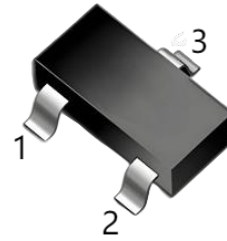


Fast Switching Diode

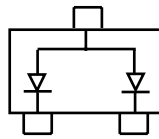
| Parameter | Value | Unit |
|-----------|-------|------|
| V_R | 70 | V |
| I_F | 200 | mA |



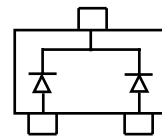
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Features

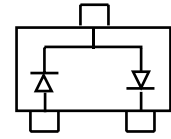
- Fast Switching Speed
- For General Purpose Switching
- High Conductance



BAW56
Marking: A1



BAV70
Marking: A4



BAV99
Marking: A7

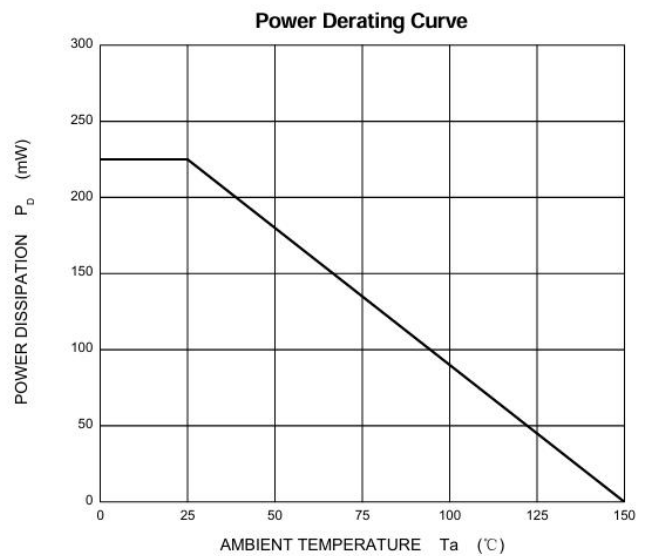
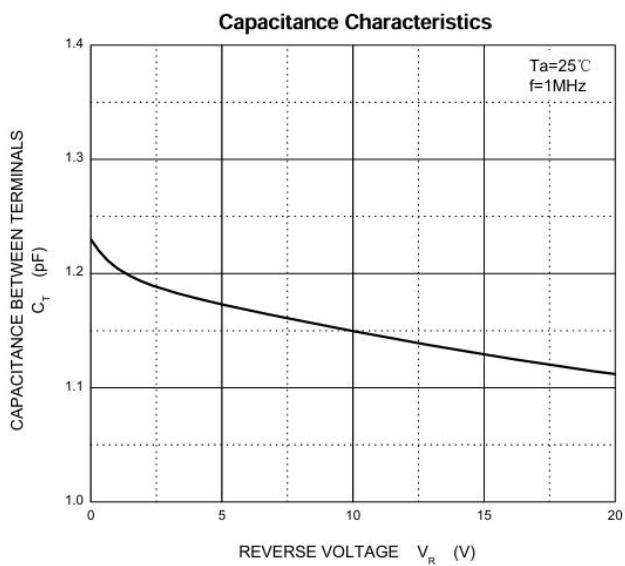
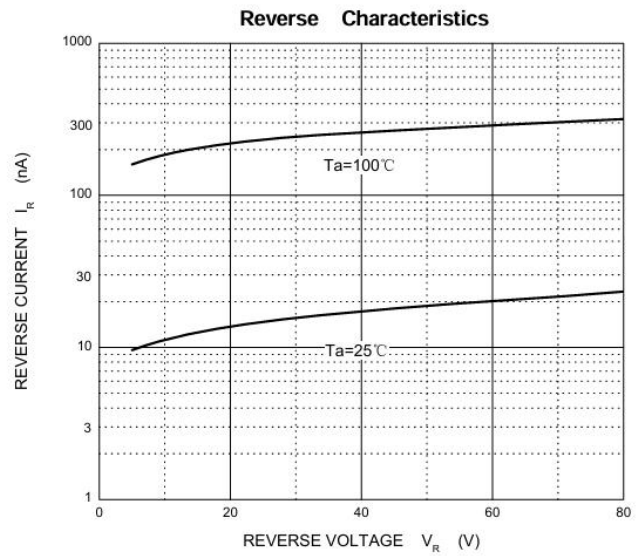
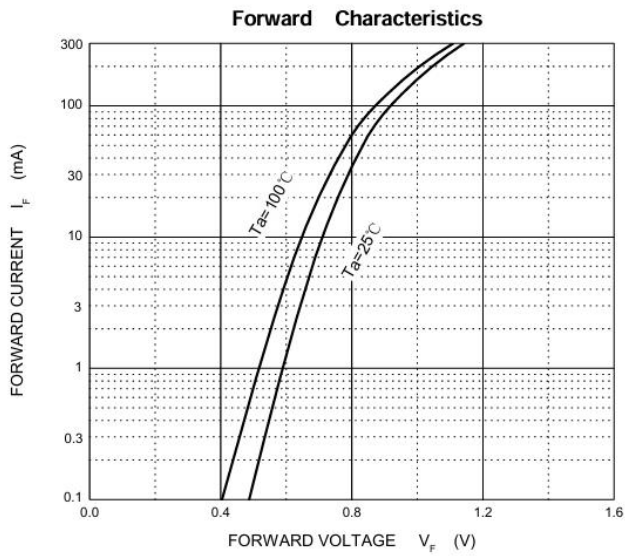
Absolute Maximum Ratings (Ta=25°C unless otherwise noted)

