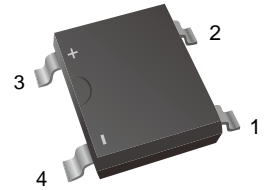


## 2A Surface Mount Schottky Bridge

### Features

- Reverse Voltage - 40 to 200 V
- Forward Current - 2A
- High Surge Current Capability
- Designed for Surface Mount Application
- Lead free in comply with EU RoHS 2011/65/EU directives



### Mechanical Data

- Case: ABS
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.083g

### Ordering Information

| Part Number              | Shipping          | Reel      |
|--------------------------|-------------------|-----------|
| LTA24S THRU LTA220S -TR5 | 5000PCS Tape&Reel | 13 inches |

### 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         | LTA24S      | LTA26S | LTA28S | LTA210S  | LTA220S | Units |
|---|-----------------|-------------|--------|--------|----------|---------|-------|
| Maximum Repetitive Peak Reverse Voltage   | $V_{RRM}$       | 40          | 60     | 80     | 100      | 200     | V     |
| Maximum RMS voltage   | $V_{RMS}$       | 28          | 42     | 56     | 70       | 140     | V     |
| Maximum DC Blocking Voltage   | $V_{DC}$        | 40          | 60     | 80     | 100      | 200     | V     |
| Maximum Average Forward Rectified Current   | $I_{F(AV)}$     | 2.0         |        |        |          |         | A     |
| Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)     | $I_{FSM}$       | 50          |        | 40     |          |         | A     |
| Max Instantaneous Forward Voltage at 1 A  | $V_F$           | 0.55        | 0.70   | 0.85   |          |         | V     |
| Maximum DC Reverse Current at Rated DC Reverse Voltage<br>$T_a = 25^{\circ}C$<br>$T_a = 100^{\circ}C$ | $I_R$           | 0.5<br>10   |        |        | 0.3<br>5 |         | mA    |
| Typical Junction Capacitance <sup>1)</sup>  | $C_j$           | 220         | 80     |        |          |         | pF    |
| Typical Thermal Resistance <sup>2)</sup>  | $R_{\theta JA}$ | 70          |        |        |          |         | °C/W  |
| Operating Junction Temperature Range  | $T_j$           | -55 to +150 |        |        |          |         | °C    |
| Storage Temperature Range   | $T_{stg}$       | -55 to +150 |        |        |          |         | °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" ( 3.81×3.81 cm ) copper pad.



