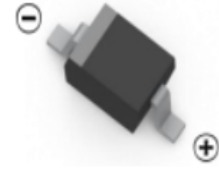


SCHOTTKY BARRIER DIODE

FEATURES

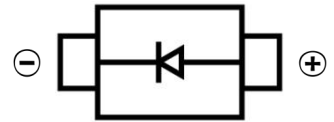
- Low Forward Voltage
- Surface Mount device
- For use in low voltage high frequency inverters and polarity protection applications



SOD-323

MECHANICAL DATA

- Case: SOD-323
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Weight: 0.005 grams (approximate)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

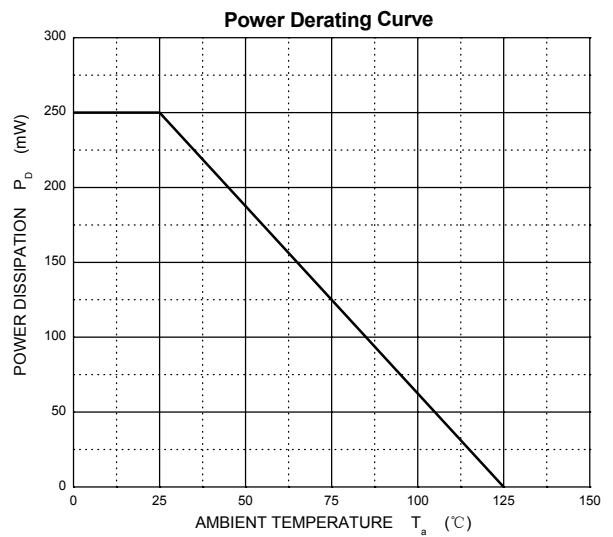
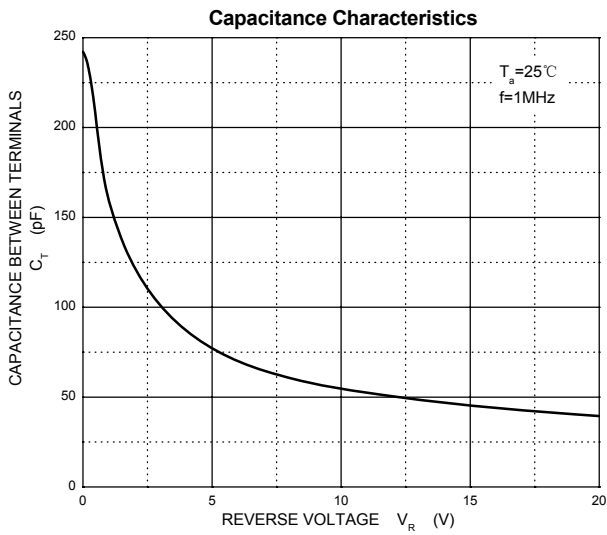
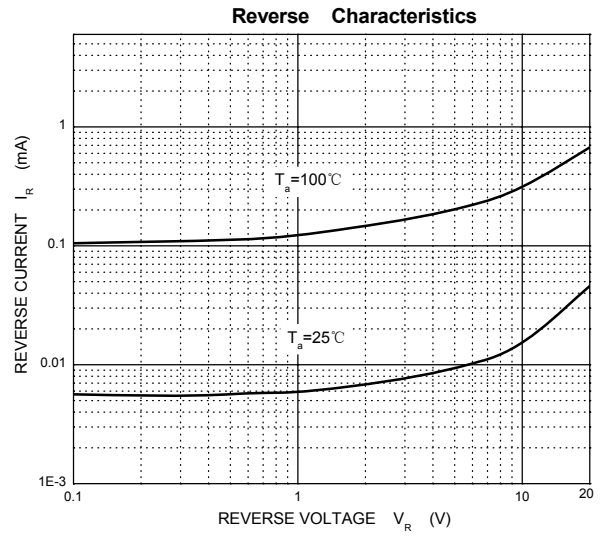
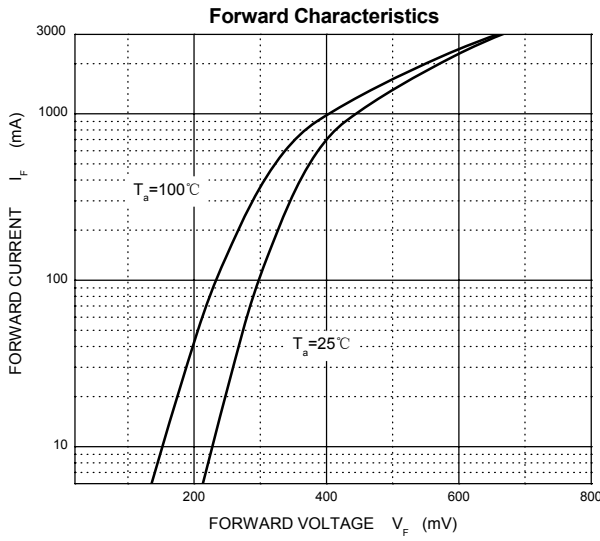
| | 1N5817WS | 1N5818WS | 1N5819WS | UNITS |
|--|-------------|----------|----------|-----------------------------|
| Maximum Recurrent Peak Reverse Voltage | 20 | 30 | 40 | V |
| Maximum RMS Voltage | 14 | 21 | 28 | V |
| Maximum DC Blocking Voltage | 20 | 30 | 40 | V |
| Maximum Average Forward Rectified Current | 1.0 | | | A |
| Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load (JECEC method) $T_L=70^{\circ}\text{C}$ | 9 | | | A |
| Maximum Forward Voltage at 1.0A DC | 0.45 | 0.55 | 0.60 | V |
| Maximum Forward Voltage at 3.0A DC | 0.75 | 0.875 | 0.90 | V |
| Maximum Average DC Reverse Current $T_A=25^{\circ}\text{C}$ at Rated Reverse Voltage $T_A=100^{\circ}\text{C}$ | 0.5 10 | | | mA mA |
| Typical Junction capacitance (Note 1) | 110 | | | pF |
| Typical Thermal Resistance(Note 2) | 80 | | | $^{\circ}\text{C}/\text{W}$ |
| Operating and Storage Temperature Range | -50 to +125 | | | $^{\circ}\text{C}$ |

NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC
2. Thermal Resistance Junction to Ambient

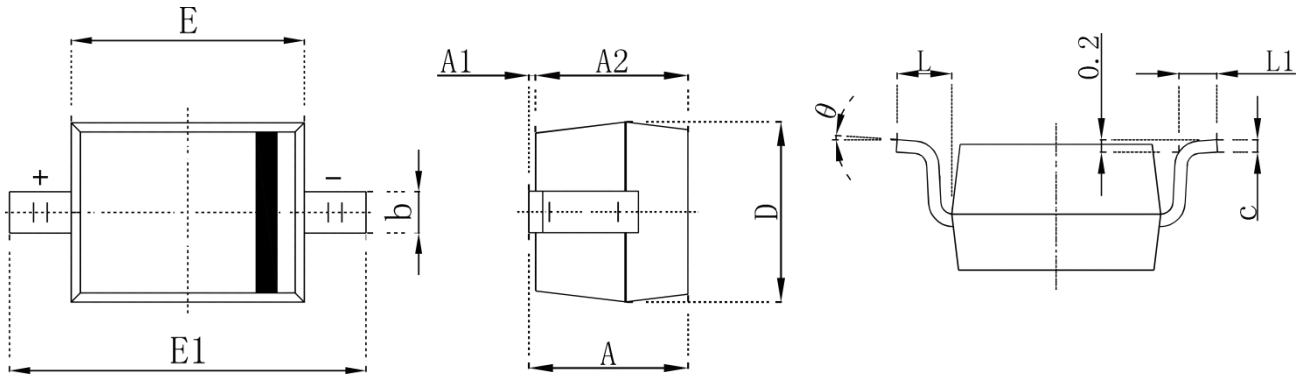
SCHOTTKY BARRIER DIODE

Typical Characteristics



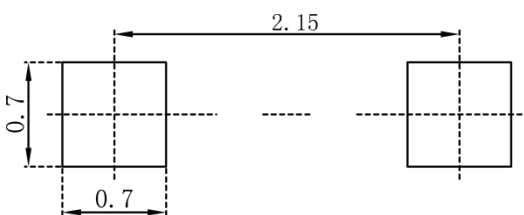
SCHOTTKY BARRIER DIODE

SOD-323 Package Outline Dimensions



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|-------|----------------------|-------|
| | Min. | Max. | Min. | Max. |
| A | | 1.000 | | 0.039 |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 |
| A2 | 0.800 | 0.900 | 0.031 | 0.035 |
| b | 0.250 | 0.350 | 0.010 | 0.014 |
| c | 0.080 | 0.150 | 0.003 | 0.006 |
| D | 1.200 | 1.400 | 0.047 | 0.055 |
| E | 1.600 | 1.800 | 0.063 | 0.071 |
| E1 | 2.250 | 2.750 | 0.100 | 0.108 |
| L | 0.475 REF | | 0.019 REF | |
| L1 | 0.250 | 0.400 | 0.010 | 0.016 |
| θ | 0° | 8° | 0° | 8° |