| Parameter | Symbol | Limits | Unit |
|--|-----------------|---------|------|
| Reverse voltage | V_R | 70 | V |
| Forward Current | I_F | 200 | mA |
| Peak Forward Surge Current | $I_{FM(surge)}$ | 500 | mA |
| Power Dissipation | P_D | 225 | mW |
| Thermal Resistance Junction to Ambient Air | $R_{\theta JA}$ | 556 | °C/W |
| Junction temperature | T_J | 150 | °C |
| Storage temperature range | T_{STG} | -55-150 | °C |

Electrical Characteristics (Ta=25°C unless otherwise noted)

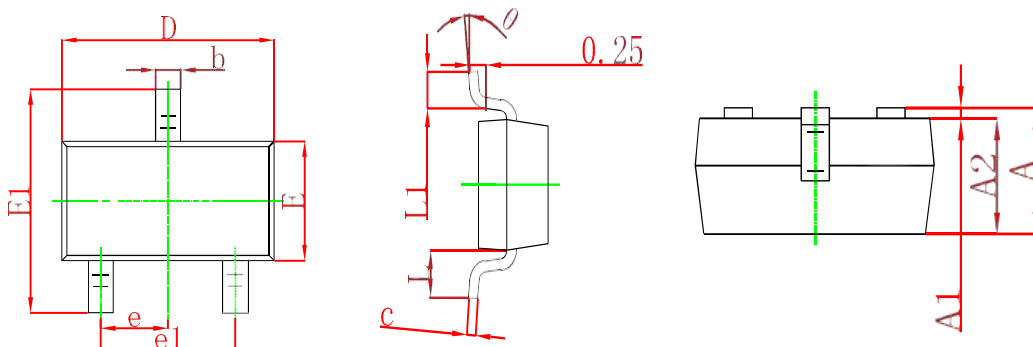
| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|-------------------------------|----------|------|------|-------|---------|--|
| Reverse Breakdown Voltage | V_R | 70 | | | V | $I_R=100\mu A$ |
| Forward voltage | V_{F1} | | | 0.715 | V | $I_F=1mA$ |
| | V_{F2} | | | 0.855 | V | $I_F=10mA$ |
| | V_{F3} | | | 1 | V | $I_F=50mA$ |
| | V_{F4} | | | 1.25 | V | $I_F=150mA$ |
| Reverse current | I_R | | | 2.5 | μA | $V_R=70V$ |
| Capacitance between terminals | C_T | | | 1.5 | pF | $V_R=0, f=1MHz$ |
| Reverse recovery time | t_{rr} | | | 6 | ns | $I_F=I_R=10mA, I_{rr}=0.1 \times I_R, R_L=100\Omega$ |

Typical Characteristics



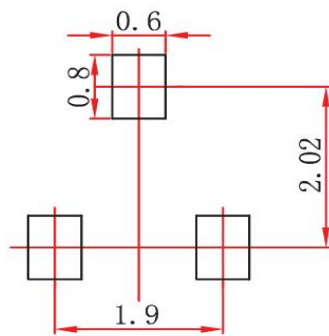
Package Outlines (Units: mm)

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| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|----------|---------------------------|-------|----------------------|-------|
| | Min. | Max. | Min. | Max. |
| A | 0.900 | 1.150 | 0.035 | 0.045 |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 |
| A2 | 0.900 | 1.050 | 0.035 | 0.041 |
| b | 0.300 | 0.500 | 0.012 | 0.020 |
| c | 0.080 | 0.150 | 0.003 | 0.006 |
| D | 2.800 | 3.000 | 0.110 | 0.118 |
| E | 1.200 | 1.400 | 0.047 | 0.055 |
| E1 | 2.250 | 2.550 | 0.089 | 0.100 |
| e | 0.950 TYP | | 0.037 TYP | |
| e1 | 1.800 | 2.000 | 0.071 | 0.079 |
| L | 0.550 REF | | 0.022 REF | |
| L1 | 0.300 | 0.500 | 0.012 | 0.020 |
| θ | 0° | 8° | 0° | 8° |

SOT-23 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

***Important Usage Information and Disclaimer**

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