



SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

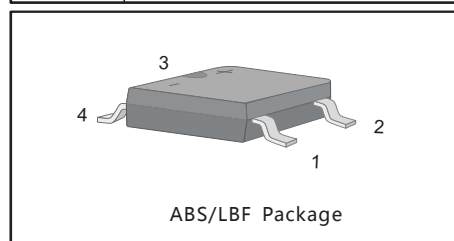
TB1S - TB10S

VOLTAGE RANGE - 100 to 1000 V
CURRENT - 0.8 A

FEATURES

- Glass Passivated Chip Junction
- Reverse Voltage - 100 to 1000 V
- Forward Current - 0.8 A
- High Surge Current Capability
- Designed for Surface Mount Application

PIN	DESCRIPTION
1	Input Pin (~)
2	Input Pin (~)
3	Output Anode (+)
4	Output Cathode (-)



MECHANICAL DATA

- Case: ABS/LBF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 88mg 0.0029oz

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	TB1S	TB2S	TB4S	TB6S	TB8S	TB10S	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	800	1000	V
Average Rectified Output Current at $T_a = 40^\circ C$	I_O	0.8						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30						A
Forward Voltage per element @ $I_F = 0.4A$ @ $I_F = 0.8A$	V_F	1.0 1.1						V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_A = 25^\circ C$ @ $T_A = 100^\circ C$ @ $T_A = 125^\circ C$	I_R	5.0 100 500						μA
Typical Junction Capacitance (Note1)	C_j	13						pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$ $R_{\theta JL}$	80 16						$^\circ C/W$
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150						$^\circ C$

Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.

2. Mounted on glass epoxy PC board with 1.3mm² copper pad.



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RATING AND CHARACTERISTIC CURVES TB1S - TB10S

