



SS1040HEWS-AU

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Voltage

40 V

Current

1 A

Features

- Low forward voltage drop
- Deal for automated placement
- Low power loss, high efficiency
- High surge current capability
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard
- AEC-Q101 qualified

Mechanical Data

- Case: SOD-323HE Package
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0002 ounces, 0.005 grams

SOD-323HE



Maximum Ratings and Thermal Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

| PARAMETER | SYMBOL | LIMIT | UNITS |
|---|-----------------------|---------|--------------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 40 | V |
| Maximum Rms Voltage | V_{RMS} | 28 | V |
| Maximum Dc Blocking Voltage | V_{DC} | 40 | V |
| Maximum Average Forward Current | $I_{F(AV)}$ | 1 | A |
| Peak Forward Surge Current: 8.3 ms single half sine-wave superimposed on rated load per diode | I_{FSM} | 22 | A |
| Typical Junction Capacitance Measured at 1 MHz And Applied $V_R = 4V$ | C_J | 50 | pF |
| Typical Thermal Resistance | $R_{\theta JA}^{(1)}$ | 250 | $^\circ\text{C/W}$ |
| | $R_{\theta JC}^{(2)}$ | 50 | |
| | $R_{\theta JL}^{(3)}$ | 50 | |
| Operating Junction Temperature Range | T_J | -55~150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | -55~150 | $^\circ\text{C}$ |



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Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

| PARAMETER | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNITS |
|-----------------|-------------|---|------|------|------|-------|
| Forward Voltage | V_F | $I_F = 0.7\text{ A}, T_J = 25^\circ\text{C}$ | - | 0.43 | - | V |
| | | $I_F = 1\text{ A}, T_J = 25^\circ\text{C}$ | - | - | 0.58 | |
| | | $I_F = 0.7\text{ A}, T_J = 125^\circ\text{C}$ | - | 0.36 | - | |
| | | $I_F = 1\text{ A}, T_J = 125^\circ\text{C}$ | - | 0.41 | - | |
| Reverse Current | $I_R^{(4)}$ | $V_R = 5\text{ V}, T_J = 25^\circ\text{C}$ | - | 1 | - | uA |
| | | $V_R = 40\text{ V}, T_J = 25^\circ\text{C}$ | - | - | 100 | |
| | | $V_R = 40\text{ V}, T_J = 125^\circ\text{C}$ | - | 2.5 | - | mA |

NOTES:

1. Mounted on a FR4 PCB, single-sided copper, mini pad.
2. Mounted on a FR4 PCB, single-sided copper, with 100 cm² copper pad area
3. Mounted on a FR4 PCB, single-sided copper, with 15 mm x 50 mm copper pad area
4. Short duration pulse test used to minimize self-heating effect



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TYPICAL CHARACTERISTIC CURVES

