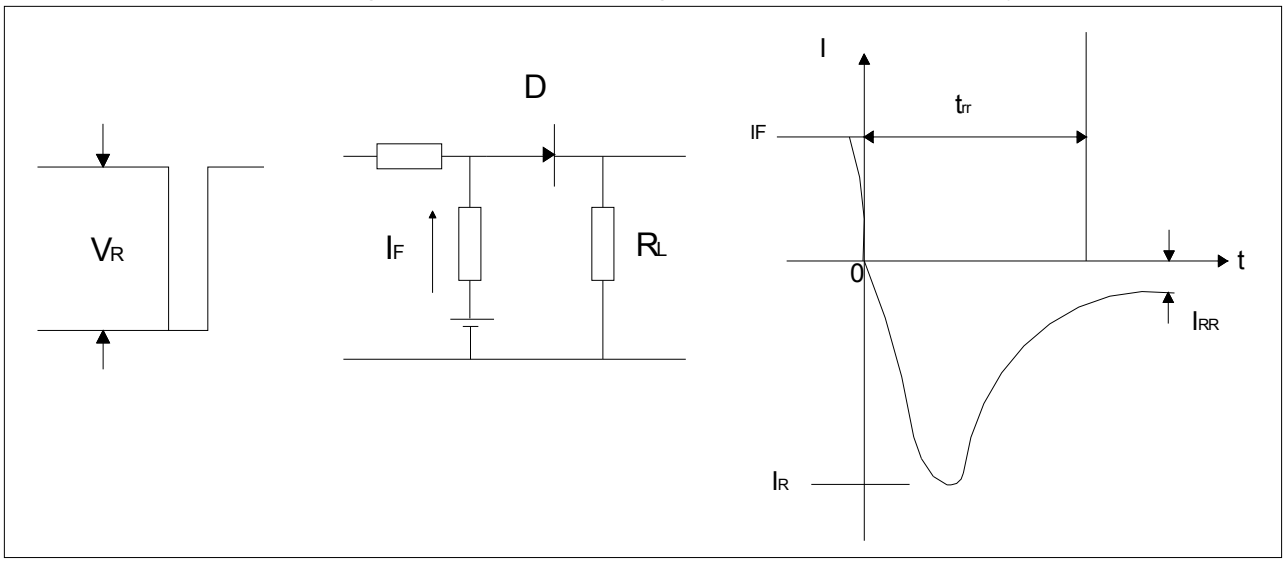
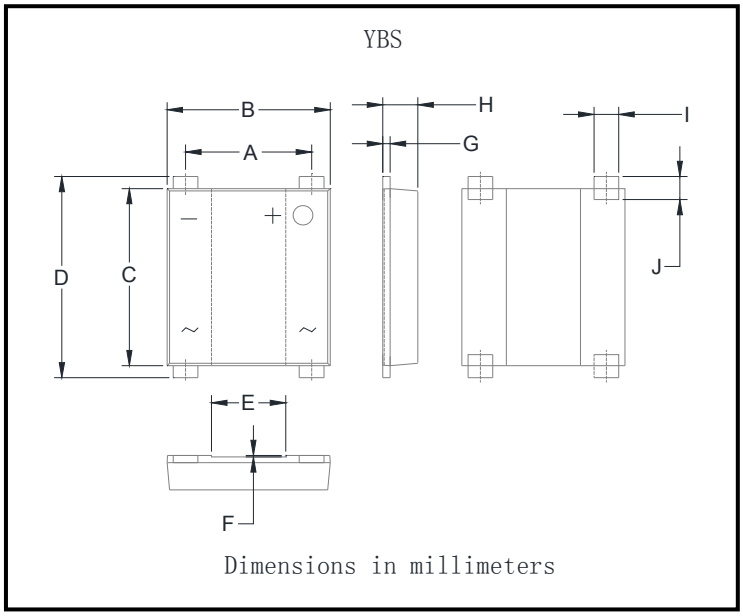


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time

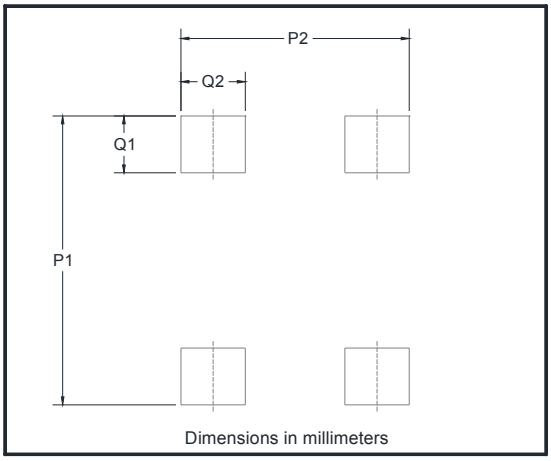


■ Outline Dimensions



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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