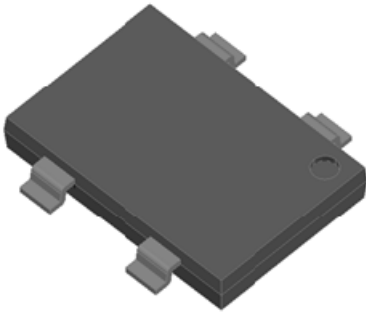


Bridge Rectifiers

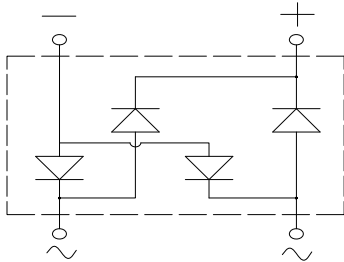


Features

- 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:** YBS3
- 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°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	RYBSM8010
Device marking code			RYBSM8010
Maximum Repetitive Peak Reverse Voltage	VRRM	V	1000
Maximum RMS Voltage	VRMS	V	700
Maximum DC blocking Voltage	VDC	V	1000
Average rectified output current @60Hz sine wave, R-load, T _c =30	I _O	A	8.0
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T _j =25	IFSM	A	200
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T _j =25			400
Current squared time @1ms t 8.3ms T _j =25, Rating of per diode	I ² t	A ² s	166
Storage temperature	T _{stg}		-55 ~ +150
Junction temperature	T _j		-55 ~ +150

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	RYBSM8010
Maximum reverse recovery time	t _r	ns	I _F =0.5A, I _R =1.0A, I _r =0.25A	500
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =4.0A	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	C _j	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	68



RYBSM8010

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

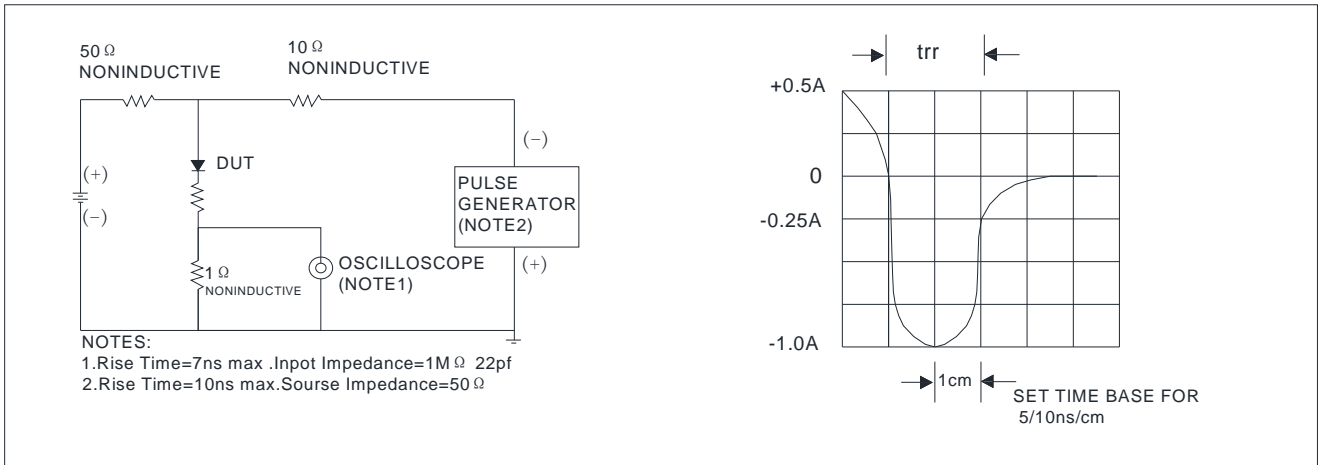
PARAMETER		SYMBOL	UNIT	RYBSM8010
Typical Thermal Resistance	Between Junction and Ambient	R _{J-A}	/W	55
	Between Junction and Lead	R _{J-L}		14
	Between Junction and Case	R _{J-C}		8

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

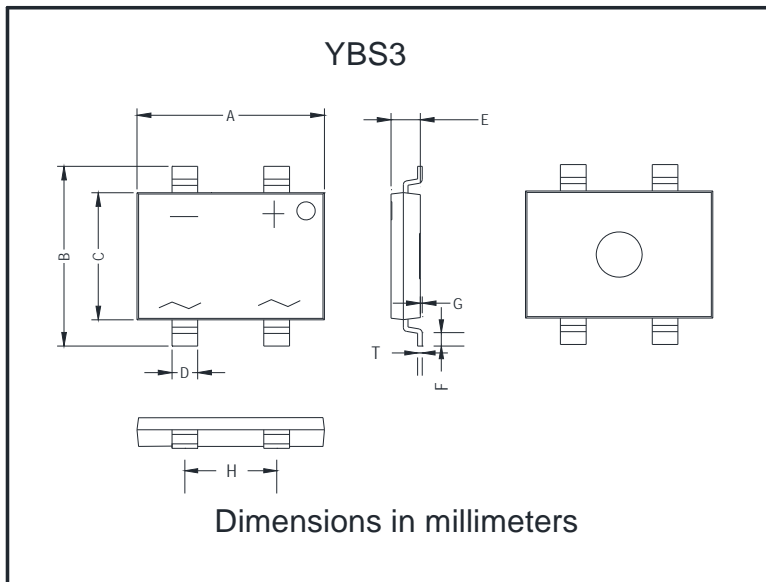
Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
RYBSM8010	F1	Approximate 0.38	1800	3600	25200	13" Reel

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

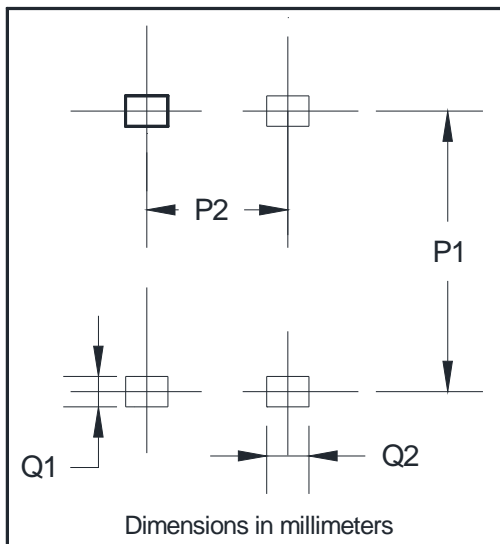


Outline Dimensions



YBS3		
Dim	Min	Max
A	10.00	10.40
B	9.70	10.10
C	6.80	7.20
D	1.3	1.5
E	1.4	1.8
F	0.5	1.1
G	0	0.15
H	4.9	5.1
T	0.20	0.30

Suggested pad layout



YBS3	
Dim	Min
P1	9.25
P2	5.00
Q1	1.00
Q2	1.5



Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.