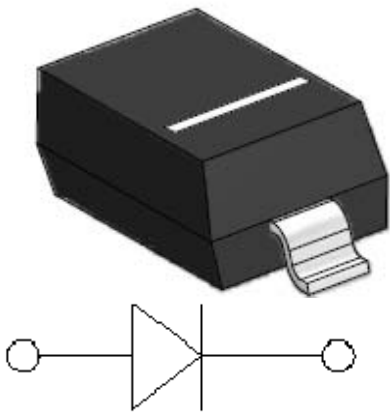


Small Signal Schottky Diode



Features

- V_R 100V
- I_{FAV} 150mA

Mechanical Data

- **Package:** SOD-323
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** S9

■Maximum Ratings ($T_A=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | Conditions | VALUE |
|---|------------|---------------------------|--------------------|-------------|
| Repetitive peak reverse voltage | V_{RRM} | V | | 100 |
| Non-Repetitive Peak Forward Surge Current | I_{FSM} | mA | $t_p=8.3\text{ms}$ | 750 |
| Average forward current | I_{FAV} | mA | | 150 |
| Power dissipation | P_D | mW | | 200 |
| Thermal Resistance From Junction To Ambient | R_{thJA} | $^\circ\text{C}/\text{W}$ | | 625 |
| Junction temperature | T_j | $^\circ\text{C}$ | | 125 |
| Storage temperature range | T_{stg} | $^\circ\text{C}$ | | -55 to +150 |

■Electrical Characteristics ($T_A=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | Conditions | VALUE |
|---------------------------|--------|---------------|--------------------------------|-------|
| Maximum Forward voltage | V_F | V | $I_F=0.1\text{mA}$ | 0.25 |
| | | V | $I_F=10\text{mA}$ | 0.45 |
| | | V | $I_F=250\text{mA}$ | 1 |
| Maximum Reverse current | I_R | μA | $V_R=1.5\text{V}$ | 0.3 |
| | | μA | $V_R=10\text{V}$ | 0.5 |
| | | μA | $V_R=50\text{V}$ | 1 |
| | | μA | $V_R=75\text{V}$ | 2 |
| Minimum Breakdown voltage | V_R | V | $I_R=100\mu\text{A}$ | 100 |
| Maximum Diode capacitance | C_D | pF | $V_R=0\text{V}, f=1\text{MHz}$ | 20 |
| | | | $V_R=1\text{V}, f=1\text{MHz}$ | 12 |



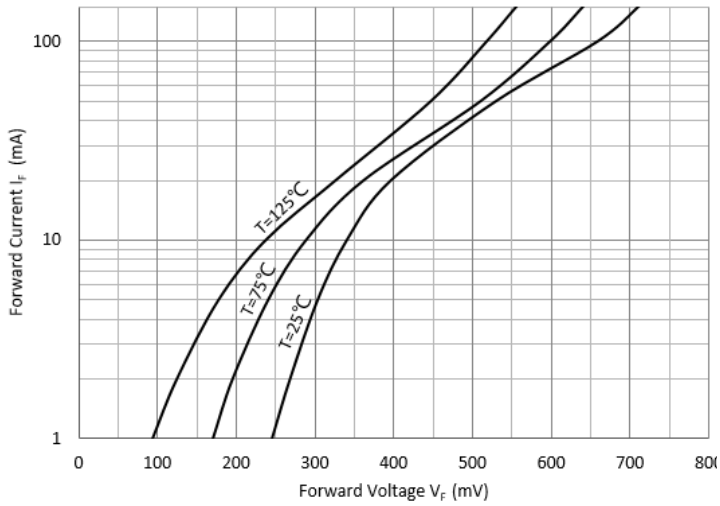
BAT46WS

Ordering Information (Example)

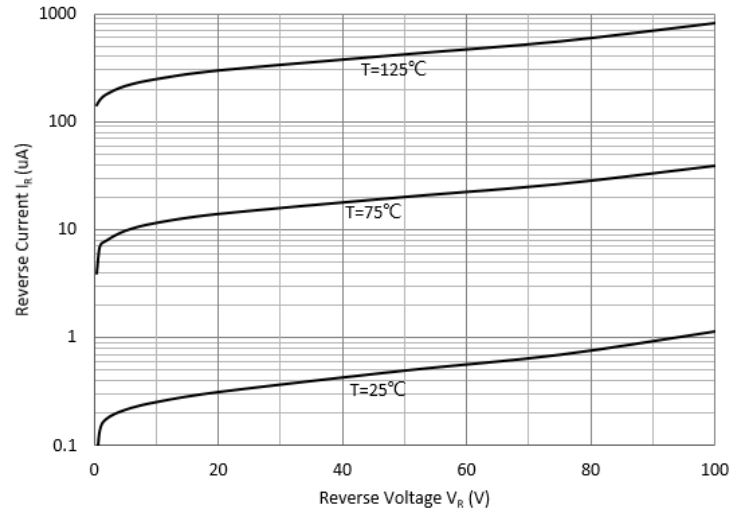
| PREFERRED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| BAT46WS | F2 | Approximate 0.004 | 3000 | 30000 | 120000 | 7" reel |

