

Bridge Rectifiers

Reverse Voltage - 50 to 1000 V

Forward Current - 15A

FEATURES

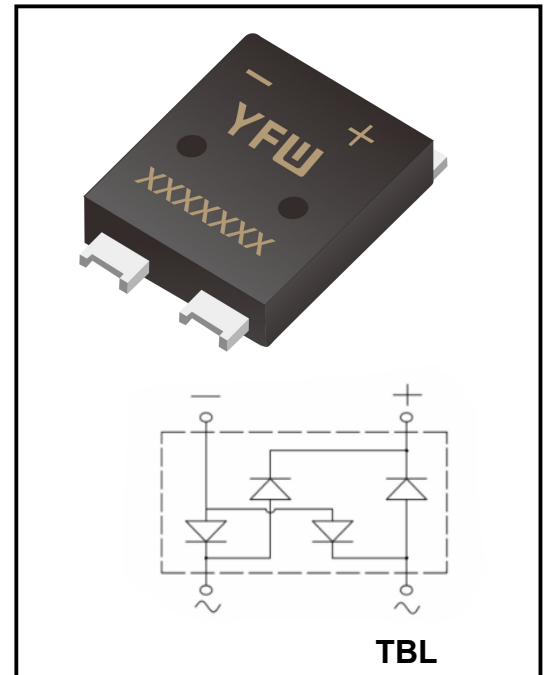
- ◆Glass passivated junction
- ◆Ideal for printed circuit board application
- ◆High surge current capability
- ◆Meets MSL level1,per J-STD-020, LF maximum peak of 260°C

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

- ◆Case: TBL
- ◆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 (Ta=25°C Unless otherwise specified)

Parameter	Symbol	TBL15005	TBL1501	TBL1502	TBL1504	TBL1506	TBL1508	TBL1510	unit		
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V		
Maximum RMS bridge input voltage	V_{RMS}	35	70	140	280	420	560	700	V		
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V		
Average rectified output current @60HZ sine wave, R-load, Tc=118°C	I_o	15								A	
Max Instantaneous forward voltage drop per diode	V_F	$I_{FM}=1.0A$	0.82							V	
		$I_{FM}=7.5A$	0.93								
		$I_{FM}=15.0A$	0.98								
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, Tj=25°C	I_{FSM}	400								A	
Forward Surge Current (Non-repetitive) @1ms square wave, 1 cycle, Tj=25°C		800									
Maximum DC reverse current at ratde T _A =25°C	I_R	5								μA	
DC blocking voltage per element T _A =125°C		100									
Rating for fusing(t<8.3ms)	I^2t	664.0								A ² sec	
Thermal resistance	Between Junction and Ambient	$R_{θJA}$	50								°C/W
	Between Junction and Lead	$R_{θJL}$	10								
	Between Junction and Case	$R_{θJC}$	2								
Operating Temperature Range	T_J	-55 ~ +150								°C	
Storage Temperature Range	T_{STG}	-55 ~ +150								°C	

Characteristics (Typical)

