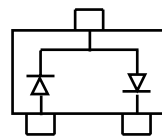
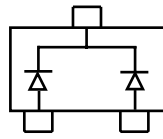
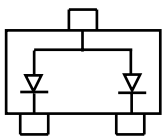
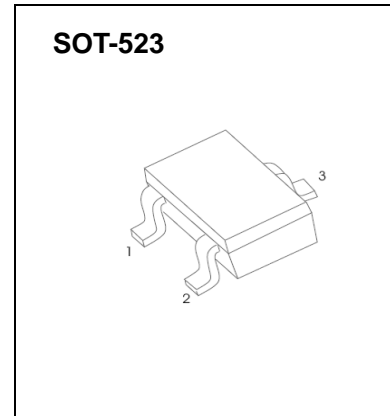


SOT-523 Plastic-Encapsulate Diodes

BAW56T/BAV70T/BAV99T SWITCHING DIODE

FEATURES

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



BAW56T Marking: A1

BAV70T Marking: A4

BAV99T Marking: A7

Maximum Ratings @Ta=25°C

| Parameter | Symbol | Limit | Unit |
|---------------------------|-----------|----------|------|
| Reverse voltage | V_R | 85 | V |
| Forward current | I_o | 75 | mA |
| Forward power dissipation | P_D | 150 | mW |
| Junction temperature | T_j | 150 | °C |
| Storage temperature | T_{stg} | -55~+150 | °C |

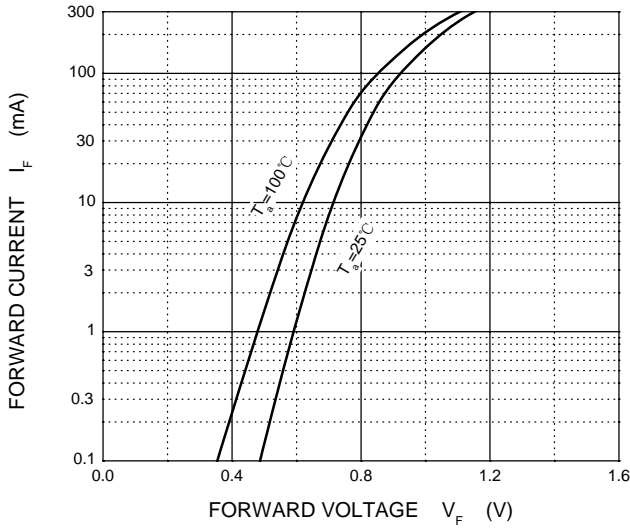
ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

| Parameter | Symbol | Test conditions | Min | Max | Unit |
|---------------------------------|------------|--|-----|----------------------------|---------|
| Reverse breakdown voltage | $V_{(BR)}$ | | 85 | | V |
| Reverse voltage leakage current | I_{R1} | $V_R=75V$ | | 2 | μA |
| | I_{R2} | $V_R=25V$ | | 0.03 | μA |
| Forward voltage | V_F | $I_F=1mA$ $I_F=10mA$ $I_F=50mA$ $I_F=150mA$ | | 715 855 1000 1250 | mV |
| Diode capacitance | C_D | $V_R=0$ $f=1MHz$ | | 1.5 | pF |
| Reverse recovery time | t_{rr} | $I_F=I_R=10mA$ $I_{tr}=0.1 \times I_R, R_L=100\Omega$ | | 4 | ns |