Characteristics (Typical)

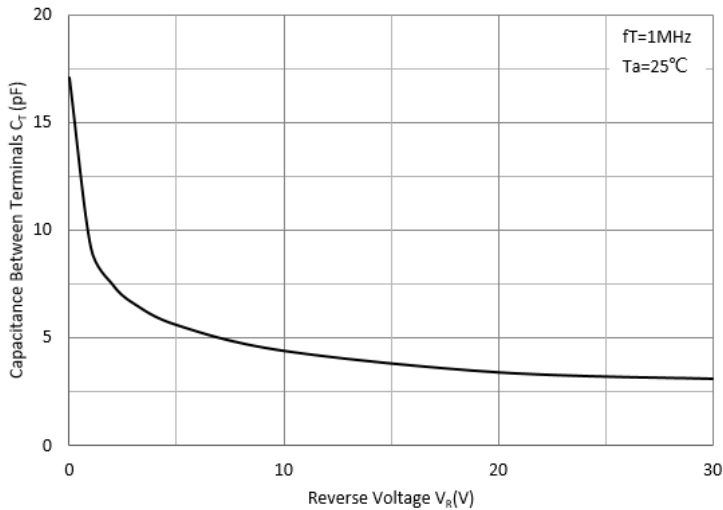
Forward Characteristics



Reverse Characteristics



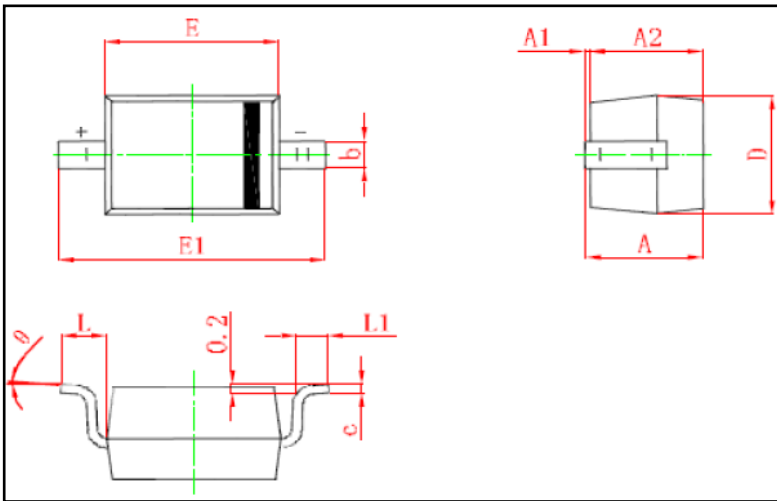
Capacitance Characteristics





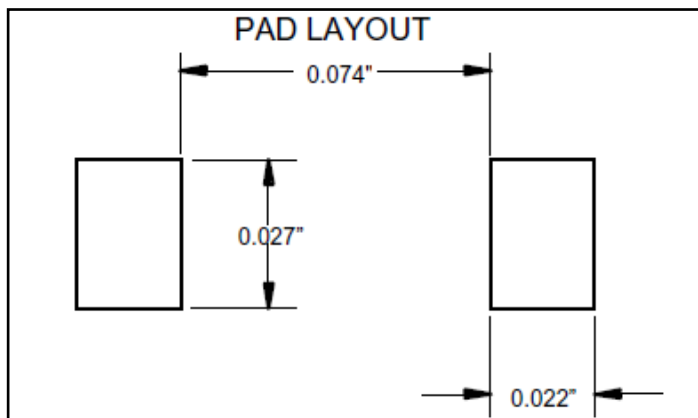
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■ SOD-323 Package Outline Dimensions



| Symbol | Min. (mm) | Max. (mm) |
|--------|-----------|-----------|
| A | | 1.000 |
| A1 | 0.000 | 0.100 |
| A2 | 0.800 | 0.900 |
| b | 0.250 | 0.400 |
| c | 0.080 | 0.150 |
| D | 1.200 | 1.400 |
| E | 1.600 | 1.800 |
| E1 | 2.500 | 2.700 |
| L | 0.475REF | |
| L1 | 0.250 | 0.400 |
| θ | 0° | 8° |

■ SOD-323 Soldering Footprint



Unit: inches



BAT46WS

Disclaimer

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