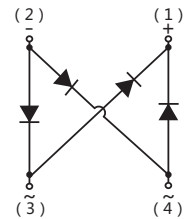
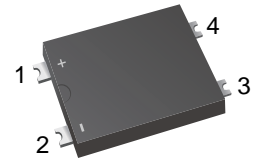


## 3A Surface Mount Glass Passivated Bridge Rectifier

### Features

- Glass Passivated Chip Junction
- Reverse Voltage - 100 to 1000 V
- Forward Current - 3.0A
- High Surge Current Capability
- Designed for Surface Mount Application
- Lead free in comply with EU RoHS 2011/65/EU directives



### Mechanical Data

- Case:MSB
- Terminals: Solderable per MIL-STD-750, Method 2026

### Ordering Information

Part Number	Shipping	Reel
LTA1U-30 THRU LTA10U-30-TR3	3000PCS Tape&Reel	13 inchs

### 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	LTA1U-30	LTA2U-30	LTA4U-30	LTA6U-30	LTA8U-30	LTA10U-30	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	$I_O$	3.0						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	80						A
Maximum Forward Voltage at 3.0 A	$V_F$	1.1						V
Maximum DC Reverse Current @ $T_A=25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125\text{ }^\circ\text{C}$	$I_R$	5 100						$\mu\text{A}$
Typical Junction Capacitance ( Note1 )	$C_j$	40						pF
Typical Thermal Resistance ( Note2 )	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	60 10 25						$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 ~ +150						$^\circ\text{C}$

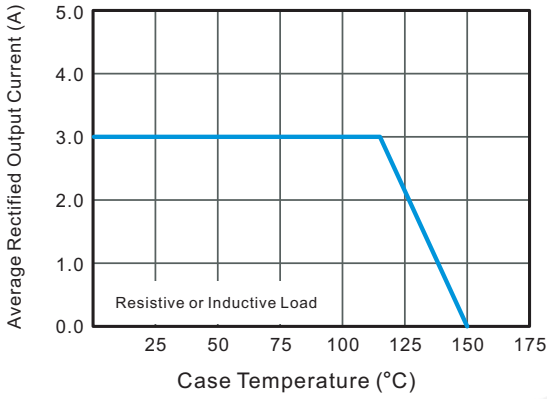
Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.

2. Mounted on glass epoxy PC board with 4×1.5"×1.5" ( 3.81cm ×3.81 cm ) copper pad.

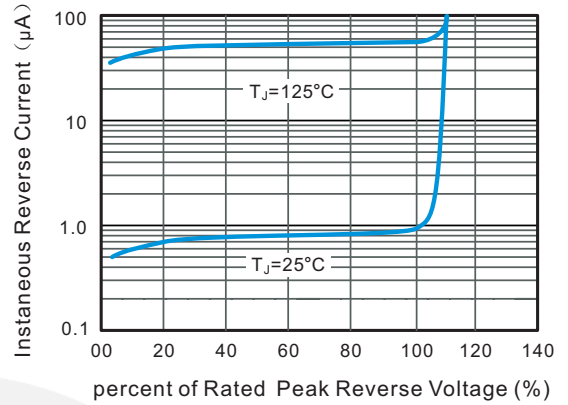


Characteristics Curves

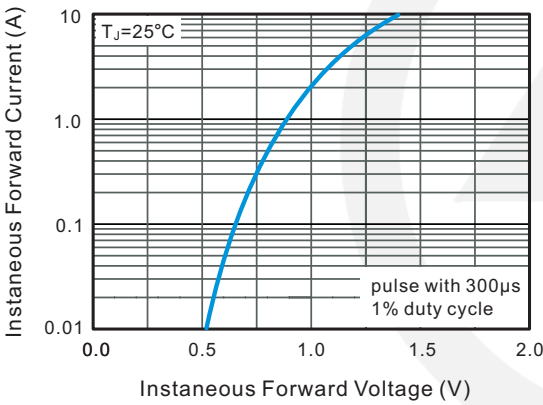
**Fig.1 Average Rectified Output Current Derating Curve**



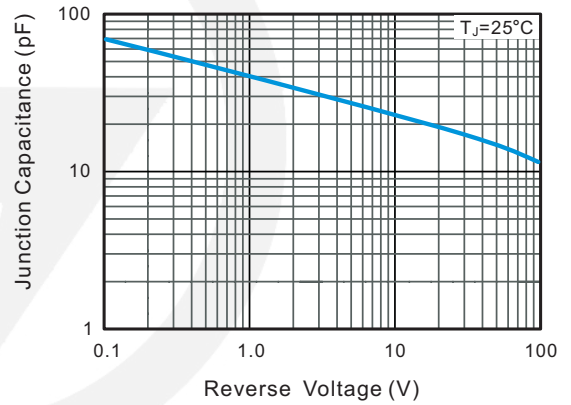
**Fig.2 Typical Reverse Characteristics**



