



# SS10100HE-AU

## SURFACE MOUNT LOW VF SCHOTTKY BARRIER RECTIFIER

**Voltage** 100 V **Current** 1 A

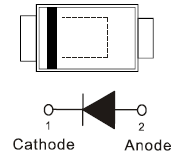
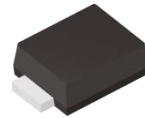
### Features

- 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-123HE Package
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0006 ounces, 0.018 grams

SOD-123HE



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

| PARAMETER  | SYMBOL                | LIMIT   | UNITS              |
|--|-----------------------|---------|--------------------|
| Maximum Repetitive Peak Reverse Voltage  | $V_{RRM}$             | 100     | V                  |
| Maximum Rms Voltage  | $V_{RMS}$             | 70      | V                  |
| Maximum Dc Blocking Voltage  | $V_{DC}$              | 100     | 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 | $I_{FSM}$             | 30      | A                  |
| Typical Junction Capacitance<br>Measured at 1 MHz And Applied $V_R = 4\text{ V}$     | $C_J$                 | 40      | pF                 |
| Typical Thermal Resistance   | $R_{\theta JA}^{(1)}$ | 185     | $^\circ\text{C/W}$ |
|  | $R_{\theta JC}^{(2)}$ | 20      |                    |
| 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 | $V_F$       | $I_F = 0.5\text{ A}, T_J = 25^\circ\text{C}$  | -    | 0.69 | -    | V     |
|                 |             | $I_F = 1\text{ A}, T_J = 25^\circ\text{C}$    | -    | -    | 0.8  |       |
|                 |             | $I_F = 0.5\text{ A}, T_J = 125^\circ\text{C}$ | -    | 0.56 | -    |       |
|                 |             | $I_F = 1\text{ A}, T_J = 125^\circ\text{C}$   | -    | 0.62 | -    |       |
| Reverse Current | $I_R^{(3)}$ | $V_R = 80\text{ V}, T_J = 25^\circ\text{C}$   | -    | 0.04 | -    | uA    |
|                 |             | $V_R = 100\text{ V}, T_J = 25^\circ\text{C}$  | -    | -    | 30   |       |
|                 |             | $V_R = 100\text{ V}, T_J = 125^\circ\text{C}$ | -    | 0.1  | -    | mA    |

**NOTES:**

1. Mounted on a FR4 PCB, single-sided copper, mini pad.
2. Mounted on a FR4 PCB, single-sided copper, with 100cm<sup>2</sup> copper pad area.
3. Short duration pulse test used to minimize self-heating effect.



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## TYPICAL CHARACTERISTIC CURVES