SOD-323 Suggested Pad Layout



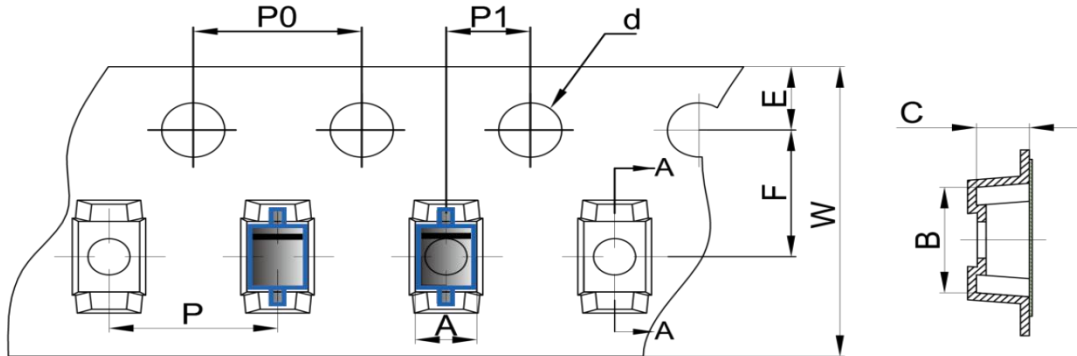
Note:

1. Controlling dimension: in millimeters
2. General tolerance: $\pm 0.05\text{mm}$
3. The pad layout is for reference purposes only

SCHOTTKY BARRIER DIODE

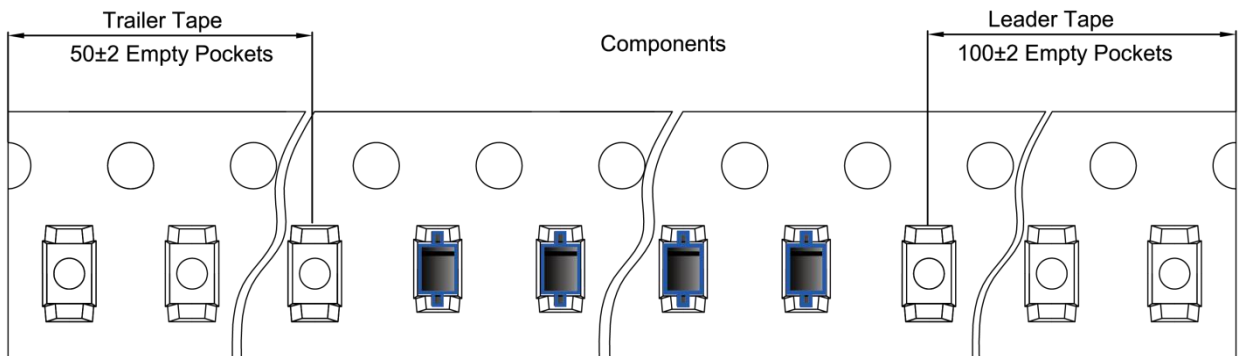
SOD-323 Tape and Reel

SOD-323 Embossed Carrier Tape

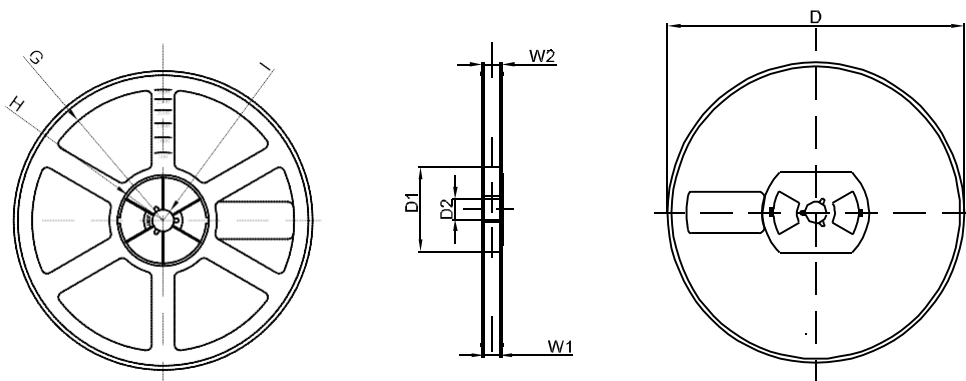


| DIMENSIONS ARE IN MILLIMETER | | | | | | | | | | |
|------------------------------|------|------|------|-------|------|------|------|------|------|------|
| TYPE | A | B | C | d | E | F | P0 | P | P1 | W |
| SOD-323 | 1.48 | 3.3 | 1.25 | Ø1.50 | 1.75 | 3.50 | 4.00 | 4.00 | 2.00 | 8.00 |
| TOLERANCE | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1 |

SOD-323 Tape Leader and Trailer



SOD-323 Reel



| DIMENSIONS ARE IN MILLIMETER | | | | | | | | |
|------------------------------|------|-------|-------|-----|--------|-------|------|-------|
| REEL OPTION | D | D1 | D2 | G | H | I | W1 | W2 |
| 7" DIA | Ø178 | 54.40 | 13.00 | R78 | R25.60 | R6.50 | 9.50 | 12.30 |
| TOLERANCE | ±2 | ±1 | ±1 | ±1 | ±1 | ±1 | ±1 | ±1 |