



SS3020HE SERIES

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE 20~200 Volt **CURRENT** 3 Ampere

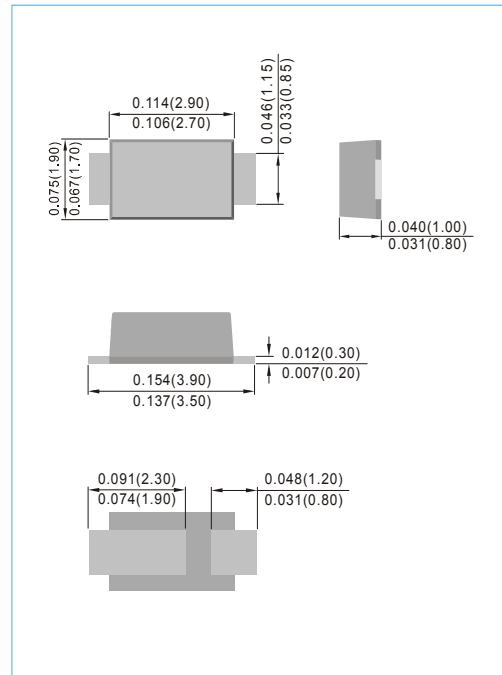
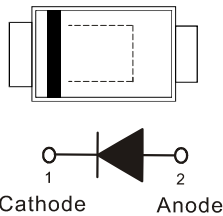
SOD-123HE Unit : inch(mm)

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications in order to optimize board space
- Low power loss,high efficiency
- High surge capacity
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

- Case: SOD-123HE molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity: Color band denotes cathode end
- Approx weight: 0.0006 ounces, 0.0184 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Resistive or inductive load.

| PARAMETER | SYMBOL | SS3020-HE | SS3030-HE | SS3040-HE | SS3060-HE | SS30100-HE | SS30150-HE | SS30200-HE | UNITS | |
|---|------------------------------------|-------------|-----------|-----------|-------------|------------|------------|------------|------------------|-----------------------------|
| Marking Code | - | EA | EB | EC | ED | EF | EH | EJ | - | |
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 20 | 30 | 40 | 60 | 100 | 150 | 200 | V | |
| Maximum RMS Voltage | V_{RMS} | 14 | 21 | 28 | 42 | 70 | 105 | 140 | V | |
| Maximum DC Blocking Voltage | V_{DC} | 20 | 30 | 40 | 60 | 100 | 150 | 200 | V | |
| Maximum Average Forward Current | $I_{F(AV)}$ | 3 | | | | | | | A | |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load | I_{FSM} | 80 | | | | | | | A | |
| Maximum Forward Voltage at 3A (Note 1) | V_F | 0.52 | | 0.65 | | 0.8 | 0.86 | 0.86 | V | |
| Maximum DC Reverse Current $T_J=25^\circ\text{C}$ | I_R | 160 | | 100 | | 20 | 20 | 20 | μA | |
| Typical Thermal Resistance (Note 2) | $R_{\theta JL}$ $R_{\theta JA}$ | 20 105 | | | | | | | | $^\circ\text{C} / \text{W}$ |
| Operating Junction Temperature Range | T_J | -55 to +125 | | | -55 to +150 | | | | $^\circ\text{C}$ | |
| Storage Temperature Range | T_{STG} | -55 to +125 | | | -55 to +150 | | | | $^\circ\text{C}$ | |

NOTES :

1. Pulse Test with PW =300 μsec , 1% Duty Cycle.
2. Mounted on 50cm² FR-4 PCB Board



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TYPICAL CHARACTERISTIC CURVES

