

UTB1S-15AT THRU UTB10S-15AT

SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIERS

Forward Current-1.5A

Reverse Voltage-100V to 1000V

FEATURES

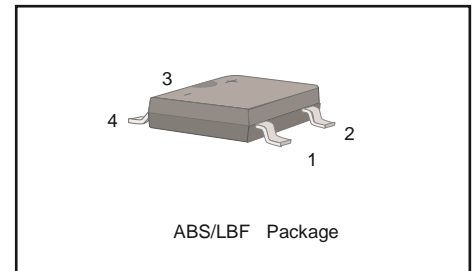
- ◆ For surface mount applications
- ◆ Glass passivated chip junction
- ◆ Ultrafast reverse recovery time

MECHANICAL DATA

- ◆ Case: ABS/LBF molded plastic body
- ◆ Terminals: Solderable per MIL-STD-750 , Method 2026
- ◆ Weight: Approximated 0.088 grams

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 derating by 20 %.

PARAMETER	SYMBOL	UTB1S -15AT	UTB2S -15AT	UTB4S -15AT	UTB6S -15AT	UTB8S -15AT	UTB10S -15AT	UNIT
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
Maximum Average Forward Rectified Current at $T_C=125^\circ\text{C}$	$I_{F(AV)}$	1.5						A
Peak Forward Surge Current (Note1)	I_{FSM}	50						A
Maximum Forward Voltage at 1.5A	V_F	1.0		1.4		1.6		V
Maximum DC Reverse Current at Rated DC Blocking Voltage at $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$	I_R	5.0 100						μA
Typical Junction Capacitance (Note2)	C_J	30						pF
Maximum Reverse Recovery Time (Note3)	T_{rr}	50			75			nS
Typical Thermal Resistance (Note4)	$R_{\theta JA}$ $R_{\theta JC}$	65 16						$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150						$^\circ\text{C}$

Notes: 1. Measured at 8.3 ms single half sine wave superimposed on rated load (JEDEC Method).

2. Measured at 1MHz and applied reverse voltage of 4 V D.V.

3. Measured with $I_F=0.5\text{A}, I_R=1\text{A}, I_{rr}=0.25\text{A}$.

4. Mounted on 1.5" X 1.5" (3.81 X 3.81 cm) copper pad areas.

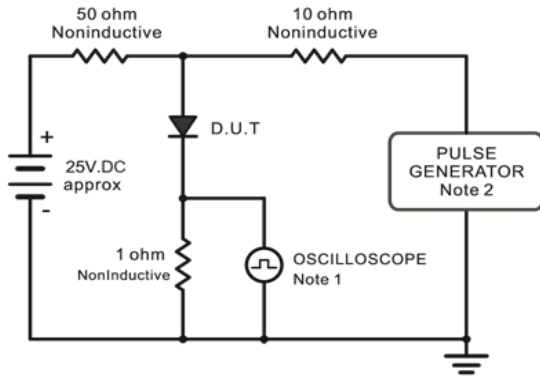
Dated: 06/2016

Rev:1.0

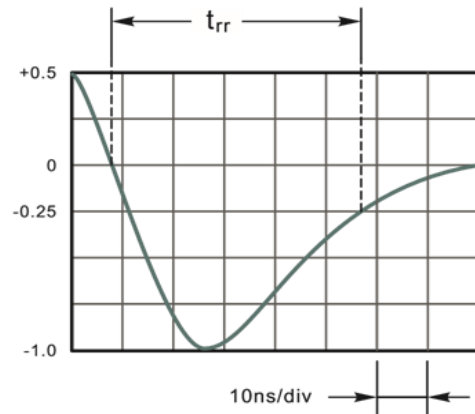
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RATINGS AND CHARACTERISTIC CURVES

