

TB1S-10 THRU TB10S-10

1A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

FEATURES:

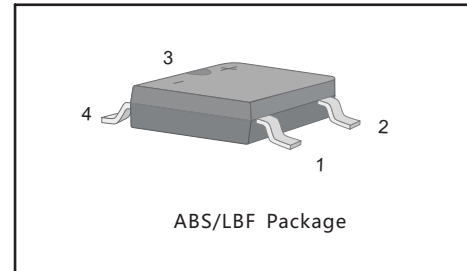
- Glass Passivated Chip Junction
- Reverse Voltage - 100 to 1000 V
- Forward Current - 1 A
- High Surge Current Capability
- Designed for Surface Mount Application

MECHANICAL DATA

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

PINNING

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

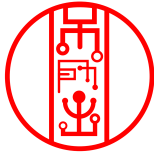


Maximum Ratings and Electrical characteristics

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-10	TB2S-10	TB4S-10	TB6S-10	TB8S-10	TB10S-10	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 $T_a = 40\text{ }^{\circ}\text{C}$	I_O	1						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	35						A
Forward Voltage per element @ $I_F = 1.0\text{ A}$	V_F	1.1						V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_A = 25\text{ }^{\circ}\text{C}$ @ $T_A = 100\text{ }^{\circ}\text{C}$ @ $T_A = 125\text{ }^{\circ}\text{C}$	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						$^{\circ}\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	$-55 \sim +150$						$^{\circ}\text{C}$

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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Fig.1 Average Rectified Output Current Derating Curve

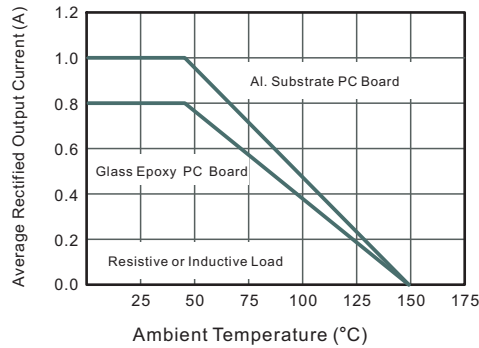


Fig.2 Typical Reverse Characteristics

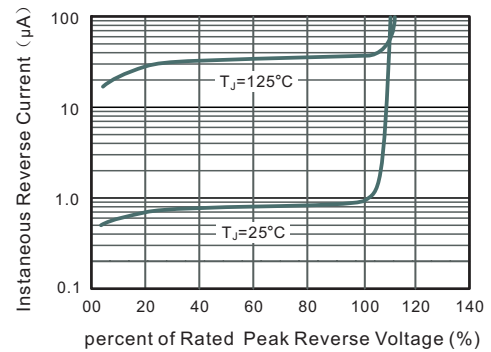


Fig.3 Typical Instantaneous Forward Characteristics

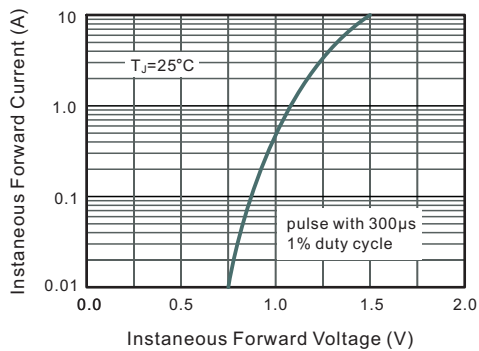


Fig.4 Typical Junction Capacitance

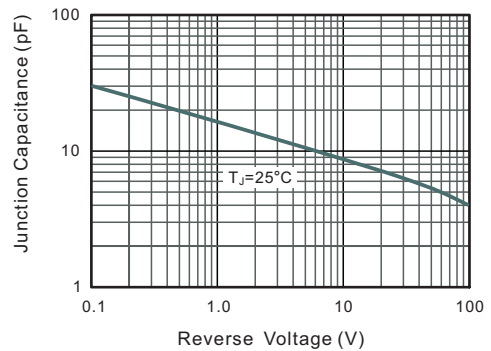
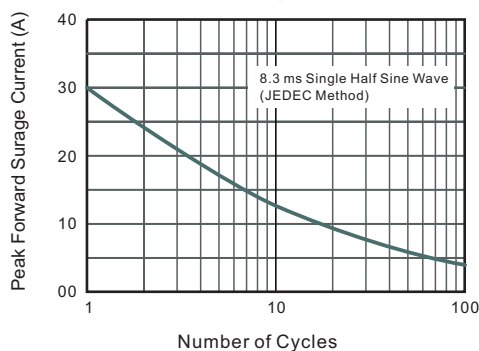


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



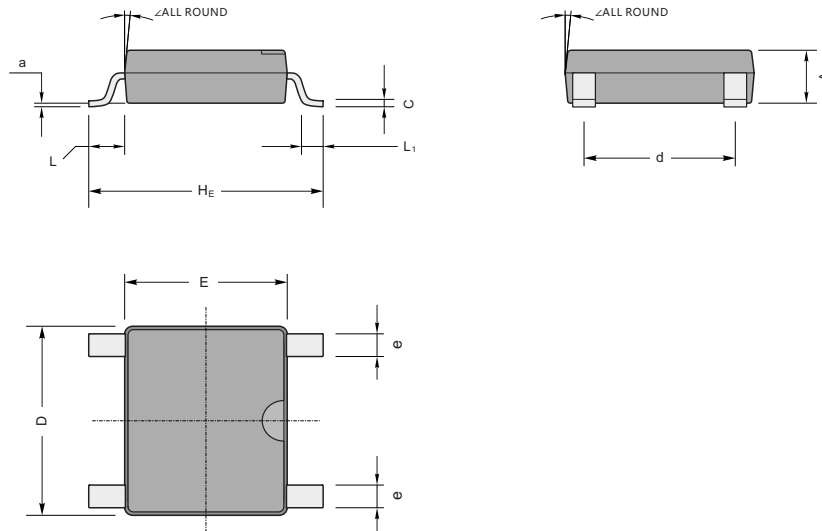


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PACKAGE OUTLINE

Plastic surface mounted package; 4 leads

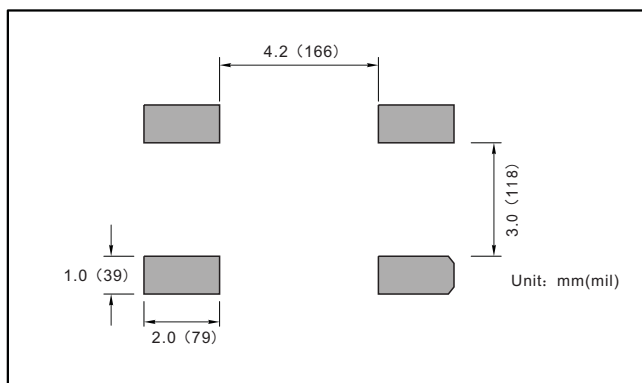
ABS/LBF



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-10	10T1
TB2S-10	10T2
TB4S-10	10T4
TB6S-10	10T6
TB8S-10	10T8
TB10S-10	10T10

