



## Features

Fast Switching Speed.

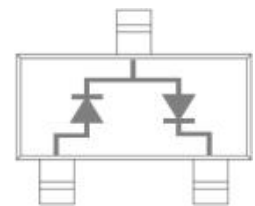
High Conductance.

For General Purpose Switching Applications.

Surface Mount Package Ideally Suited for Automatic Insertion.



SOT-323



## Package Marking and Ordering Information

| Product ID | Pack    | Marking | Qty(PCS) |
|------------|---------|---------|----------|
| BAV99WT1G  | SOT-323 | A7      | 3000     |

## Maxmim Ratings (Ta=25 unless otherwise noted)

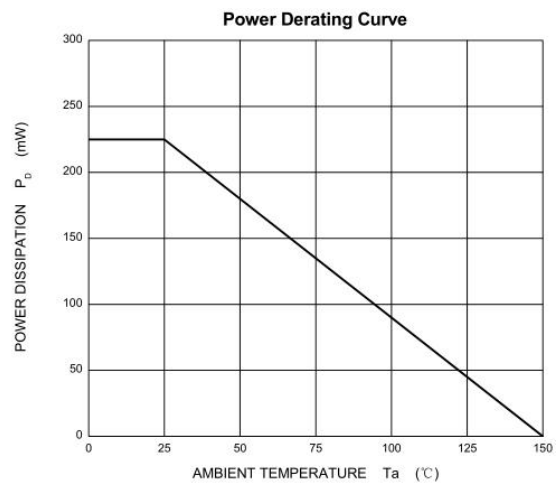
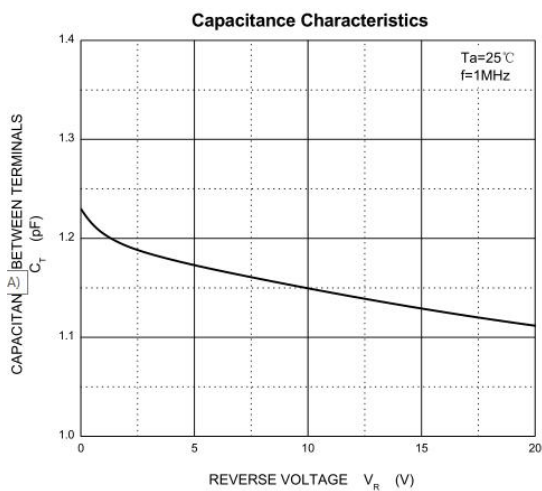
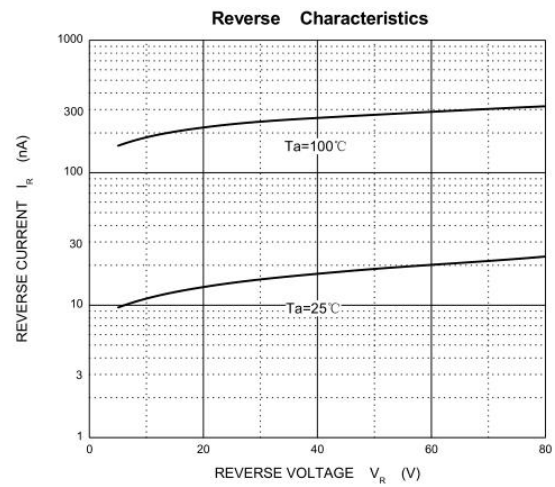
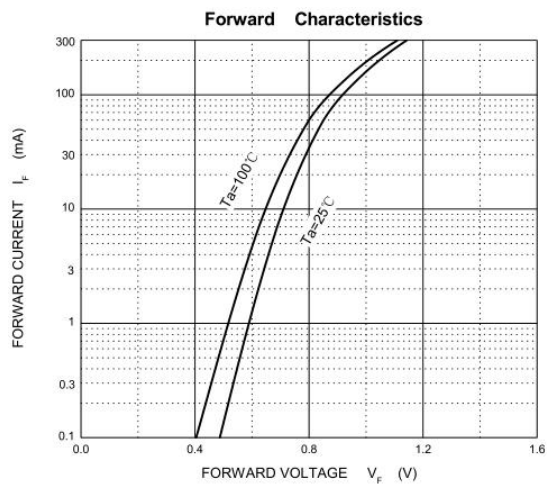
| Symbol          | Parameter                                       | Value    | Unit |
|-----------------|-------------------------------------------------|----------|------|
| $V_R$           | Reverse Voltage                                 | 70       | V    |
| $V_{R(RMS)}$    | RMS Reverse Voltage                             | 71       | V    |
| $I_F$           | Forward Current                                 | 200      | mA   |
| $I_{FSM}$       | Non-repetitive Peak Forward Surge Current@8.3mS | 2.0      | A    |
| $P_d$           | Power Dissipation                               | 225      | mW   |
| $R_{\theta JA}$ | Thermal Resistance From Junction To Ambient     | 550      | °C/W |
| $T_J$           | Operation Junction Temperature Range            | -40~+125 | °C   |
| $T_{STG}$       | Storage Temperature Range                       | -55~+150 | °C   |