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram



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



Set time Base for 10ns/div

Fig.2 Maximum Average Forward Current Rating

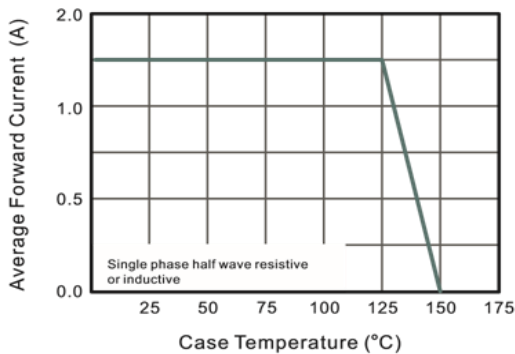


Fig.3 Typical Reverse Characteristics

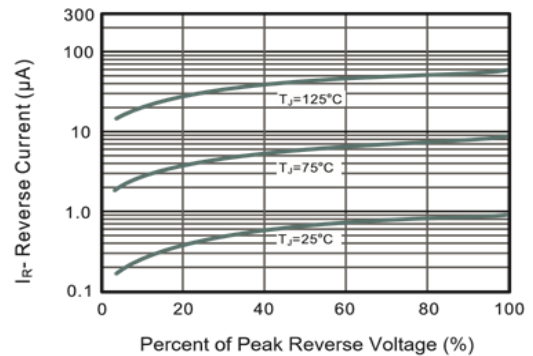


Fig.3 Typical Instantaneous Forward Characteristics

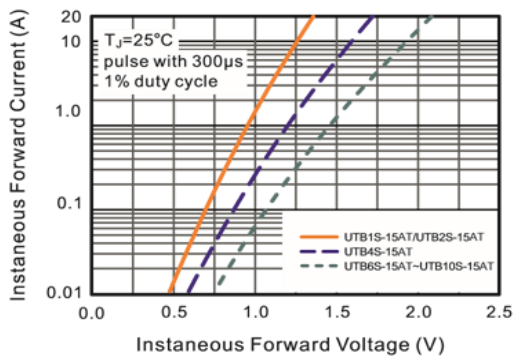
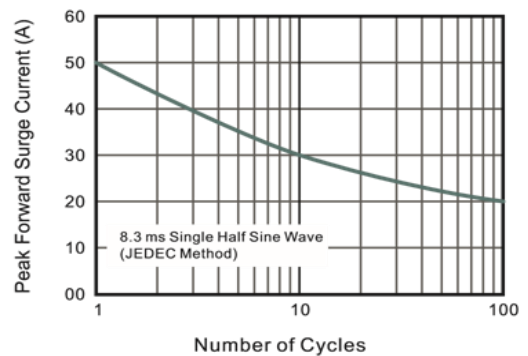


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



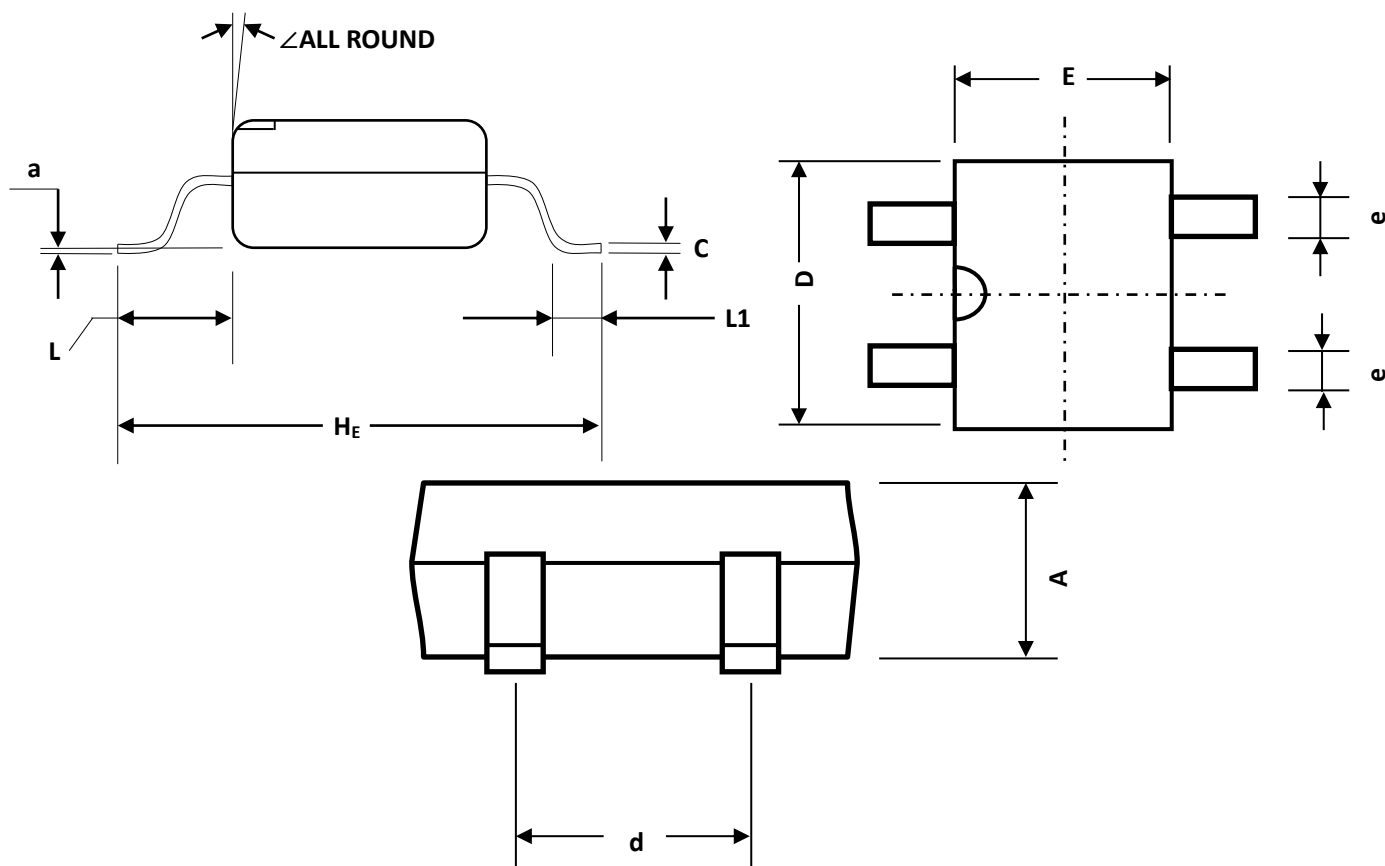
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PACKAGE OUTLINE

ABS/LBF



ABS/LBF mechanical data

UNIT		A	C	D	E	H_E	d	e	L	L_1	a	\angle
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				

ORDERING INFORMATION

Device	Package	Shipping
UTB1S-15AT thru UTB10S-15AT	ABS/LBF	3,000/Tape & Reel (11 inches)
		5,000/ Tape & Reel (13 inches)

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