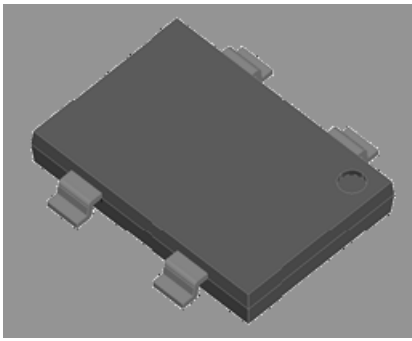


## Bridge Rectifiers

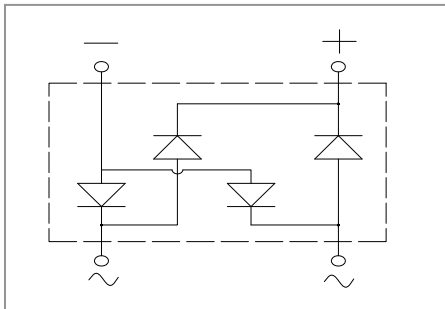


### Features

- 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<sub>a</sub>=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 <sub>c</sub> =30	I <sub>O</sub>	A	8.0
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T <sub>j</sub> =25	IFSM	A	200
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T <sub>j</sub> =25			400
Current squared time @1ms t 8.3ms T <sub>j</sub> =25, Rating of per diode	I <sup>2</sup> t	A <sup>2</sup> s	166
Storage temperature	T <sub>stg</sub>		-55 ~ +150
Junction temperature	T <sub>j</sub>		-55 ~ +150

### Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	RYBSM8010
Maximum reverse recovery time	t <sub>r</sub>	ns	I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>r</sub> =0.25A	500
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>FM</sub> =4.0A	1.3
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>R</sub>	μA	T <sub>j</sub> =25	5
			T <sub>j</sub> =125	100
Typical junction capacitance	C <sub>j</sub>	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	68



## RYBSM8010

### Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

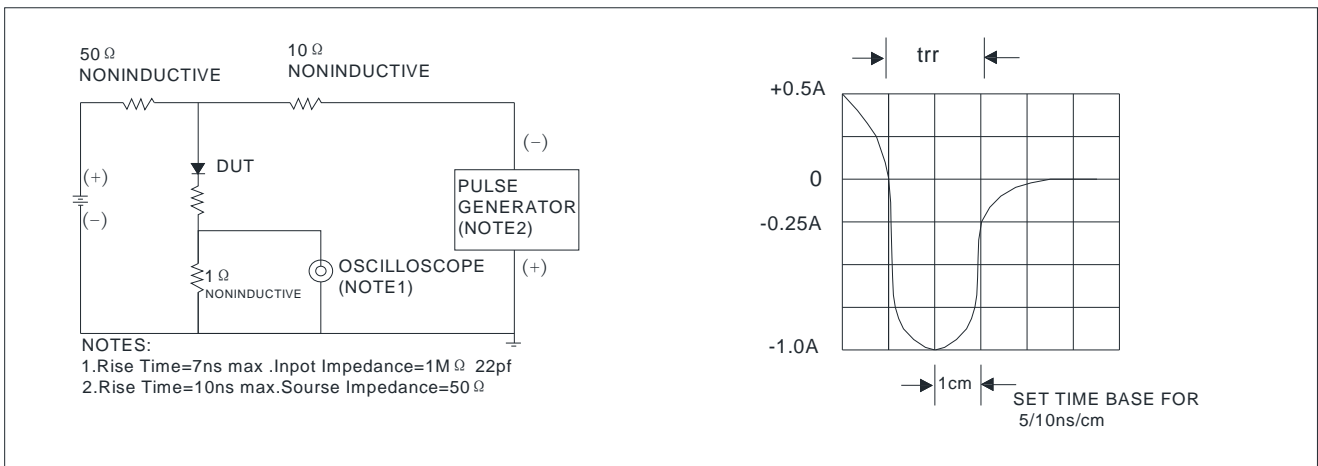
PARAMETER		SYMBOL	UNIT	RYBSM8010
Typical Thermal Resistance	Between Junction and Ambient	R <sub>J-A</sub>	/W	55
	Between Junction and Lead	R <sub>J-L</sub>		14
	Between Junction and Case	R <sub>J-C</sub>		8

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

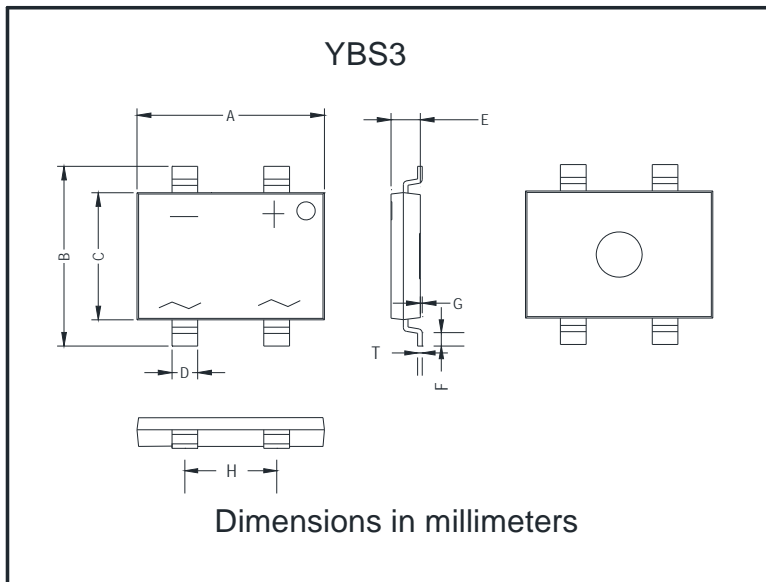
### Ordering Information (Example)

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

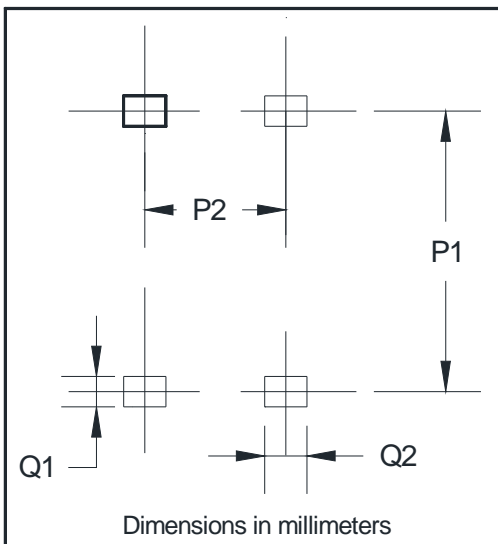


## Outline Dimensions



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



# RYBSM8010

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## Disclaimer

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The product listed here is listed here. # i 4 this# & i i T dn s d e A