

ABS1 THRU ABS10

1A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

FEATURES:

- Glass Passivated Chip Junction
- Reverse Voltage - 100 to 1000 V
- Forward Current - 1 A
- High Surge Current Capability
- Designed for Surface Mount Application

PINNING

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



ABS Package

MECHANICAL DATA

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

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 | ABS1 | ABS2 | ABS4 | ABS6 | ABS8 | ABS10 | 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 $T_c = 125\text{ }^\circ\text{C}$ | I_o | 1 | | | | | | A |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method) | I_{FSM} | 35 | | | | | | A |
| Forward Voltage per element @ $I_F = 1.0\text{A}$ | V_F | 1.1 | | | | | | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_A = 25\text{ }^\circ\text{C}$ @ $T_A = 100\text{ }^\circ\text{C}$ @ $T_A = 125\text{ }^\circ\text{C}$ | I_R | 5 50 100 | | | | | | μA |
| Typical Junction Capacitance (Note1) | C_j | 13 | | | | | | pF |
| Typical Thermal Resistance (Note2) | $R_{\theta JA}$ $R_{\theta JC}$ | 72 20 | | | | | | $^\circ\text{C/W}$ |
| 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" (3.81×3.81 cm) copper pad.

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Fig.1 Average Rectified Output Current Derating Curve

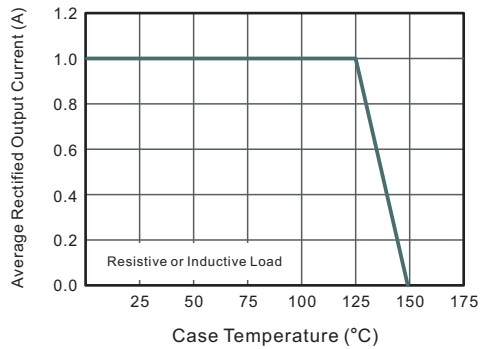


Fig.2 Typical Reverse Characteristics

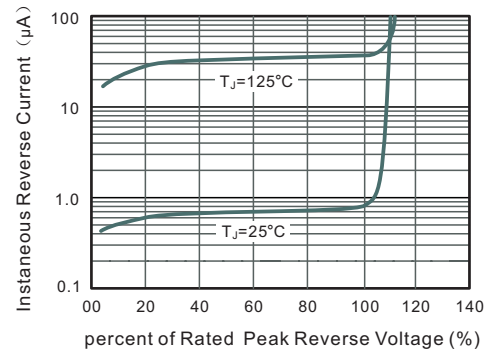


Fig.3 Typical Instantaneous Forward Characteristics

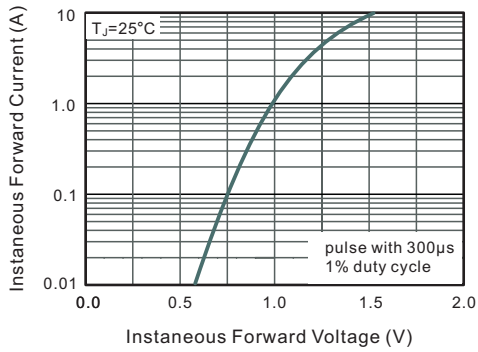


Fig.4 Typical Junction Capacitance

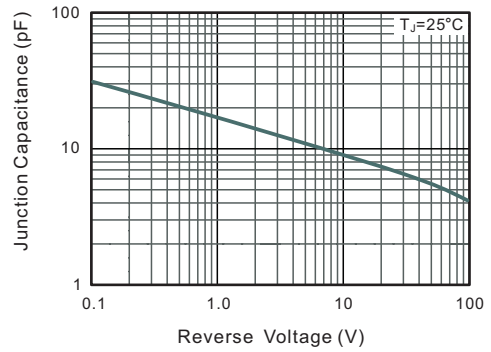
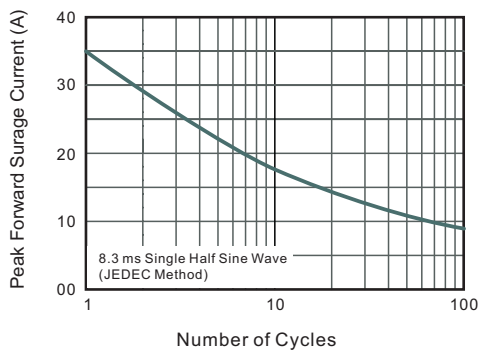


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

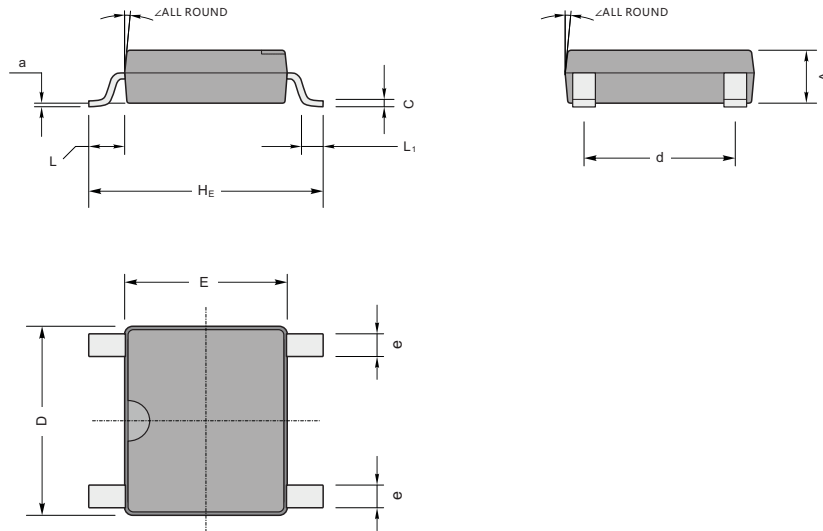


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PACKAGE OUTLINE

Plastic surface mounted package; 4 leads

ABS



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 | | | | |

The recommended mounting pad size