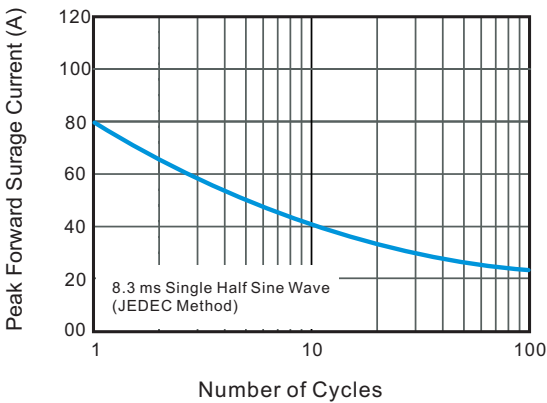
**Fig.3 Typical Instantaneous Forward Characteristics**



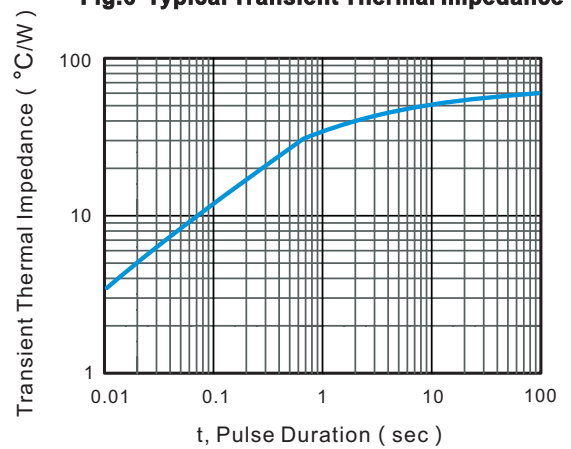
**Fig.4 Typical Junction Capacitance**



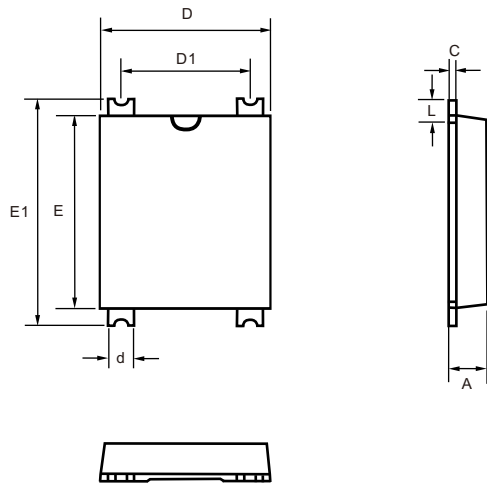
**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



**Fig.6 Typical Transient Thermal Impedance**



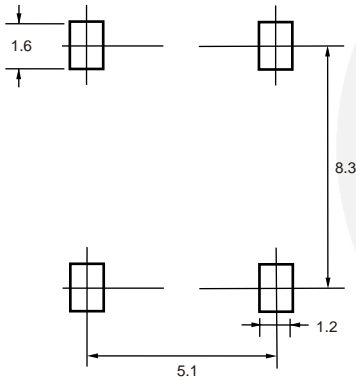
## MSB Package Outline



Unit: mm

SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	1.20	1.80
D	6.40	7.00
D1	4.78	5.38
d	0.80	1.20
E	7.30	7.90
E1	8.60	9.20
c	0.15	0.35
L	0.65	1.10

## MSB Suggested Pad Layout



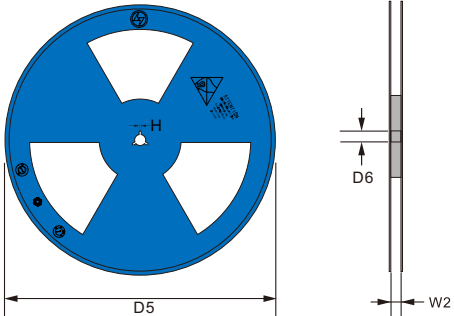
- Note:
1. Controlling dimension: in millimeters.
  2. General tolerance:  $\pm 0.05\text{mm}$
  3. The pad layout is for reference purpose only.

