

Surface Mount Super fast Recovery Bridge Rectifier

Reverse Voltage – 100 to 600 V

Forward Current – 2 A

FEATURES

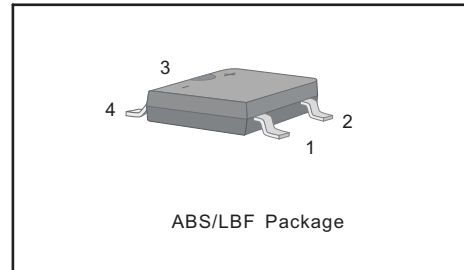
- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Super fast reverse recovery time
- Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- Case: ABS/LBF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 88mg/0.0031oz

PINNING

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



Absolute Maximum Ratings and Characteristics

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

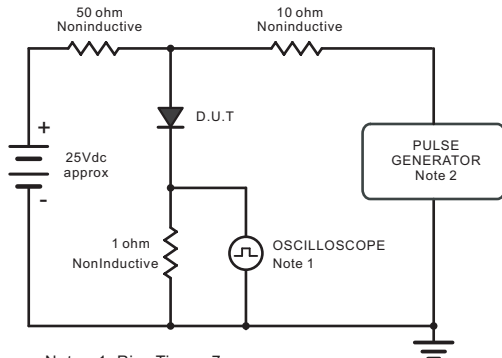
| Parameter | Symbols | EABS21 | EABS22 | EABS24 | EABS26 | Units |
|-------------------------------------------------------------------------------------------------------------------------------|-----------------|------------|--------|--------|--------|--------------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 100 | 200 | 400 | 600 | V |
| Maximum RMS voltage | V_{RMS} | 70 | 140 | 280 | 420 | V |
| Maximum DC Blocking Voltage | V_{DC} | 100 | 200 | 400 | 600 | V |
| Maximum Average Forward Rectified Current at $T_c = 125\text{ }^\circ\text{C}$ | $I_{F(AV)}$ | 2 | | | | A |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load | I_{FSM} | 50 | | | | A |
| Maximum Forward Voltage at 2 A | V_F | 0.95 | | 1.25 | 1.70 | 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 | | μA |
| Typical Junction Capacitance (Note: 1) | C_j | | 40 | | | pF |
| Maximum Reverse Recovery Time (Note: 2) | t_{rr} | | 35 | | | ns |
| Typical Thermal Resistance (Note: 3) | $R_{\theta JA}$ | | 80 | | | $^\circ\text{C/W}$ |
| 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. Measured with $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $t_{rr} = 0.25\text{ }\mu\text{s}$.

3. Mounted on glass epoxy PC board with $4 \times 1.5 \times 1.5$ (3.81×3.81 cm) copper pad.

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.

