

BAV19WS THRU BAV21WS

Small-Signal Switching Diodes



Features

- V_R 100V/150V/200V
- I_{FAV} 200mA

Typical Applications

- Extreme fast switches

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 |
|---------|---------|
| BAV19WS | A8 |
| BAV20WS | T2 |
| BAV21WS | T3 |

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

| PARAMETER | SYMBOL | UNIT | Conditions | VALUE | |
|--|-----------------|---------------------------|-----------------------------------|-------------|-----|
| Repetitive peak reverse voltage | V_{RRM} | V | | BAV19WS | 120 |
| | | | | BAV20WS | 200 |
| | | | | BAV21WS | 250 |
| Non-Repetitive Peak Forward Surge Current | I_{FSM} | A | $t=1\text{s}$ $t=1\mu\text{s}$ | 0.5 2.5 | |
| Average forward current | I_{FAV} | mA | | 200 | |
| Power dissipation | P_{tot} | mW | | 250 | |
| Thermal Resistance Junction to Ambient Air | $R_{\theta JA}$ | $^\circ\text{C}/\text{W}$ | | 500 | |
| Maximum junction temperature | T_j | $^\circ\text{C}$ | | -65 to +150 | |
| Storage temperature range | T_{stg} | $^\circ\text{C}$ | | -65 to +150 | |

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

| PARAMETER | SYMBOL | UNIT | Conditions | VALUE |
|-------------------------------|------------|------|---|---------------------|
| Maximum Forward voltage | V_F | V | $I_F=100\text{mA}$ | 1.0 |
| | | | $I_F=200\text{mA}$ | 1.25 |
| Maximum Reverse current | I_R | nA | BAV19WS | $V_R=100\text{V}$ |
| | | | BAV20WS | $V_R=150\text{V}$ |
| | | | BAV21WS | $V_R=200\text{V}$ |
| Minimum Breakdown voltage | $V_{(BR)}$ | V | BAV19WS | $I_R=10\mu\text{A}$ |
| | | | BAV20WS | $I_R=10\mu\text{A}$ |
| | | | BAV21WS | $I_R=10\mu\text{A}$ |
| Maximum Diode capacitance | C_D | pF | $V_R=0\text{V}$, $f=1\text{MHz}$ | 5 |
| Maximum Reverse recovery time | t_{rr} | ns | $I_F=I_R=30\text{mA}$, $R_L=100\Omega$, $I_{RR}=3\text{mA}$ | 50 |

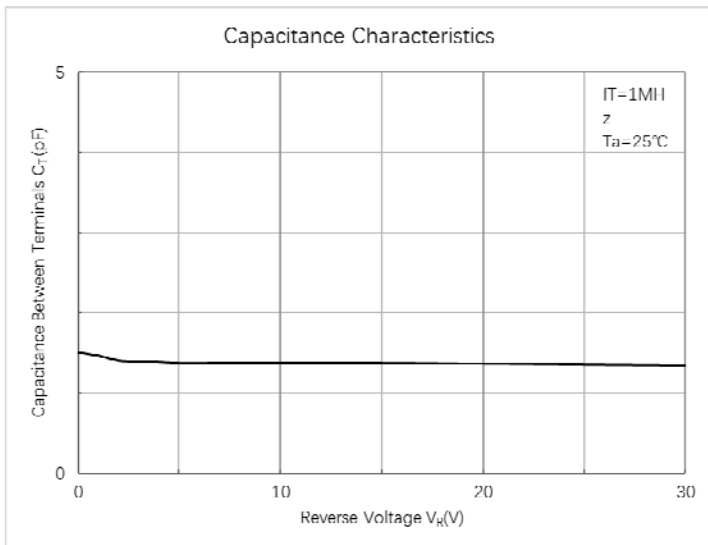
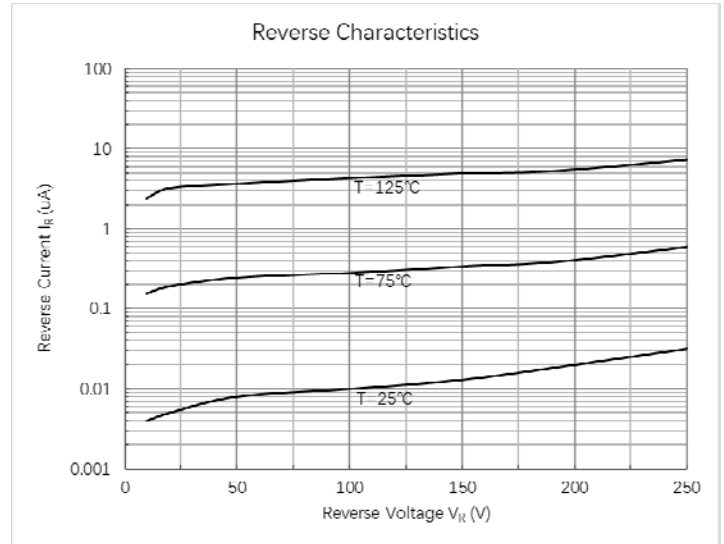
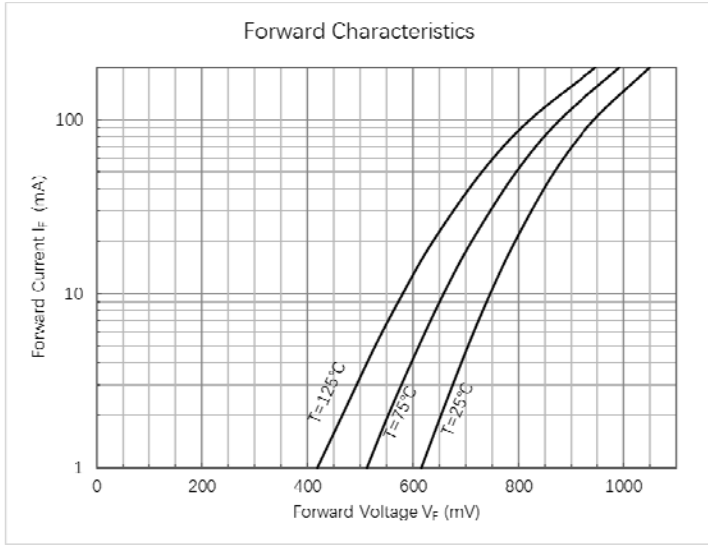