Characteristics Curves

Fig.1 Forward Current Derating Curve

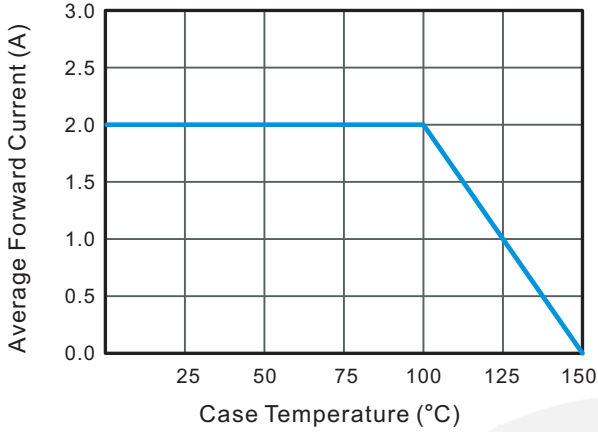


Fig.2 Typical Reverse Characteristics

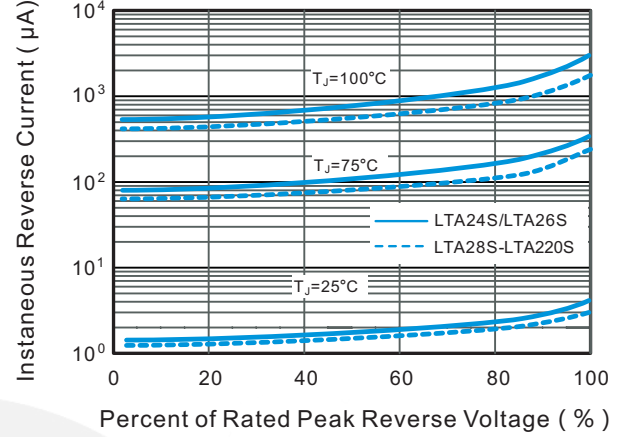


Fig.3 Typical Forward Characteristic

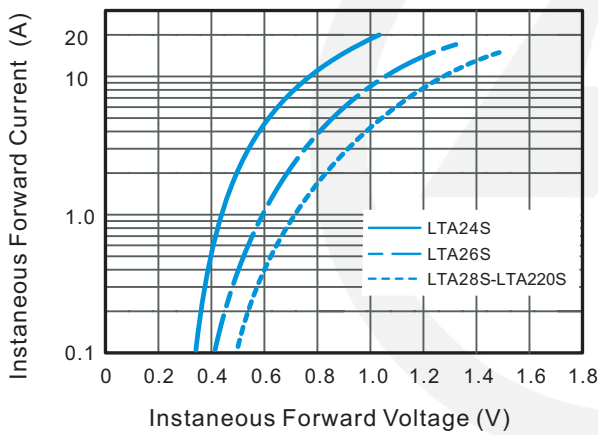


Fig.4 Typical Junction Capacitance

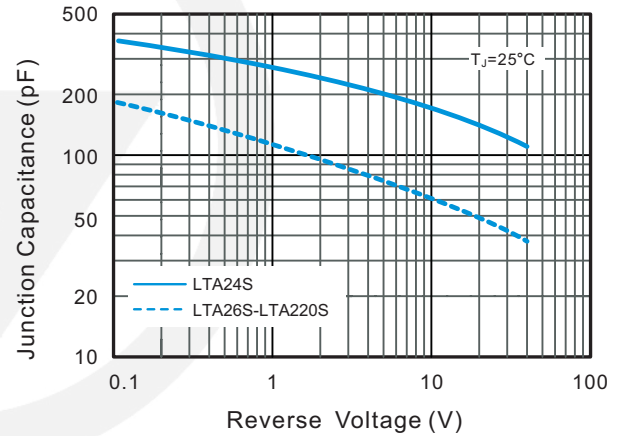
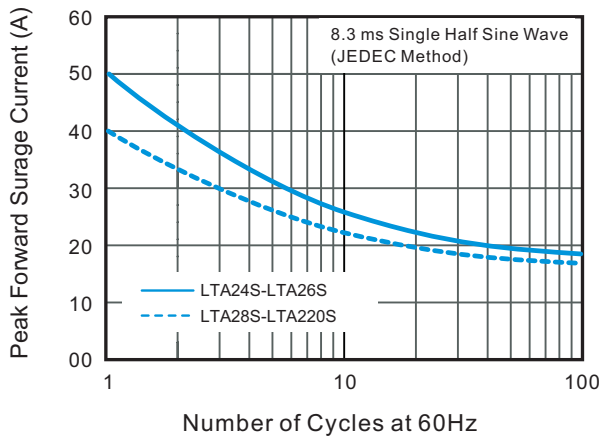
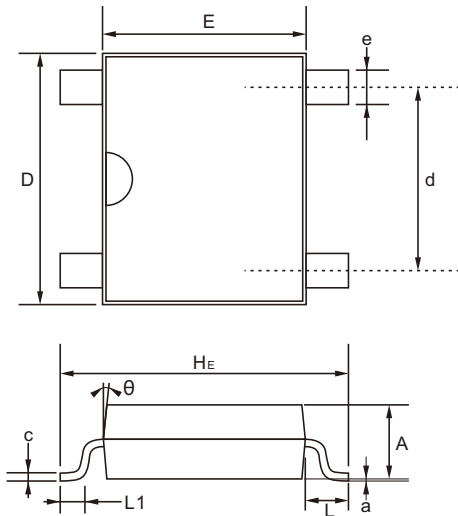


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



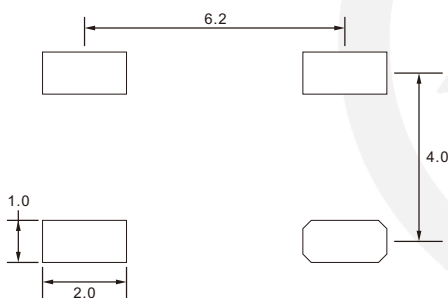
## ABS Package Outline



Unit: mm

| SYMBOL | DIMENSIONS |       |
|--------|------------|-------|
|        | MIN.       | MAX.  |
| A      | 1.300      | 1.500 |
| C      | 0.150      | 0.220 |
| D      | 4.900      | 5.200 |
| E      | 4.200      | 4.500 |
| HE     | 6.000      | 6.400 |
| d      | 3.800      | 4.200 |
| e      | 0.500      | 0.700 |
| L      | 0.950 TYP. |       |
| L1     | 0.600 TYP. |       |
| a      | 0.200 TYP. |       |
| θ      | 7°         |       |

## ABS Suggested Pad Layout



**Note:**

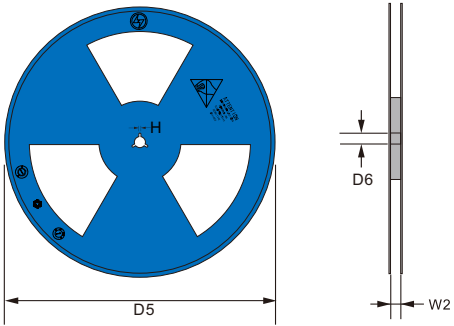
1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05\text{mm}$
3. The pad layout is for reference purpose only.