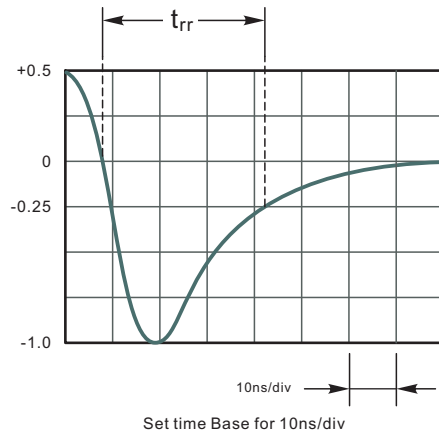


Fig.2 Maximum Average Forward Current Rating

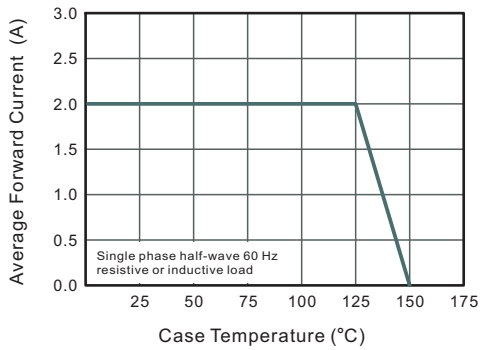


Fig.3 Typical Reverse Characteristics

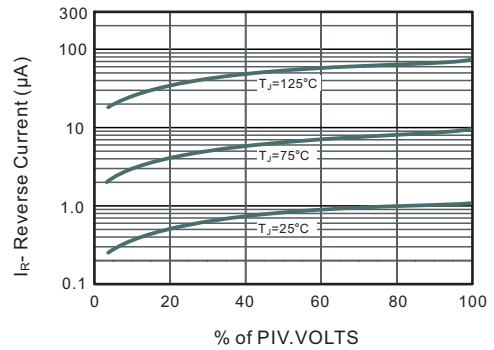


Fig.4 Typical Forward Characteristics

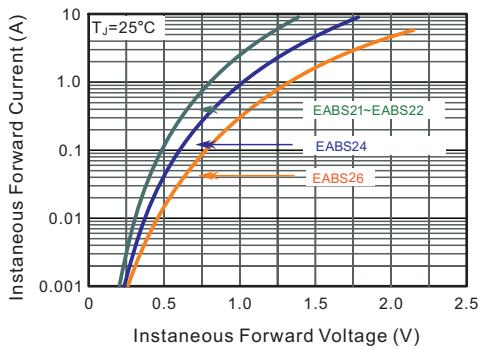


Fig.5 Typical Junction Capacitance

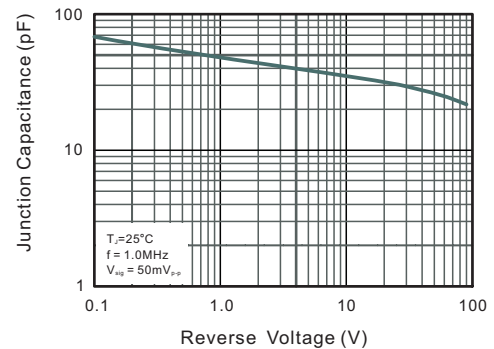


Fig.6 Maximum Non-Repetitive Peak Forward Surge Current

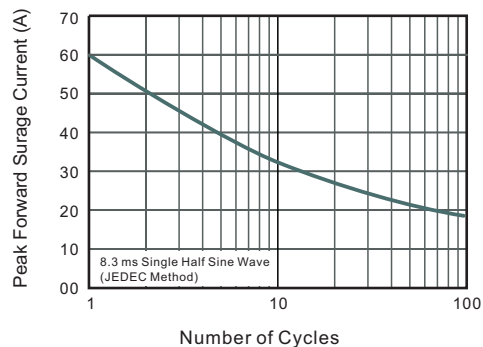
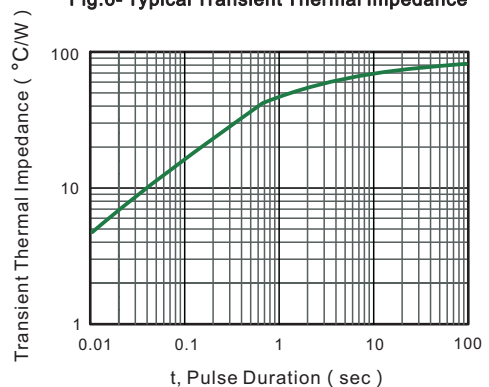


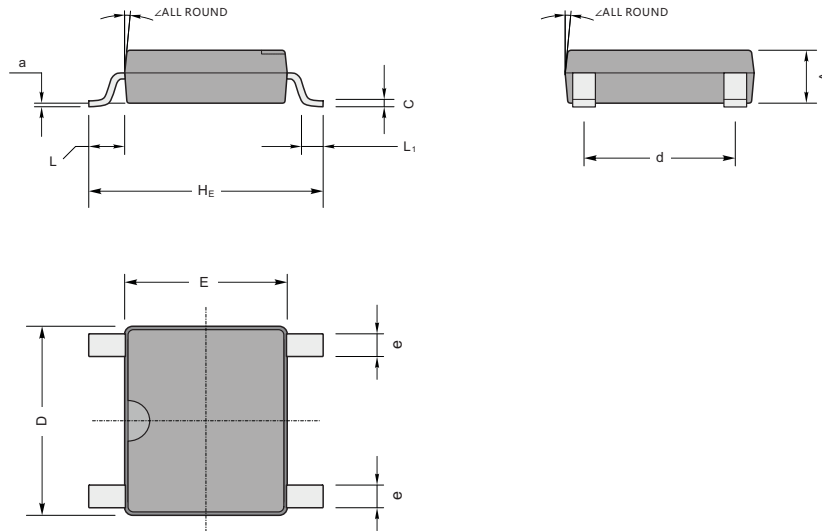
Fig.6- Typical Transient Thermal Impedance



PACKAGE OUTLINE

Plastic surface mounted package; 4 leads

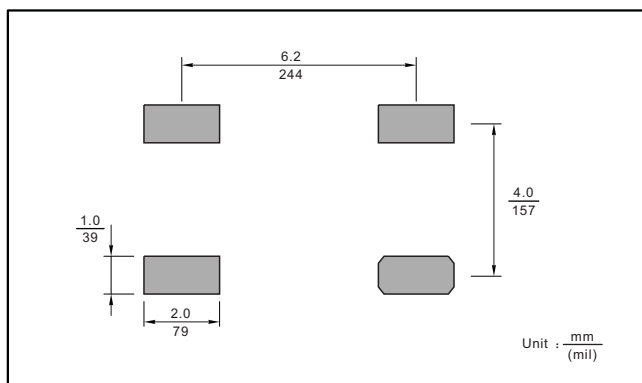
ABS/LBF



ABS/LBF mechanical data

| UNIT | | A | C | D | E | HE | 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 |
|-------------|--------------|
| EABS21 | ETB1S |
| EABS22 | ETB2S |
| EABS24 | ETB4S |
| EABS26 | ETB6S |