FIG1:Io-Tc Curve

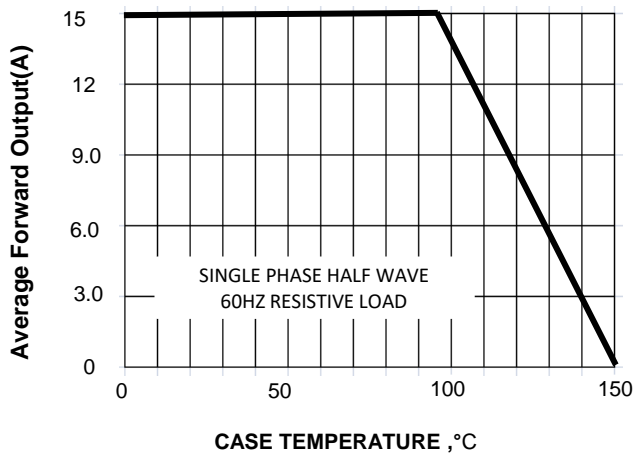


FIG2: Surge Forward Current Capability

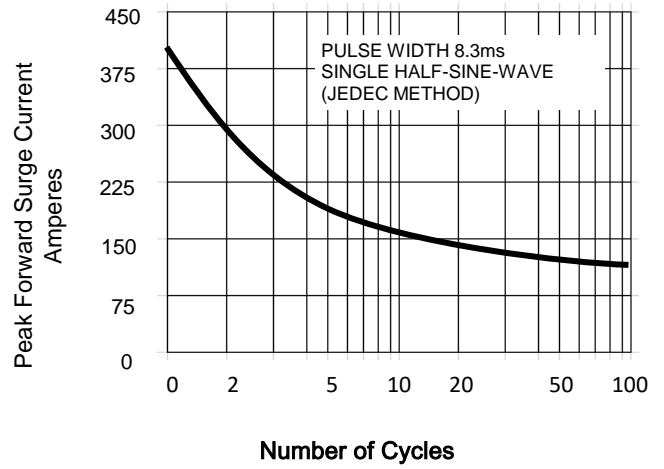


FIG3: Typical Reverse Characteristics

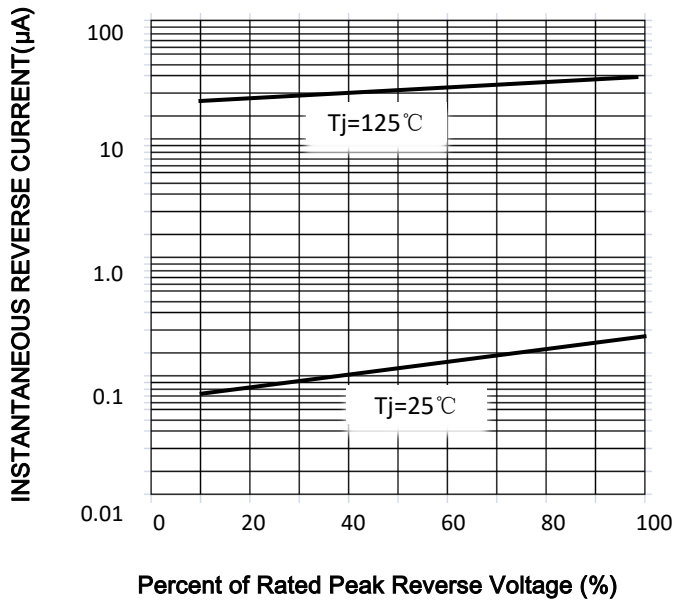
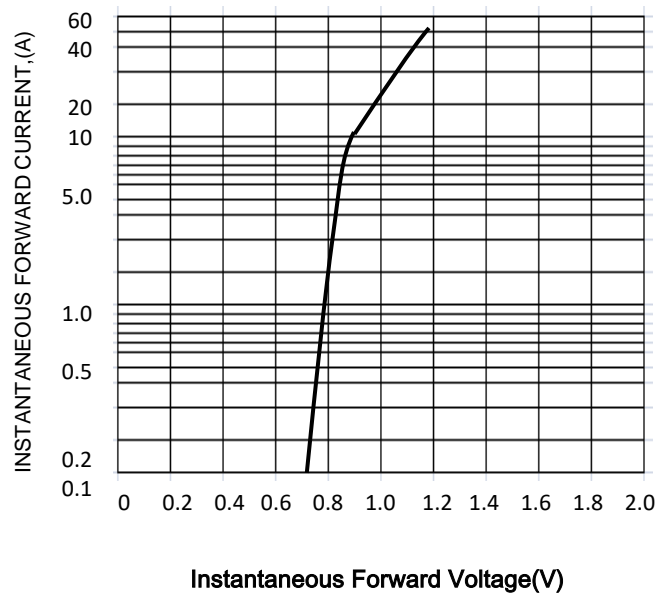
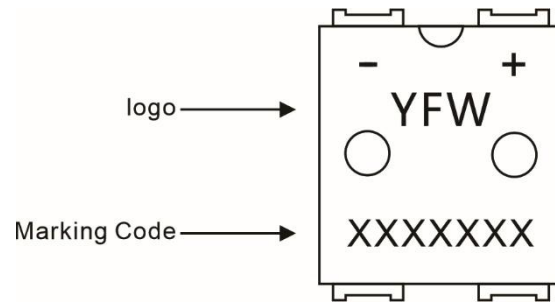