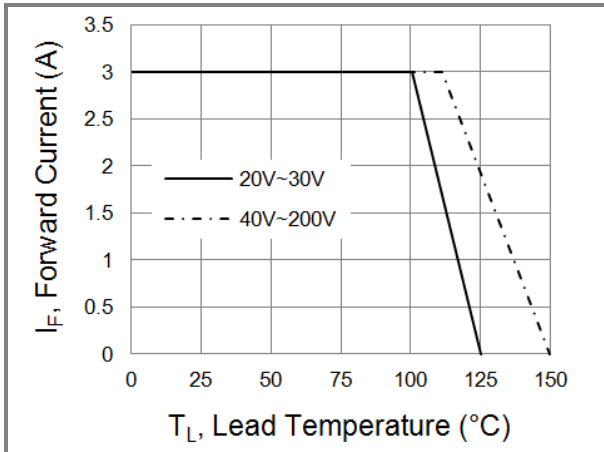


Fig.1 Forward Current Derating Curve

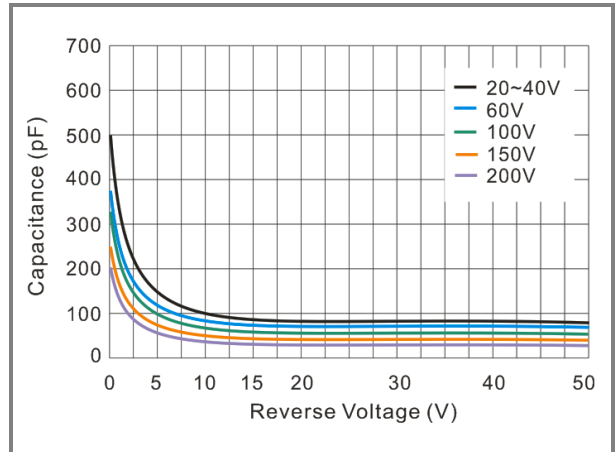


Fig. 2 Typical Junction Capacitance

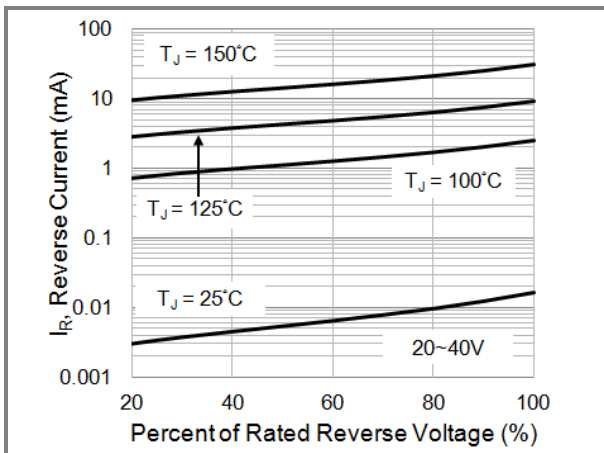


Fig.3 Typical Reverse Characteristics

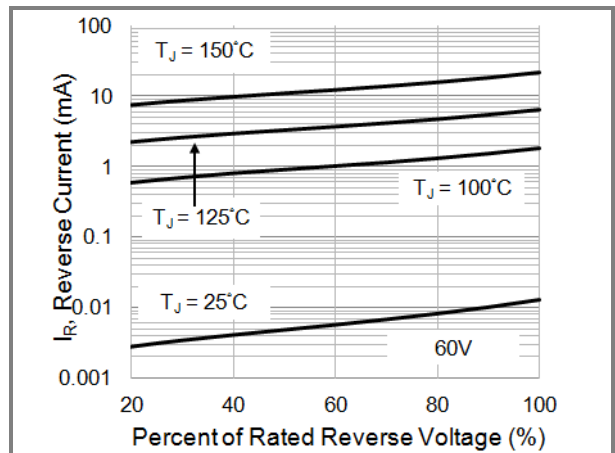


Fig.4 Typical Reverse Characteristics

