

Features

- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix Designates Compliant. See Ordering Information)
- High Surge Forward Current Capability
- Halogen Free. "Green" Device (Note 2)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 2°C/W Junction to Case(Note3)
- Typical Thermal Resistance: 10°C/W Junction to Lead(Note3)
- Typical Thermal Resistance: 50°C/W Junction to Ambient(Note3)

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
TBN1010	TBN1010	1000V	700V	1000V

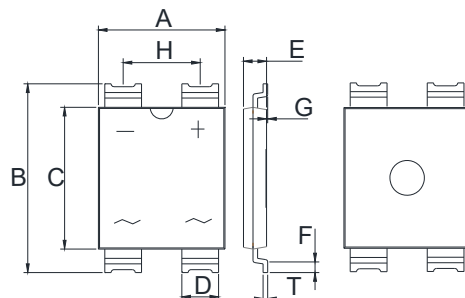
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	10A	$T_C = 110^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	250A	8.3ms, Half Sine Wave
		500A	1ms, Square Wave
Maximum Instantaneous Forward Voltage	V_F	1.0V	$I_{FM} = 5A; T_J = 25^\circ\text{C}$
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	5µA 100µA	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Rating for Fusing	I^2t	260A ² S	1ms ≤ t ≤ 8.3ms
Typical Junction Capacitance	C_J	85pF	Measured at 1.0MHz, $V_R = 4.0V$

- Note: 1. High Temperature Solder Exemption Applied, See EU Directive Annex Notes 7a.
 2. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
 3. Thermal Resistance mounted on P.C.B with 30mm*15mm*1.6mm.

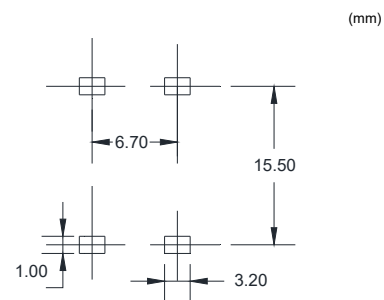
10 Amp Single Phase Glass Passivated Bridge Rectifier 1000 Volts

TBN



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.421	0.445	10.70	11.30	
B	0.624	0.656	15.85	16.65	
C	0.461	0.484	11.70	12.30	
D	0.120	0.132	3.05	3.35	
E	0.071	0.087	1.80	2.20	
F	0.028	0.043	0.70	1.10	
G	-	0.008	-	0.20	
H	0.258	0.270	6.55	6.85	
T	0.014	0.022	0.35	0.55	

Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Forward Current Derating Curve

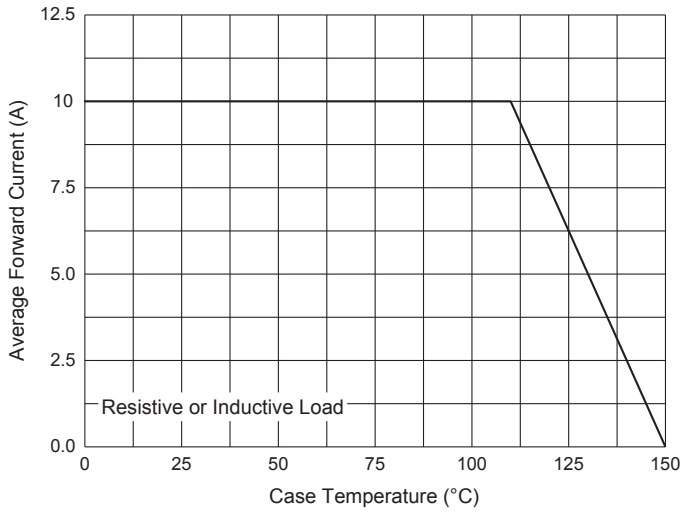


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

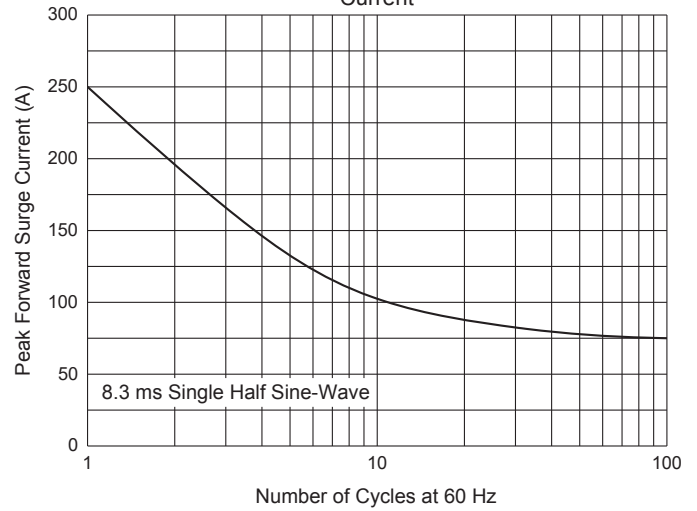


Fig. 3 - Typical Instantaneous Forward Characteristics

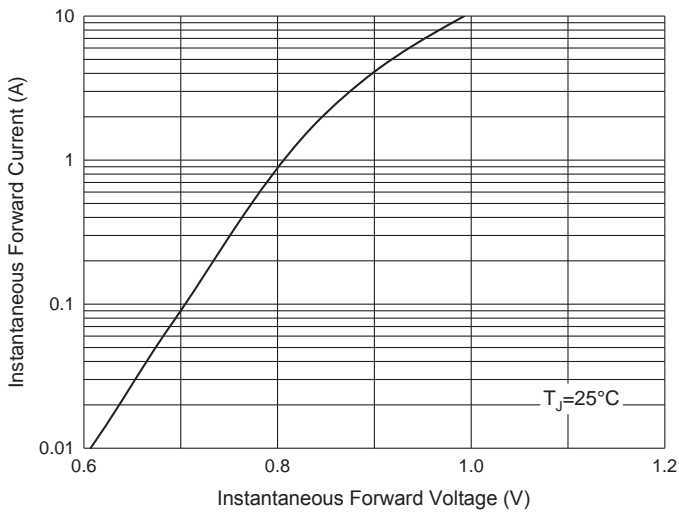
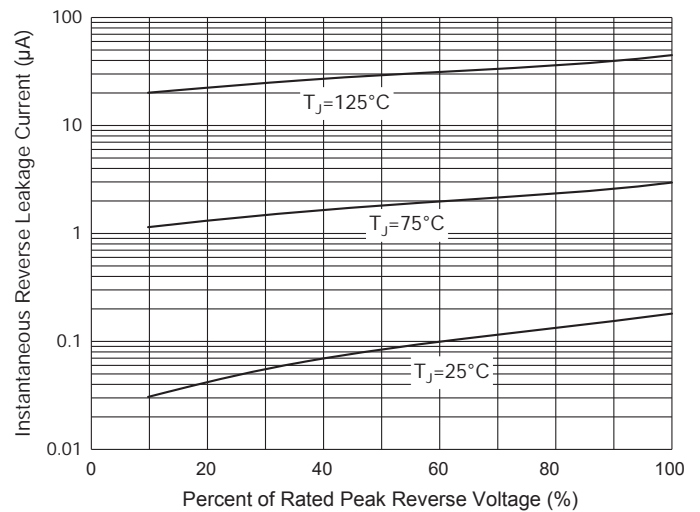


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel;1.5Kpcs/Reel

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