## Electrcal Charcteristics (Ta=25 unless otherwise specified)

| Symbol     | Parameter                     | Test conditions                              | Min | Max   | Unit    |
|------------|-------------------------------|----------------------------------------------|-----|-------|---------|
| $V_{(BR)}$ | Reverse breakdown voltage     | $I_R=100\mu A$                               | 70  |       | V       |
| $I_R$      | Reverse current               | $V_R=70V$                                    |     | 2.5   | $\mu A$ |
|            |                               | $V_R=20V$                                    |     | 25    | nA      |
| $V_F$      | Forward voltage               | $I_F=1mA$                                    |     | 0.715 | V       |
|            |                               | $I_F=10mA$                                   |     | 0.855 | V       |
|            |                               | $I_F=50mA$                                   |     | 1     | V       |
|            |                               | $I_F=150mA$                                  |     | 1.25  | V       |
| $C_T$      | Capacitance between terminals | $V_R=0V, f=1MHz$                             |     | 1.5   | pF      |
| $t_{rr}$   | Reverse recovery time         | $I_F=I_R=10mA, I_{rr}=0.1I_R, R_L=100\Omega$ |     | 6     | nS      |

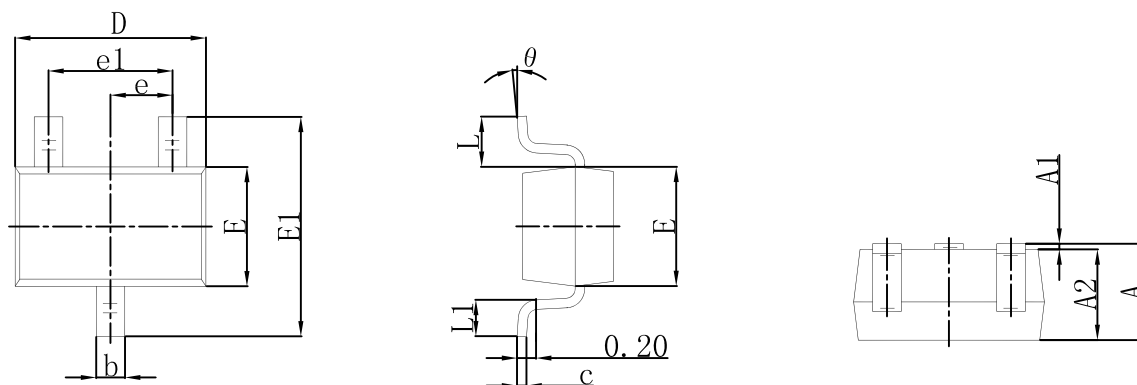


## Typical Characteristics





## SOT-323 Package Outline Dimensions



| Symbol   | Dimensions In Millimeters |       | Dimensions In Inches |       |
|----------|---------------------------|-------|----------------------|-------|
|          | Min                       | Max   | Min                  | Max   |
| A        | 0.900                     | 1.100 | 0.035                | 0.043 |
| A1       | 0.000                     | 0.100 | 0.000                | 0.004 |
| A2       | 0.900                     | 1.000 | 0.035                | 0.039 |
| b        | 0.200                     | 0.400 | 0.008                | 0.016 |
| c        | 0.080                     | 0.150 | 0.003                | 0.006 |
| D        | 2.000                     | 2.200 | 0.079                | 0.087 |
| E        | 1.150                     | 1.350 | 0.045                | 0.053 |
| E1       | 2.150                     | 2.450 | 0.085                | 0.096 |
| e        | 0.650 TYP                 |       | 0.026 TYP            |       |
| e1       | 1.200                     | 1.400 | 0.047                | 0.055 |
| L        | 0.525 REF                 |       | 0.021 REF            |       |
| L1       | 0.260                     | 0.460 | 0.010                | 0.018 |
| $\theta$ | 0°                        | 8°    | 0°                   | 8°    |



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