

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)

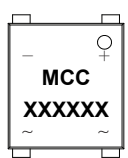
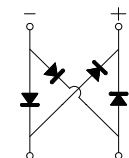
Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value							Unit
		TBS 22A	TBS 22B	TBS 22D	TBS 22G	TBS 22J	TBS 22K	TBS 22M	
Peak Repetitive Reverse Voltage	V_{RRM}								V
Working Peak Reverse Voltage	V_{RWM}	50	100	200	400	600	800	1000	
DC Blocking Voltage	V_R								
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Rectified Forward Current @ $T_C=110^\circ\text{C}$	$I_{F(AV)}$	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 @ $1\text{ms} \leq t \leq 8.3\text{ms}$	i^2t	33							A^2s

Marking Code

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

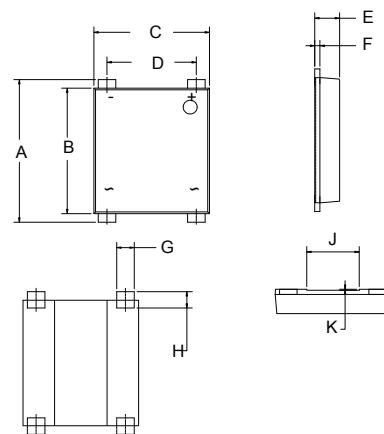
Internal Structure

Simplified Outline	Graphic Symbol
 <p>XXXX = Marking Code</p>	

- 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

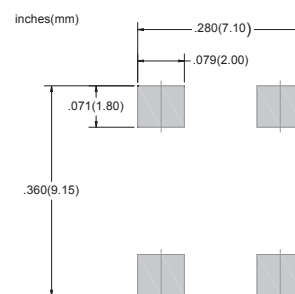
TBS



DIMENSIONS

DIM	INCHES		MM		NOTE
	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	$I_F=1.1A; T_J=25^\circ C$			0.95	V
Reverse Current	I_R	at Rated $V_R; T_J=25^\circ C$ at Rated $V_R; T_J=125^\circ C$			5 100	uA
Junction Capacitance	C_J	$V_R=4V; f=1MHz; T_J=25^\circ C$		35		pF

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

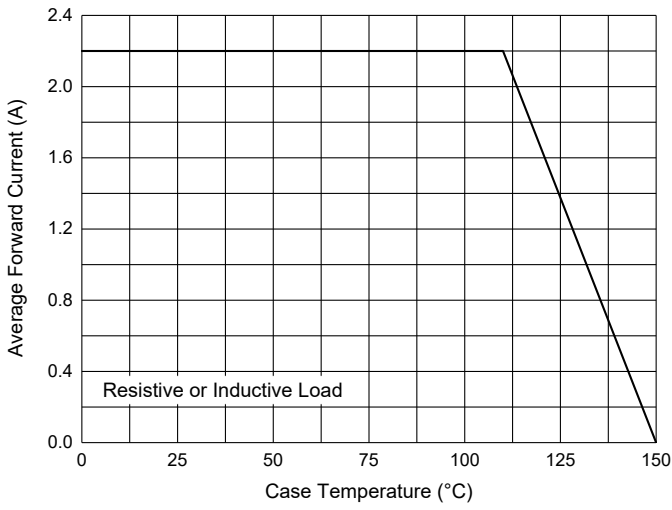


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

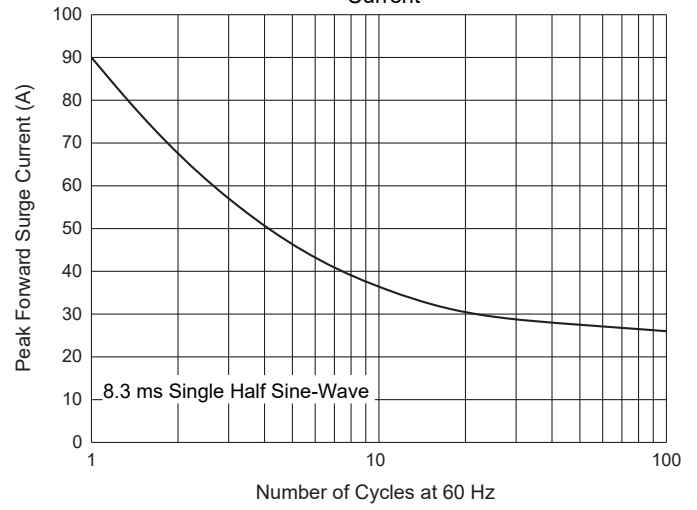


Fig. 3 - Typical Forward Characteristics

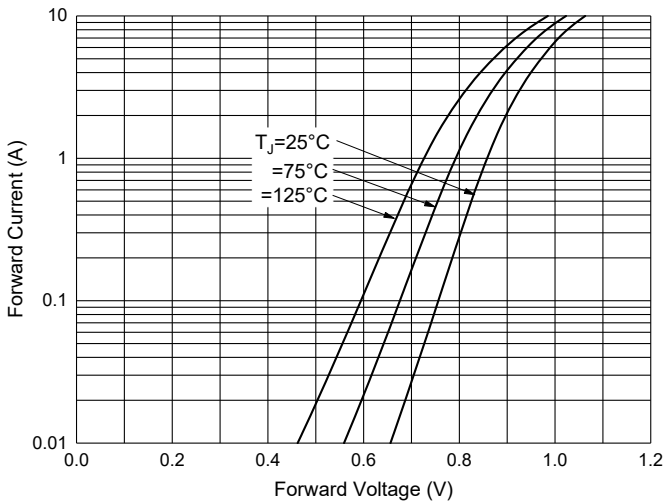


Fig. 4 - Typical Reverse Leakage Characteristics

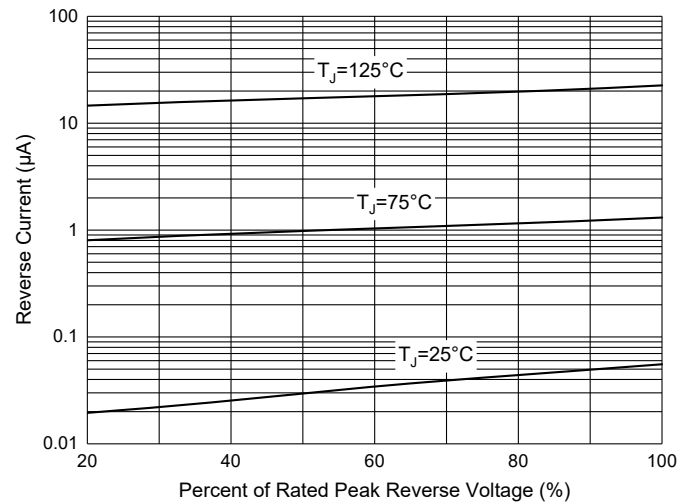


Fig. 5 - Typical Capacitance Characteristics