## Marking

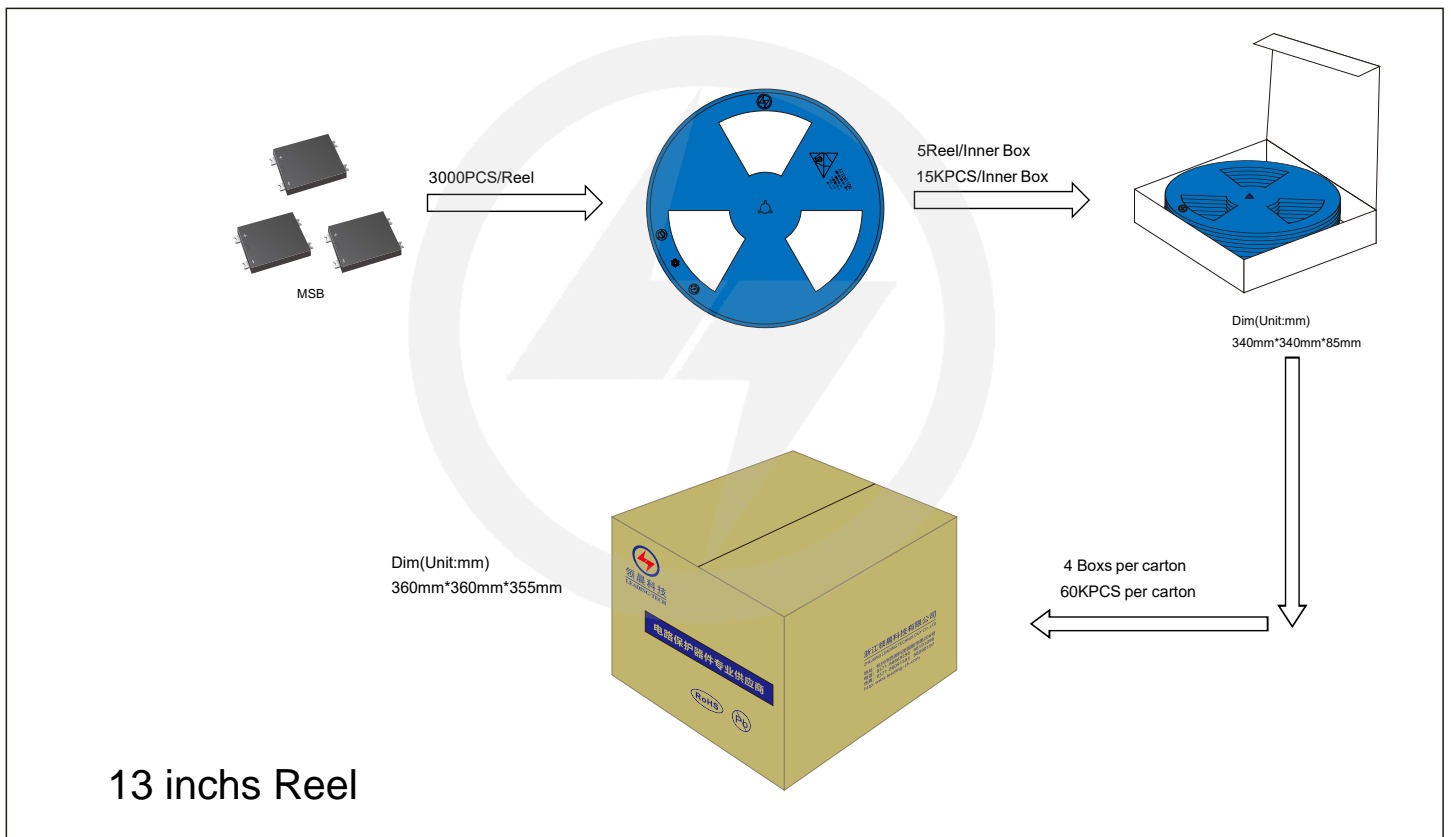
Type number	Marking code
LTA1U-30	MB30B
LTA2U-30	MB30D
LTA4U-30	MB30G
LTA6U-30	MB30J
LTA8U-30	MB30K
LTA10U-30	MB30M

## Reel Dimensions

Unit : mm

<p>13" Reel</p> 	D5	$\Phi 330.0 \pm 2.0$
	D6	$\Phi 13.5 \pm 0.5$
	H	$2.5 \pm 1.0$
	W2	$12 \pm 2.0$
	Quantity: 3000PCS	

## Packaging





**Recommended Soldering Conditions**



**Recommended Conditions**

Profile Feature	Pb-Free Assembly
Average ramp-up rate ( $T_L$ to $T_P$ )	3°C/second max.
Preheat	
-Temperature Min ( $T_{S\ min}$ )	150°C
-Temperature Max ( $T_{S\ max}$ )	200°C
-Time (min to max) ( $t_s$ )	60-180 seconds
$T_{S\ max}$ to $T_L$	
-Ramp-up Rate	3°C/second max.
Time maintained above:	
-Temperature ( $T_L$ )	217°C
-Time ( $t_L$ )	60-150 seconds
Peak Temperature ( $T_P$ )	260°C
Time within 5°C of actual Peak Temperature ( $t_p$ )	20-40 seconds
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.

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## Version Update Information

Series NO.	Enactment/Revision Date	Effective Date	Version	Revision content	Revision Reason	Revision Person	Note
01	2024.12.8	2024.12.8	3.0	New File	/	Ding	
02	2025.05.29	2025.05.29	3.1	Update packaging information	/	Ding	
03	2025.07.14	2025.07.14	3.2	Change Case to MSB	/	Ding	