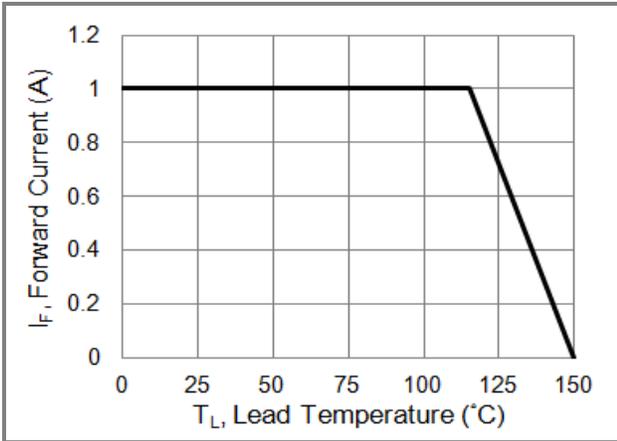


Fig.1 Forward Current Derating Curve

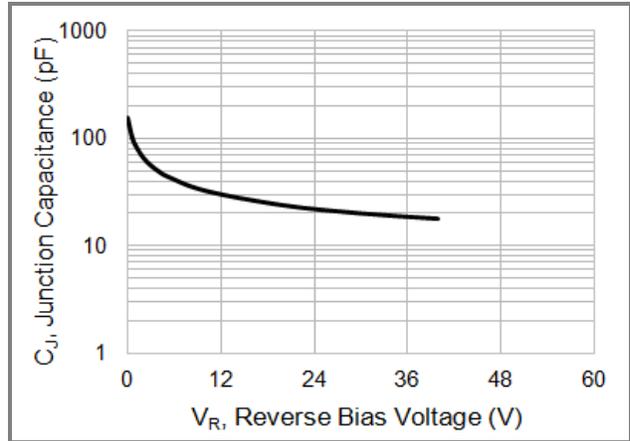


Fig.2 Typical Junction Capacitance

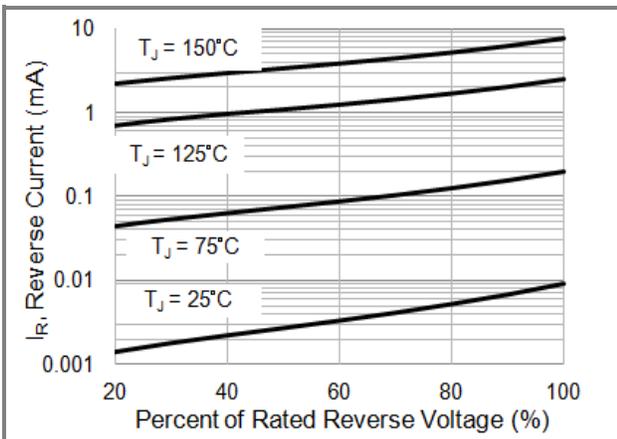


Fig.3 Typical Reverse Characteristics

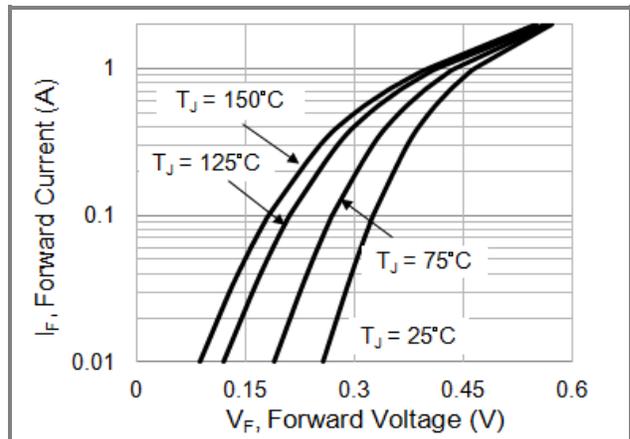


Fig.4 Typical Forward Characteristics

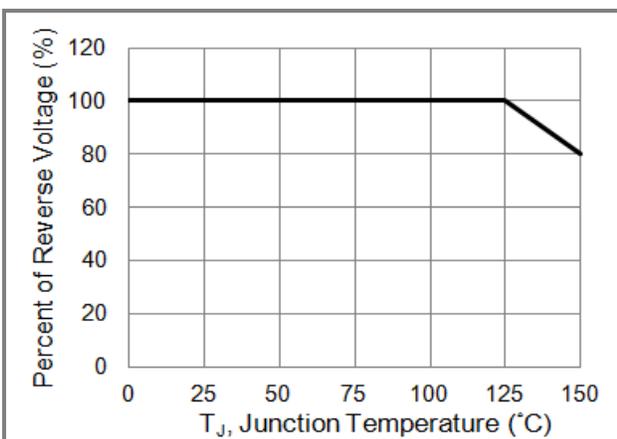


Fig.5 Operating Temperature Derating Curve

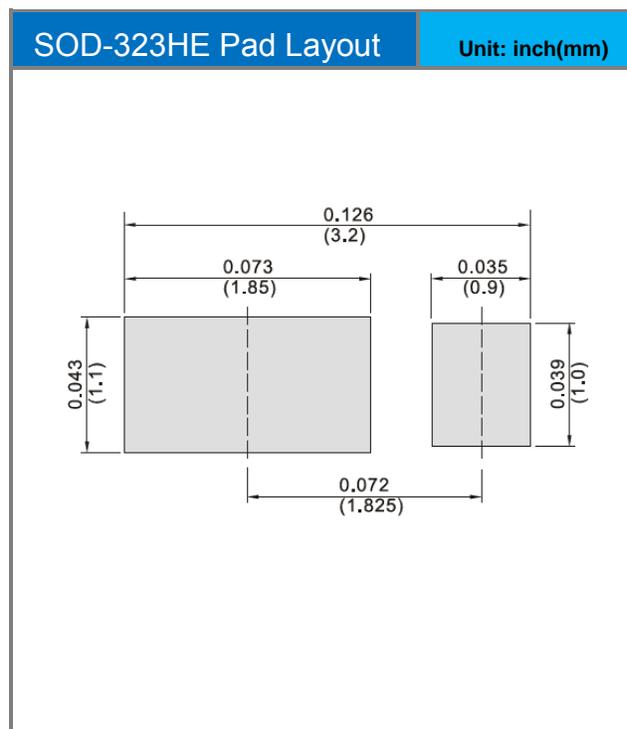
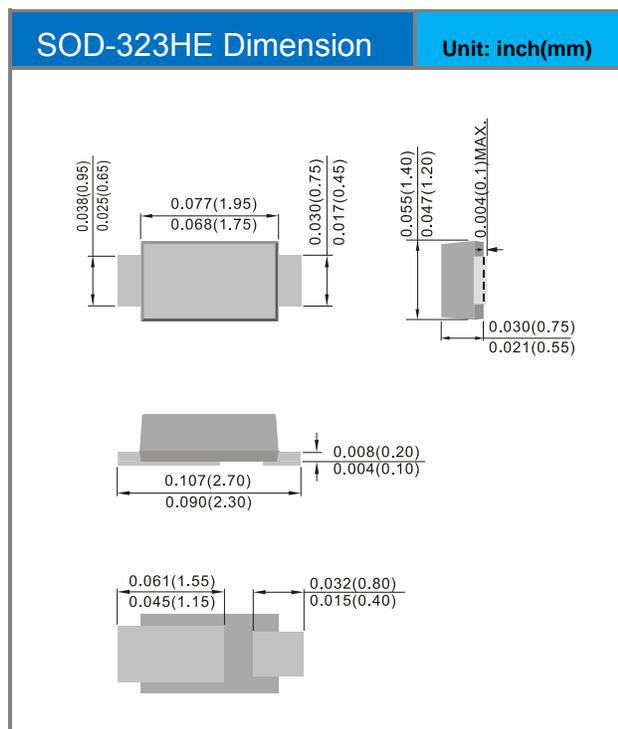


SS1040HEWS-AU

Part No Packing Code Version

| Part No Packing Code | Package Type | Packing Type | Marking | Version |
|------------------------|--------------|--------------|---------|--------------|
| SS1040HEWS-AU_R1_000A1 | SOD-323HE | 5K / 7" Reel | EV | Halogen free |

Packaging Information & Mounting Pad Layout





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