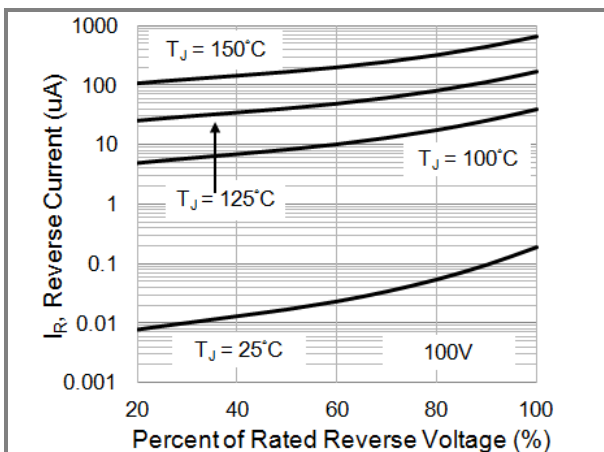


Fig.5 Typical Reverse Characteristics

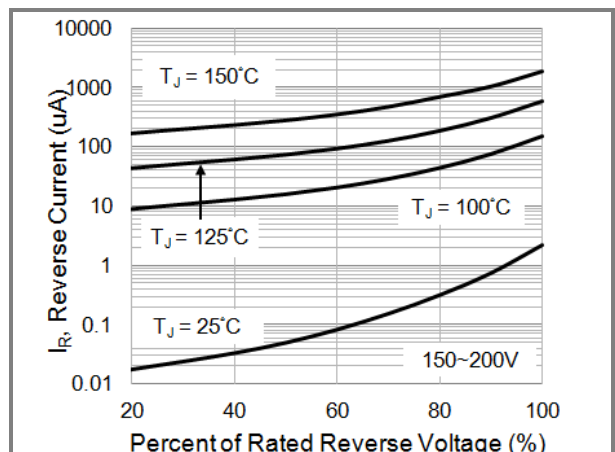
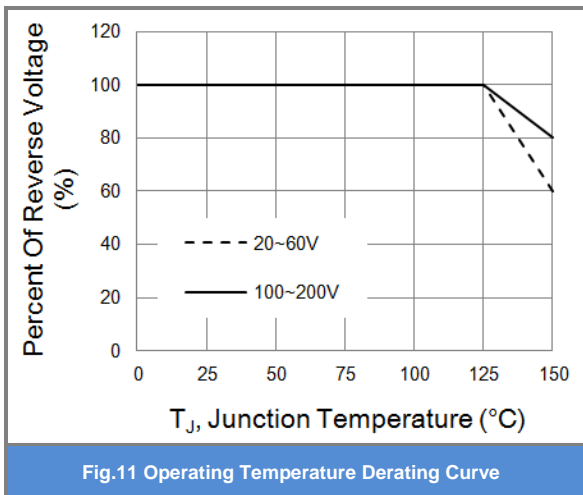
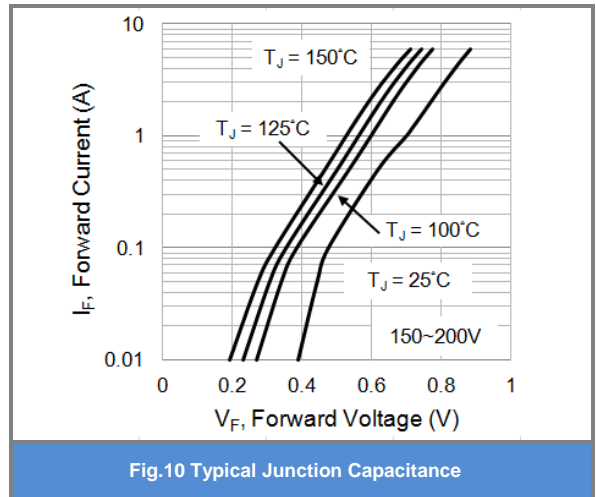
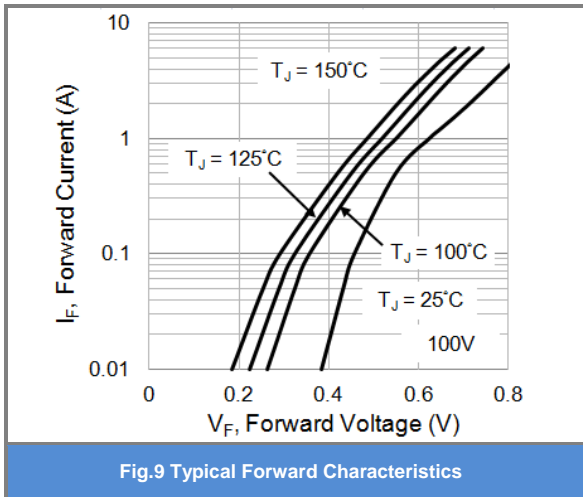
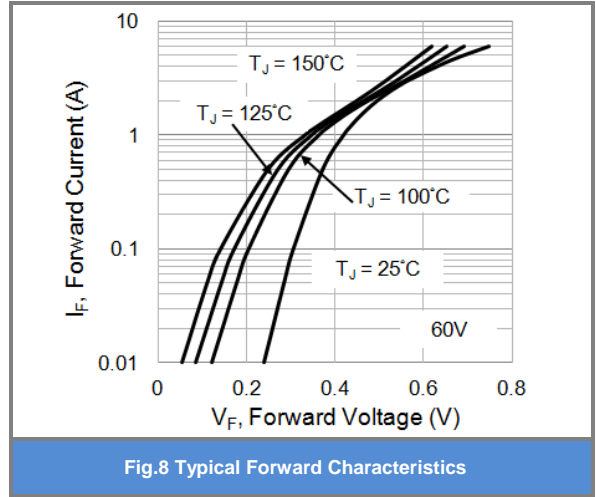
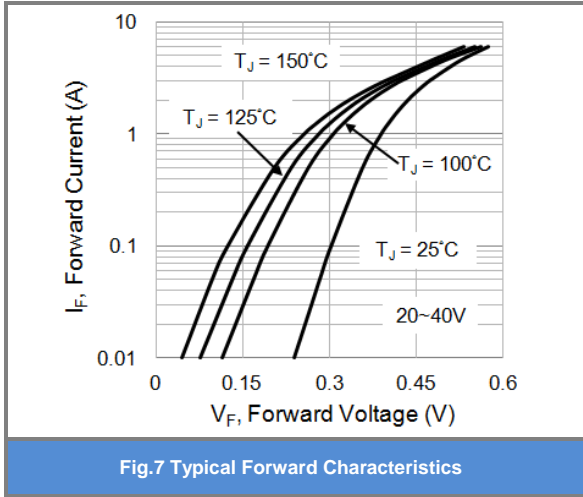