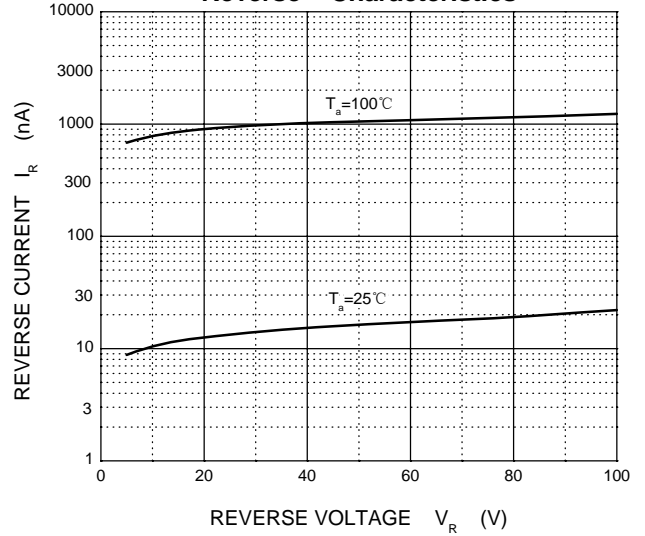
Typical Characteristics

BAV99T

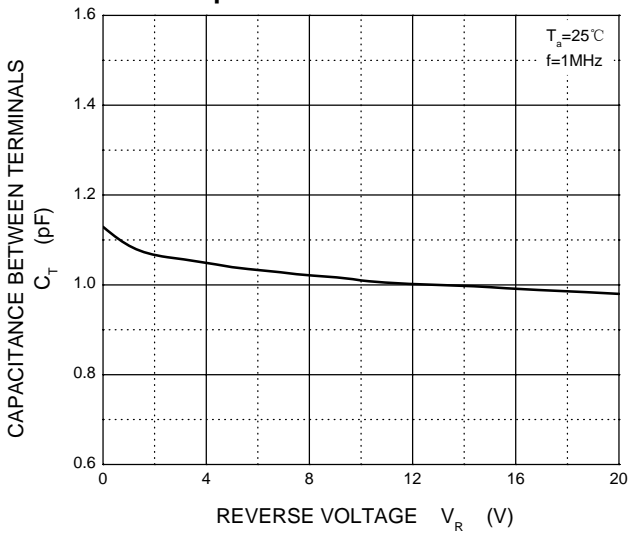
Forward Characteristics



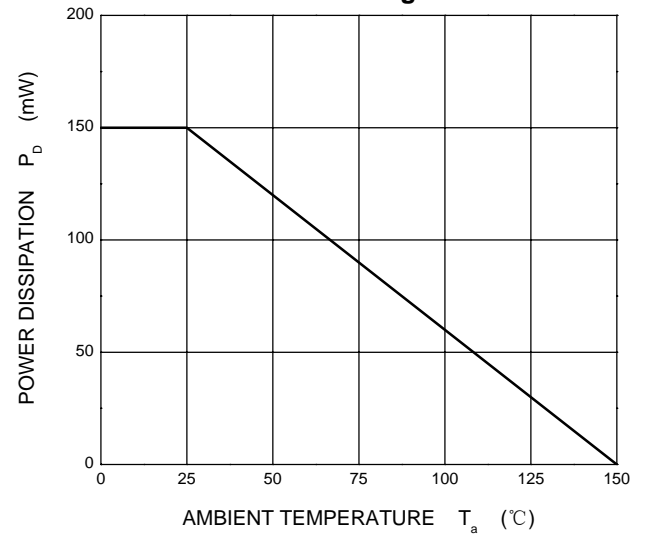
Reverse Characteristics



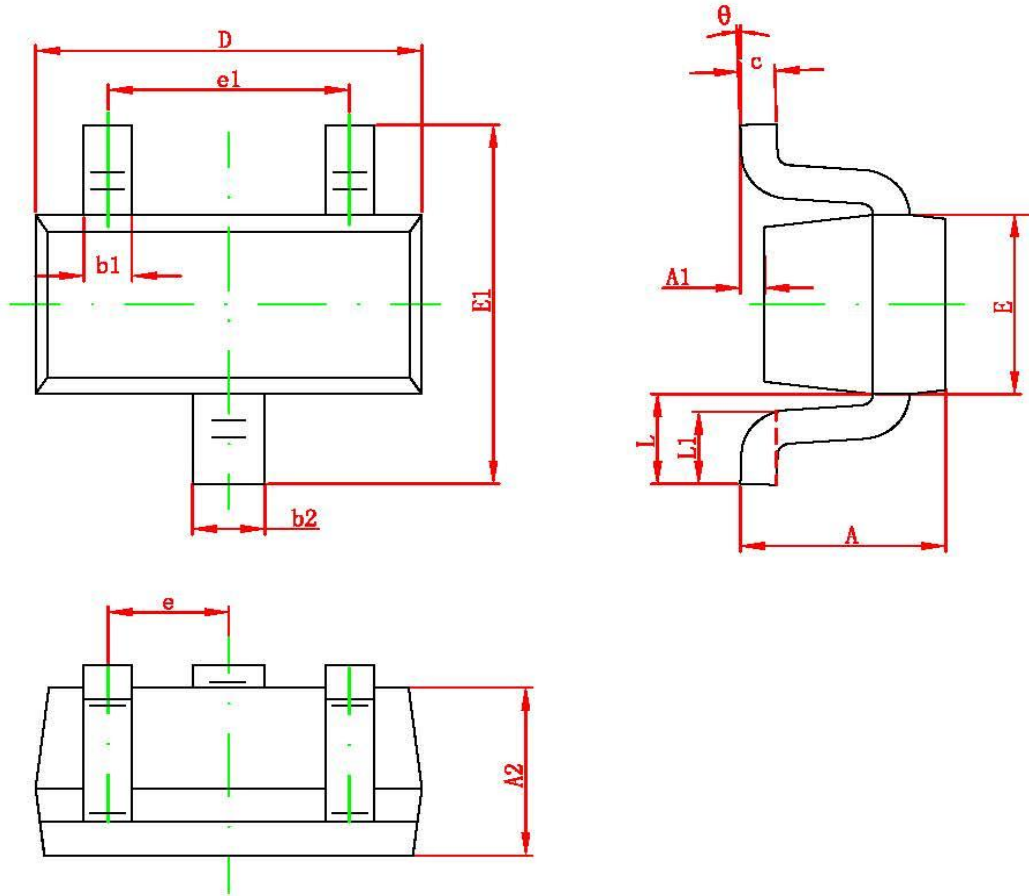
Capacitance Characteristics



Power Derating Curve



SOT-523 PACKAGE OUTLINE DIMENSIONS



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|----------|---------------------------|-------|----------------------|-------|
| | Min. | Max. | Min. | Max. |
| A | 0.700 | 0.900 | 0.028 | 0.035 |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 |
| A2 | 0.700 | 0.800 | 0.028 | 0.031 |
| b1 | 0.150 | 0.250 | 0.006 | 0.010 |
| b2 | 0.250 | 0.350 | 0.010 | 0.014 |
| c | 0.100 | 0.200 | 0.004 | 0.008 |
| D | 1.500 | 1.700 | 0.059 | 0.067 |
| E | 0.700 | 0.900 | 0.028 | 0.035 |
| E1 | 1.450 | 1.750 | 0.057 | 0.069 |
| e | 0.500 TYP. | | 0.020 TYP. | |
| e1 | 0.900 | 1.100 | 0.035 | 0.043 |
| L | 0.400 REF. | | 0.016 REF. | |
| L1 | 0.260 | 0.460 | 0.010 | 0.018 |
| θ | 0° | 8° | 0° | 8° |