

Features

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

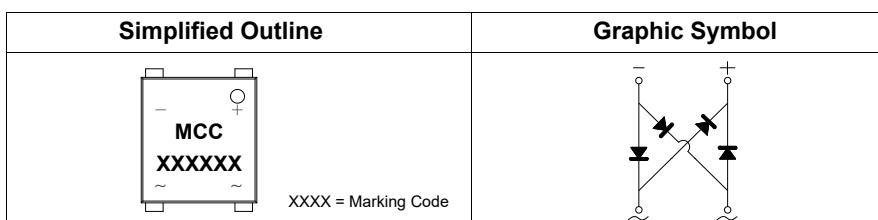
Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value							Unit
		TBS 22A	TBS 22B	TBS 22D	TBS 22G	TBS 22J	TBS 22K	TBS 22M	
Peak Repetitive Reverse Voltage	V _{RRM}								
Working Peak Reverse Voltage	V _{RWM}	50	100	200	400	600	800	1000	V
DC Blocking Voltage	V _R								
RMS Reverse Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Average Rectified Forward Current @ T _C =110°C	I _{F(AV)}	2.2							A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I _{FSM}	90							A
Non-Repetitive Peak Surge Current @ 1ms Square Wave		180							
Current Squared Time @1ms≤t≤8.3ms	I ² t	33							A ² s

Marking Code

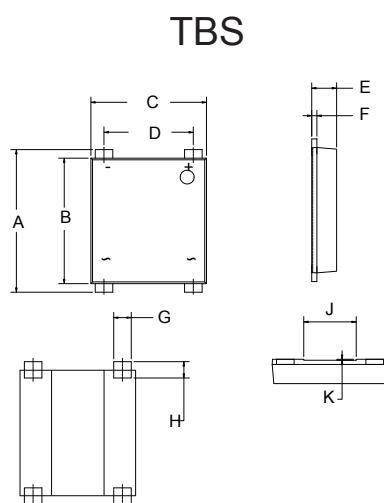
Part Number	Marking Code
TBS22A	TBS22A
TBS22B	TBS22B
TBS22D	TBS22D
TBS22G	TBS22G
TBS22J	TBS22J
TBS22K	TBS22K
TBS22M	TBS22M

Internal Structure



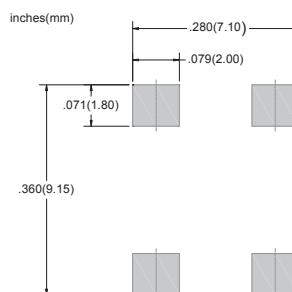
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
 2. High temperature solder exemption applied, see EU directive annex 7a.

2.2 Amp Single Phase Bridge Rectifier 50 to 1000 Volts



DIM	DIMENSIONS				NOTE	
	INCHES		MM			
	MIN	MAX	MIN	MAX		
A	0.311	0.339	7.90	8.60		
B	0.283	0.291	7.20	7.40		
C	0.256	0.264	6.50	6.70		
D	0.197	0.205	5.00	5.20		
E	0.051	0.059	1.30	1.50		
F	0.011	0.016	0.27	0.40		
G	0.037	0.045	0.95	1.15		
H	0.028	0.041	0.70	1.05		
J	0.114	0.122	2.90	3.10		
K	0.0015	0.003	0.04	0.08		

Suggested Solder Pad Layout



Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
T _J	Operating Junction Temperature Range		-55		150	°C
T _{stg}	Storage Temperature Range		-55		150	°C
R _{th(J-L)}	Thermal Resistance from Junction to Case	Note 1		10		°C/W
R _{th(J-A)}	Thermal Resistance from Junction to Lead	Note 1		15		°C/W
R _{th(J-A)}	Thermal Resistance from Junction to Ambient	Note 1		55		°C/W

Note:

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

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V _F	I _F =1.1A;T _J =25°C			0.95	V
Reverse Current	I _R	at Rated V _R ;T _J =25°C at Rated V _R ;T _J =125°C			5 100	uA
Junction Capacitance	C _J	V _R =4V;f=1MHz;T _J =25°C		35		pF