## Marking

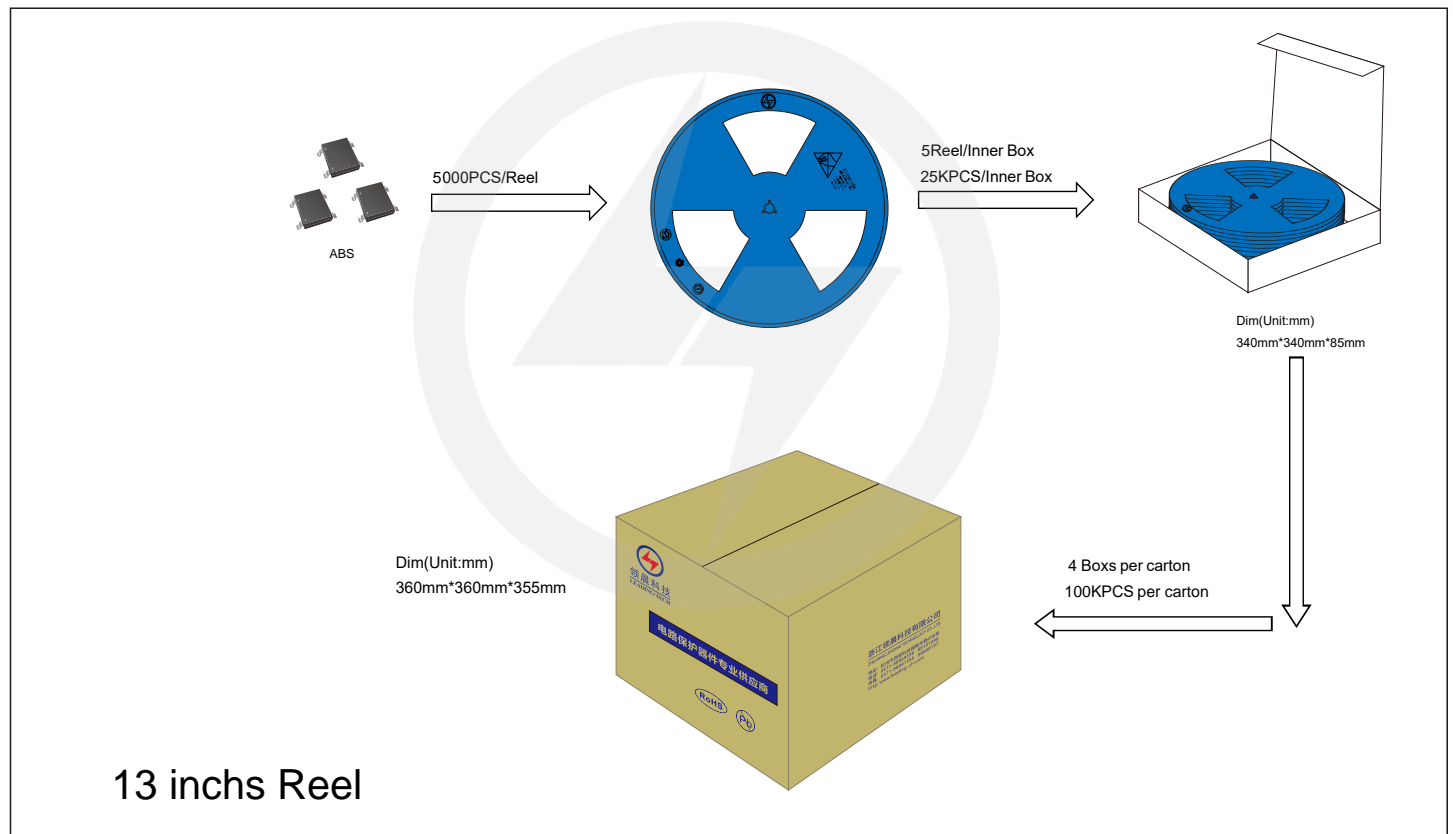
| Type number | Marking code |
|-------------|--------------|
| LTA24S      | TB24S        |
| LTA26S      | TB26S        |
| LTA28S      | TB28S        |
| LTA210S     | TB210S       |
| LTA220S     | TB220S       |

## 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: 5000PCS |                      |

## Packaging





Recommended Soldering Conditions



Recommended Conditions

| Profile Feature  | Pb-Free Assembly |
|--|------------------|
| Average ramp-up rate (T <sub>L</sub> to T <sub>P</sub> )     | 3°C/second max.  |
| Preheat  |                  |
| -Temperature Min (T <sub>S min</sub> )                       | 150°C            |
| -Temperature Max (T <sub>S max</sub> )                       | 200°C            |
| -Time (min to max) (t <sub>s</sub> )                         | 60-180 seconds   |
| T <sub>S max</sub> to T <sub>L</sub>                         |                  |
| -Ramp-up Rate  | 3°C/second max.  |
| Time maintained above:                                       |                  |
| -Temperature (T <sub>L</sub> )                               | 217°C            |
| -Time (t <sub>L</sub> )                                      | 60-150 seconds   |
| Peak Temperature (T <sub>P</sub> )                           | 260°C            |
| Time within 5°C of actual Peak Temperature (t <sub>p</sub> ) | 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         | 2025.07.07              | 2025.07.07     | 3.0     | New file         | /               | Ding            |      |