Fig.6 Typical Forward Characteristics



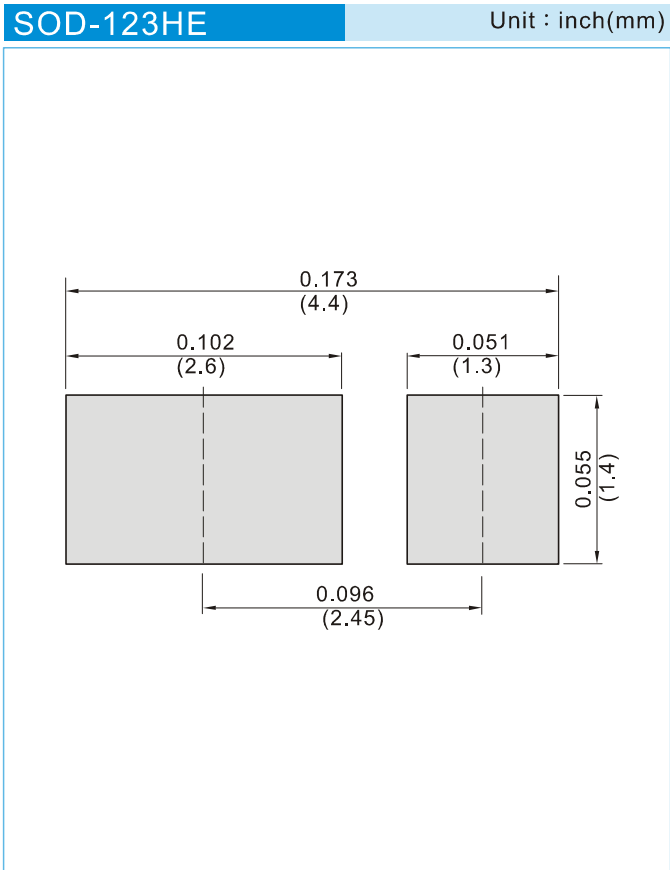
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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
T/R - 10K per 13" plastic Reel
T/R - 3K per 7" plastic Reel



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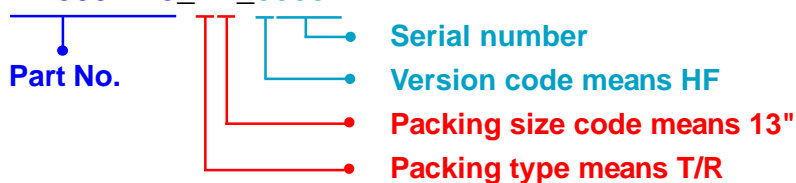
Part No_packing code_Version

SS3020HE_R1_00001

SS3020HE_R2_00001

For example :

RB500V-40_R2_00001



| Packing Code XX | | | | Version Code XXXXX | | |
|--------------------------------------|----------------------|----------------------------------|----------------------|---------------------------|----------------------|---------------------------------------|
| Packing type | 1 st Code | Packing size code | 2 nd Code | HF or RoHS | 1 st Code | 2 nd ~5 th Code |
| Tape and Ammunition Box (T/B) | A | N/A | 0 | HF | 0 | serial number |
| Tape and Reel (T/R) | R | 7" | 1 | RoHS | 1 | serial number |
| Bulk Packing (B/P) | B | 13" | 2 | | | |
| Tube Packing (T/P) | T | 26mm | X | | | |
| Tape and Reel (Right Oriented) (TRR) | S | 52mm | Y | | | |
| Tape and Reel (Left Oriented) (TRL) | L | PANASERT T/B CATHODE UP (PBCU) | U | | | |
| FORMING | F | PANASERT T/B CATHODE DOWN (PBCD) | D | | | |



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