Fig.1 Average Rectified Output Current Derating Curve

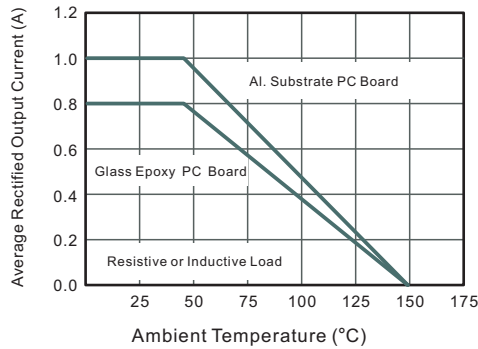


Fig.2 Typical Reverse Characteristics

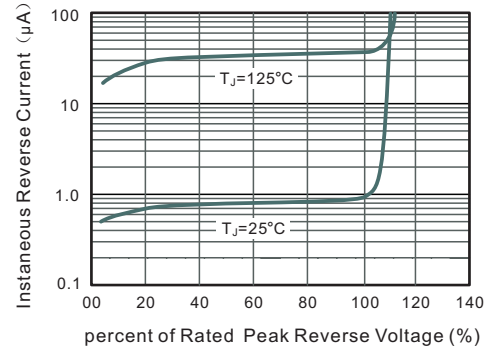


Fig.3 Typical Instantaneous Forward Characteristics

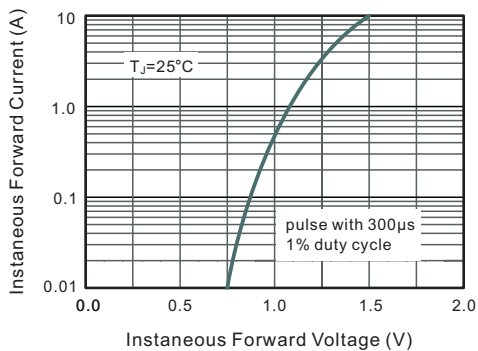


Fig.4 Typical Junction Capacitance

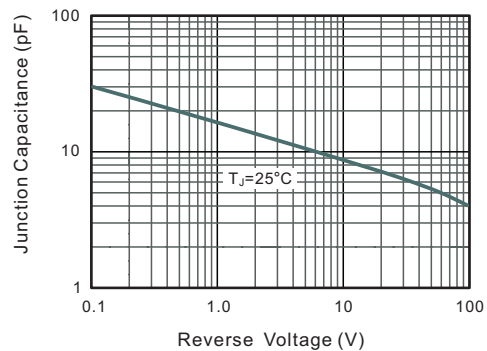
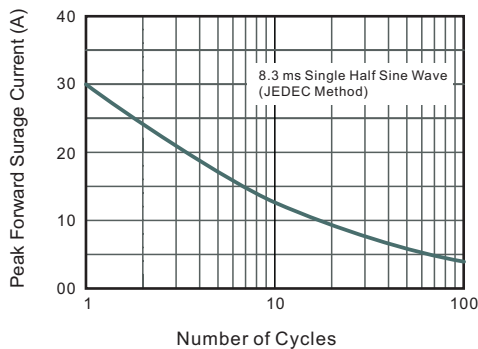


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current





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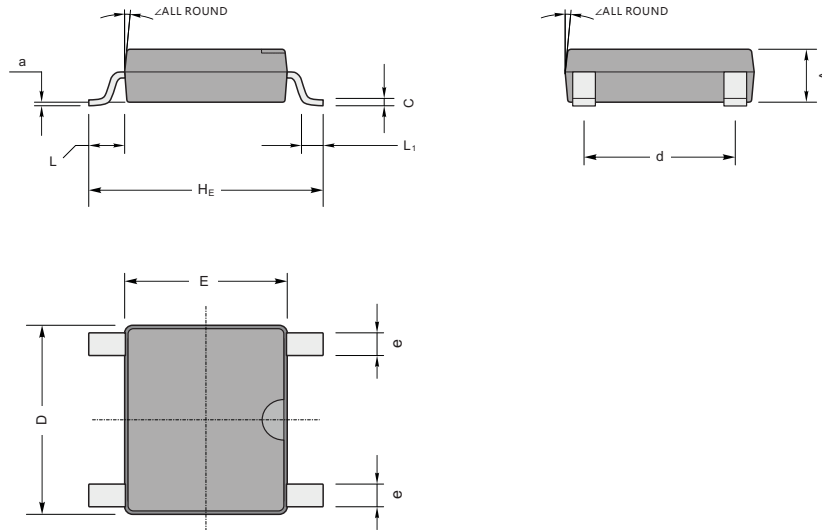
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PACKAGE OUTLINE

Plastic surface mounted package; 4 leads

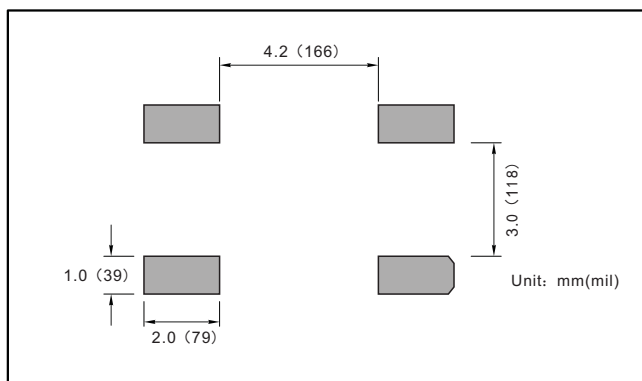
ABS/LBF



ABS/LBF mechanical data

UNIT		A	C	D	E	H _E	d	e	L	L ₁	a	∠
mm	max	1.5	0.22	5.2	4.5	6.4	4.2	0.7	0.95	0.6	0.2	7°
	min	1.3	0.15	4.9	4.2	6.0	3.8	0.5				
mil	max	59	8.7	205	177	252	165	28	37	24	4	
	min	51	5.9	193	166	236	150	20				

The recommended mounting pad size



Marking

Type number	Marking code
TB1S	TB1S
TB2S	TB2S
TB4S	TB4S
TB6S	TB6S
TB8S	TB8S
TB10S	TB10S