UTB1SH THRU UTB10SH

1.5A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

FEATURES:

- Glass Passivated Chip Junction
- Reverse oltage - 100 to 1000 V
- Forward Current - 1.5 A
- Fast reverse recovery time
- Designed for Surface Mount Application

PINNING

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

ABS/LBF Package

MECHANICAL DATA

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

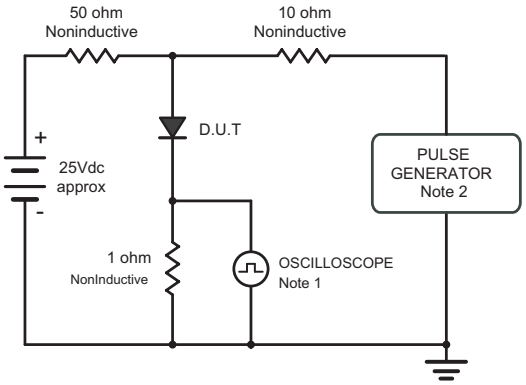
Maximum Ratings and Electrical characteristics

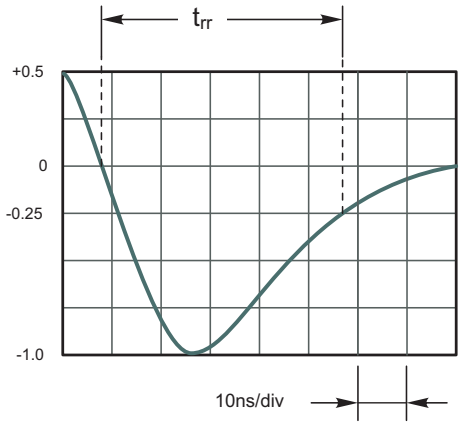
Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	UTB1SH	UTB2SH	UTB4SH	UTB6SH	UTB8SH	UTB10SH	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_C = 125 °C	I_O	1.5						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	50						A
Maximum Forward Voltage at 1.5 A	V_F	1.0		1.4	1.6			V
Maximum DC Reverse Current T_a = 25 °C at Rated DC Blocking Voltage T_a =125 °C	I_R	5.0 100						μA
Typical Junction Capacitance 1)	C_j	30						pF
Maximum Reverse Recovery Time 2)	t_{rr}	50			75			ns
Typical Thermal Resistance 3)	$R_{\theta JA}$ $R_{\theta JC}$	65 16						°C/W
Operating and Storage Temperature Range	T_j T_{stg}	-55 ~ +150						°C

1) Measured at 1 MHz and applied reverse voltage of 4 V D.C
2) Measured with I = 0.5 A, I_R = 1 A, I_{rr} = 0.25 A
3) P.C.B. mounted with 4×1.5" ×1.5" (3.81 ×3.81 cm) copper pad areas.

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram





Set time Base for 10ns/div

Note：1. Rise Time = 7ns, max.
Input Impedance = 1megohm,22pF.
2. Pulse Width =10ns, max.
Source Impedance = 50 ohms.

Fig.2 Maximum Average Forward Current Rating

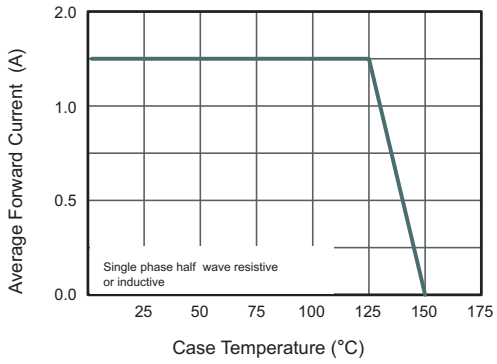


Fig.3 Typical Reverse Characteristics

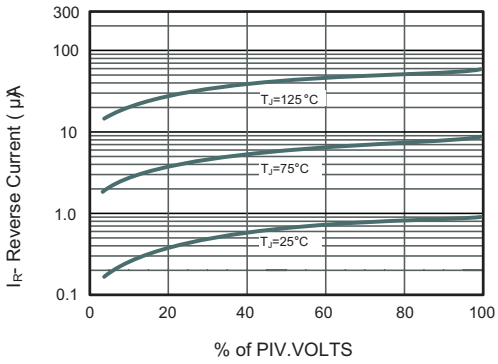


Fig.3 Typical Instaneous Forward Characteristics

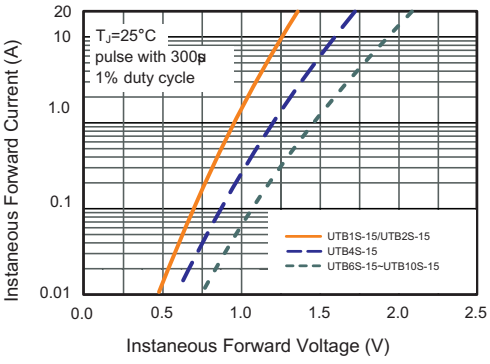
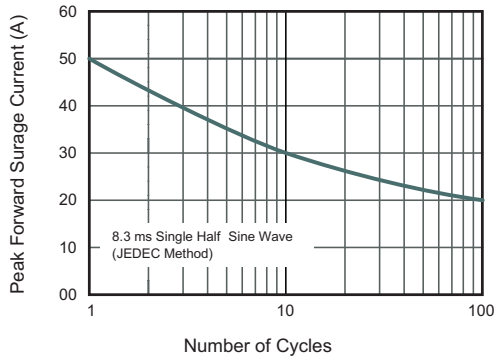


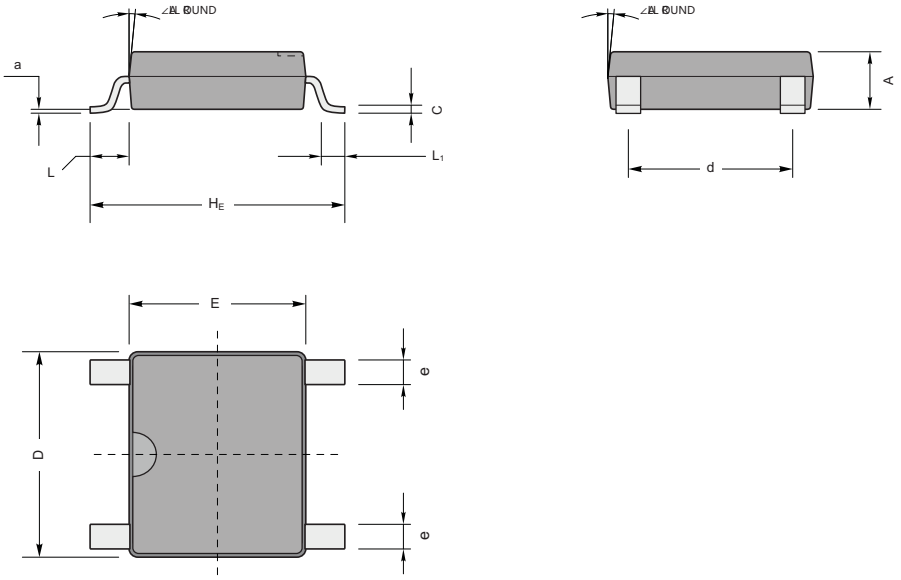
Fig.5 Maximum Non-Repetitive Peak Forward Surage Current



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	8	
	min	51	5.9	193	166	236	150	20				

The recommended mounting pad size