FIG4: Typical Forward Voltage



Marking Diagram

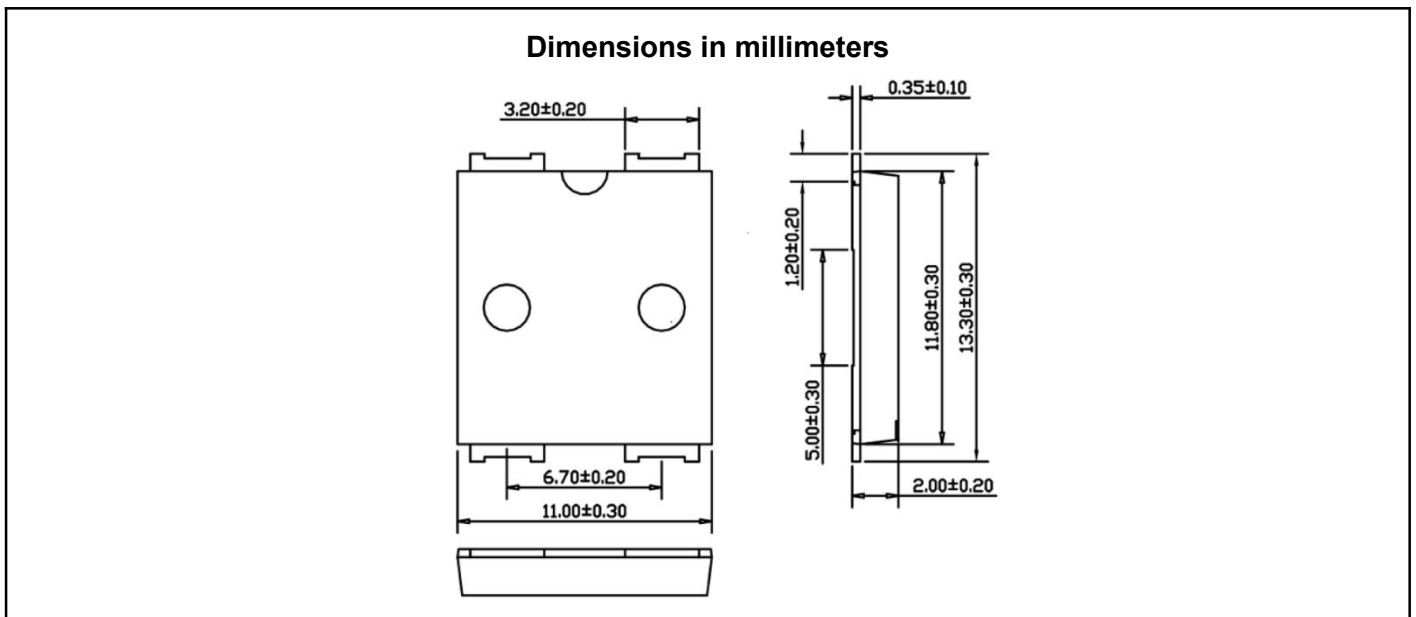


Ordering information

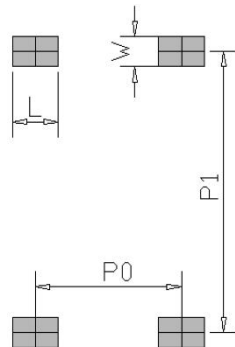
Package	Packing Description	Packing Quantity
TBL	Tape/Reel, 13" reel	1500Pcs/Reel 3000Pcs/Box 12000Pcs/Carton

Package Dimensions

TBL



The recommended mounting pad size



Unit:mm	
DIM	MIN
P0	6.70
P1	12.10
L	3.20
W	1.20

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