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

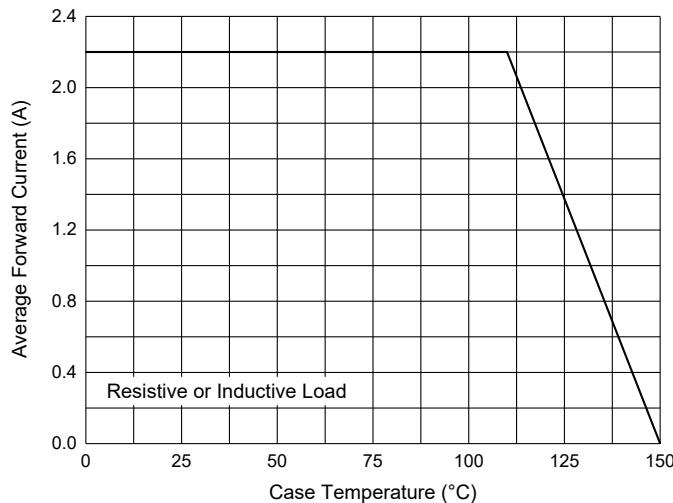


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

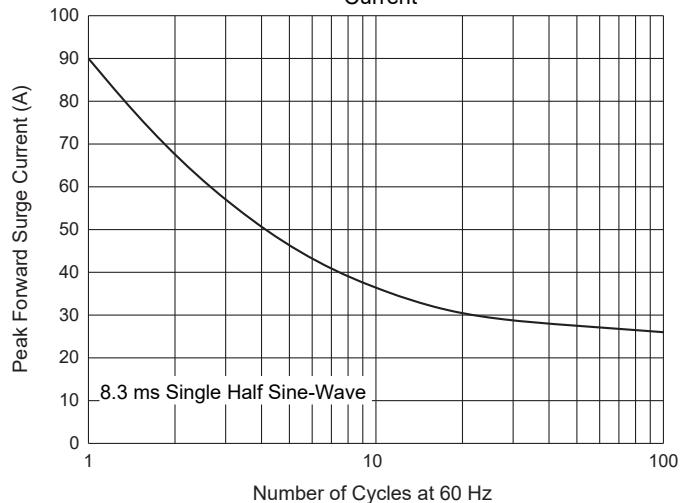


Fig. 3 - Typical Forward Characteristics

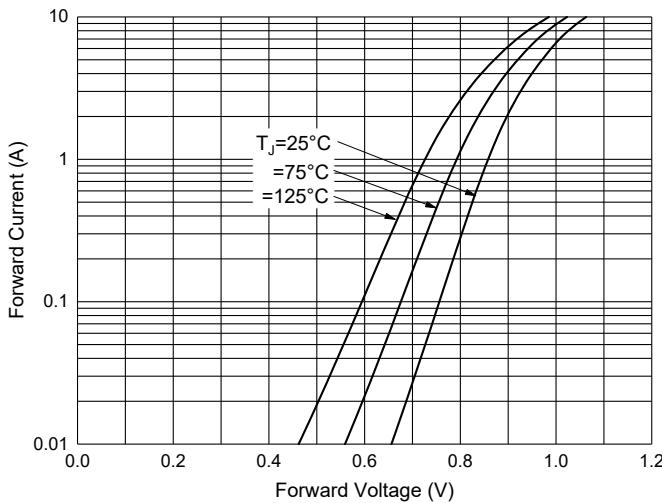


Fig. 4 - Typical Reverse Leakage Characteristics

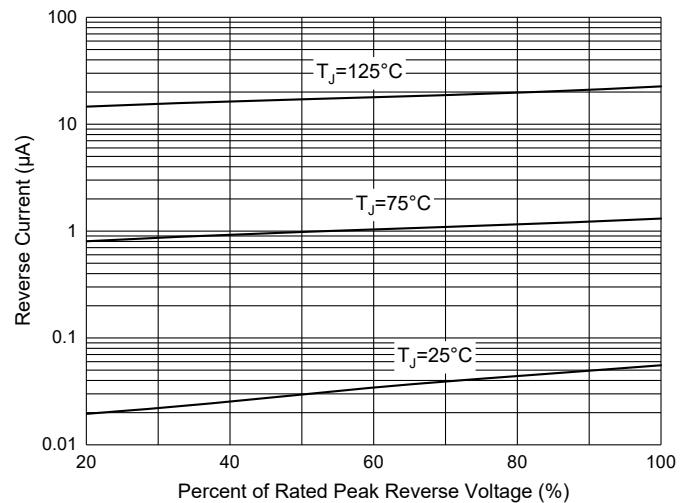


Fig. 5 - Typical Capacitance Characteristics