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Ordering Information (Example)

| PREFERED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|----------------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| BAV19WS THRU BAV21WS | F2 | Approximate 0.004 | 3000 | 30000 | 120000 | 7" reel |

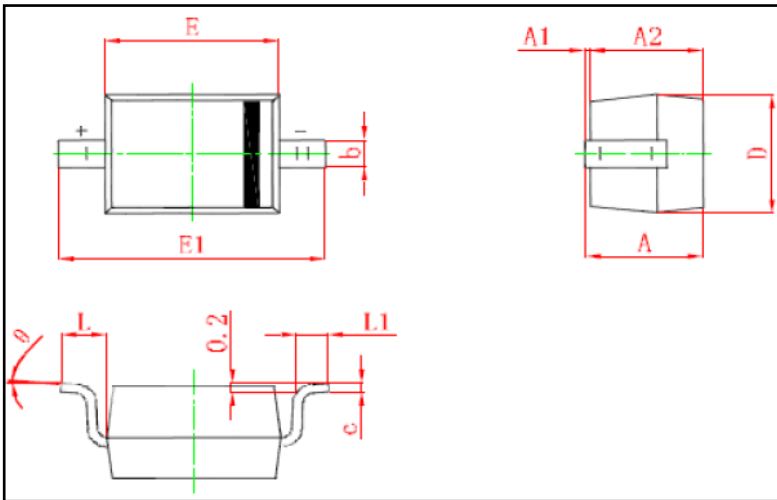
Characteristics(Typical)





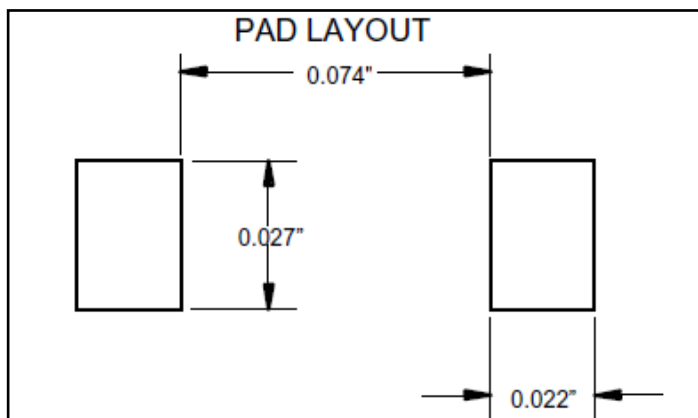
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■ SOD-323 Package Outline Dimensions



| 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



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