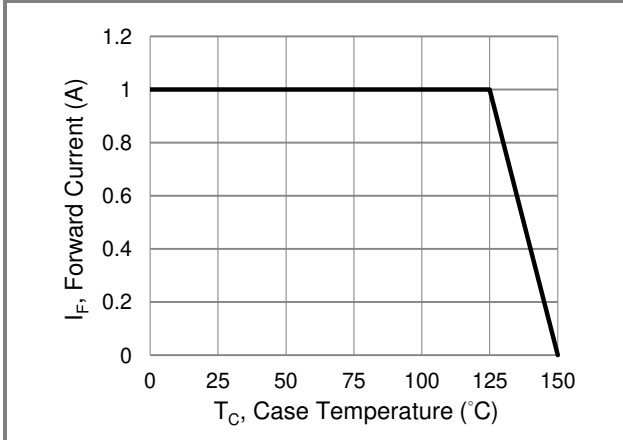


Fig.1 Forward Current Derating Curve

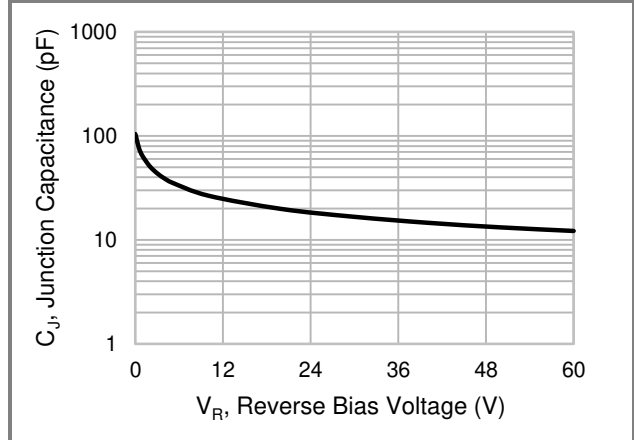


Fig.2 Typical Junction Capacitance

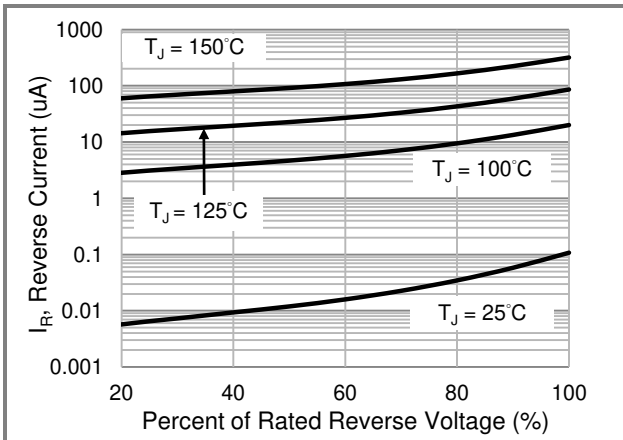


Fig.3 Typical Reverse Characteristics

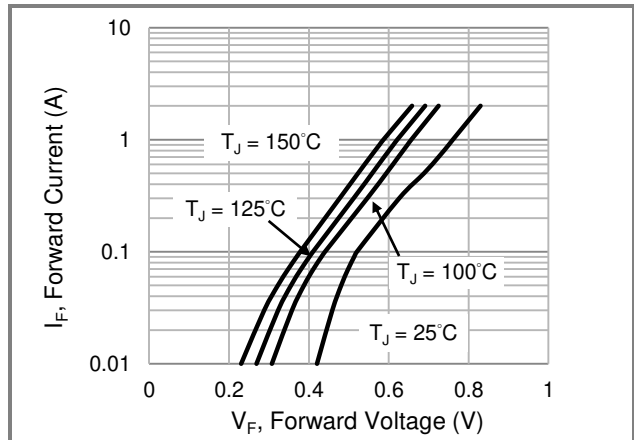


Fig.4 Typical Forward Characteristics

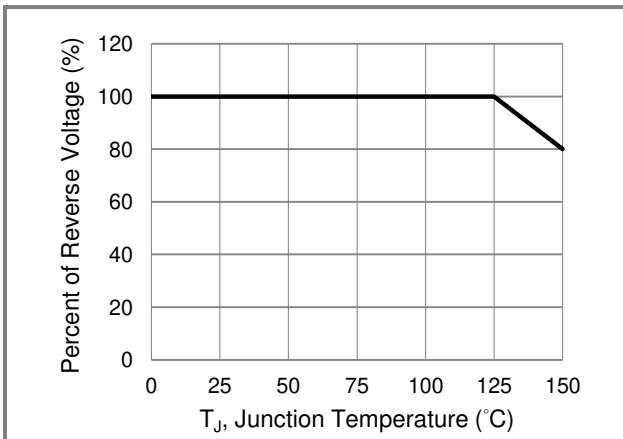


Fig.5 Operating Temperature Derating Curve

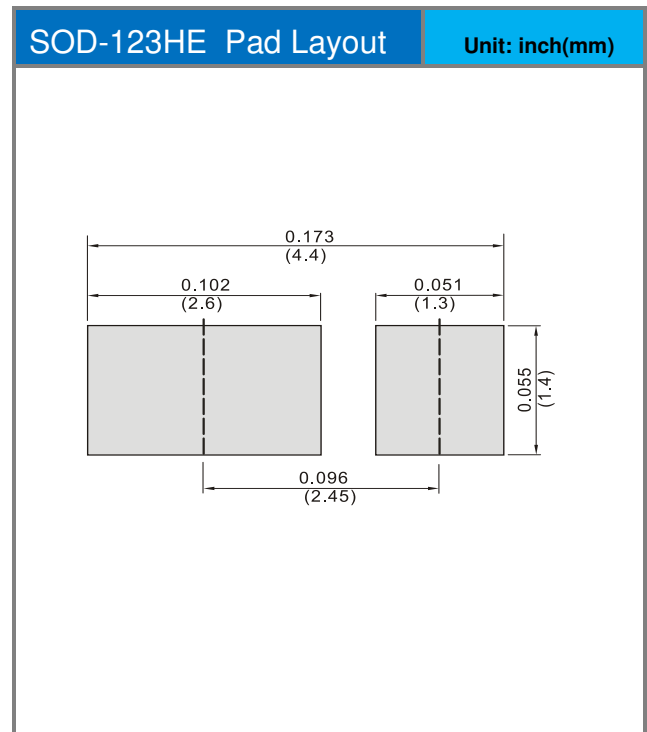
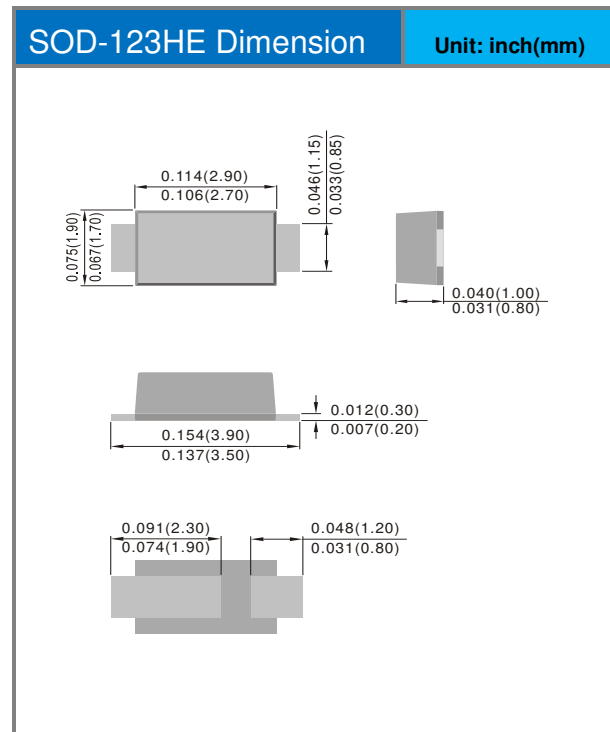


# SS10100HE-AU

## Part No Packing Code Version

| Part No Packing Code  | Package Type | Packing Type | Marking | Version      |
|-----------------------|--------------|--------------|---------|--------------|
| SS10100HE-AU_R1_000A1 | SOD-123HE    | 3K / 7" Reel | EP      | Halogen free |

## Packaging Information & Mounting Pad Layout





## SS10100HE-AU

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