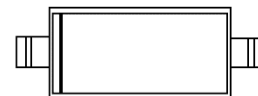


### FEATURES AND BENEFITS

| Product Summary |        |        |
|-----------------|--------|--------|
| $I_F$           | 250mA  | @25 °C |
| $V_F$           | 0.715V | @1mA   |
| $V_{RRM}$       | 100V   | @25 °C |

- For General Purpose Switching Applications
- High Conductance
- RoHS Compliant / Green EMC UL Flammability Classification Rating 94V-0
- Matte Tin (Sn) Lead finish Solderable per MIL-STD-202, Method 208
- Moisture Sensitivity: Level 1 per J-STD-020
- Weight: 0.004 grams (Approximate)

SOD-323

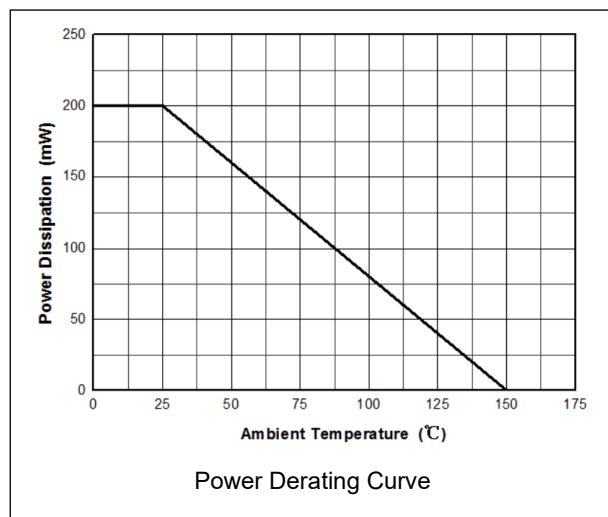
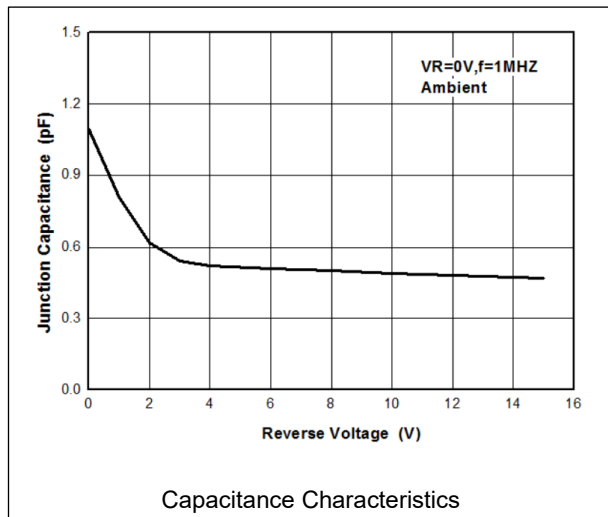
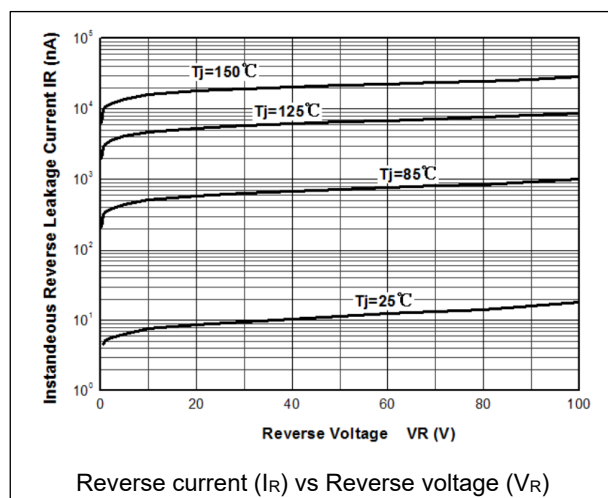
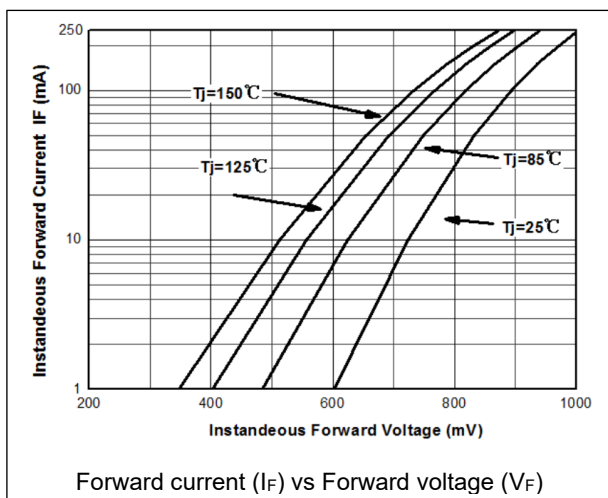


Cathode  Anode

| Maximum Ratings (TA = 25 °C unless otherwise noted) |          |           |             |      |
|-----------------------------------------------------|----------|-----------|-------------|------|
| PARAMETER                                           |          | SYMBOL    | VALUE       | UNIT |
| Repetitive Peak Reverse Voltage                     |          | $V_{RRM}$ | 100         | V    |
| Working Reverse Voltage                             |          | $V_{RWM}$ | 100         | V    |
| Repetitive Peak Forward Current                     |          | $I_{FRM}$ | 300         | mA   |
| Non-Repetitive Peak Forward Surge Current           | @t=1.0us | $I_{FSM}$ | 4.0         | A    |
|                                                     | @t=1ms   |           | 1.0         |      |
|                                                     | @t=1s    |           | 0.5         |      |
| Continuous Forward Current                          |          | $I_F$     | 250         | mA   |
| Power Dissipation                                   |          | $P_{TM}$  | 200         | mW   |
| Junction Temperature                                |          | $T_J$     | 150         | °C   |
| Storage Temperature                                 |          | $T_{STG}$ | -55 to +150 | °C   |

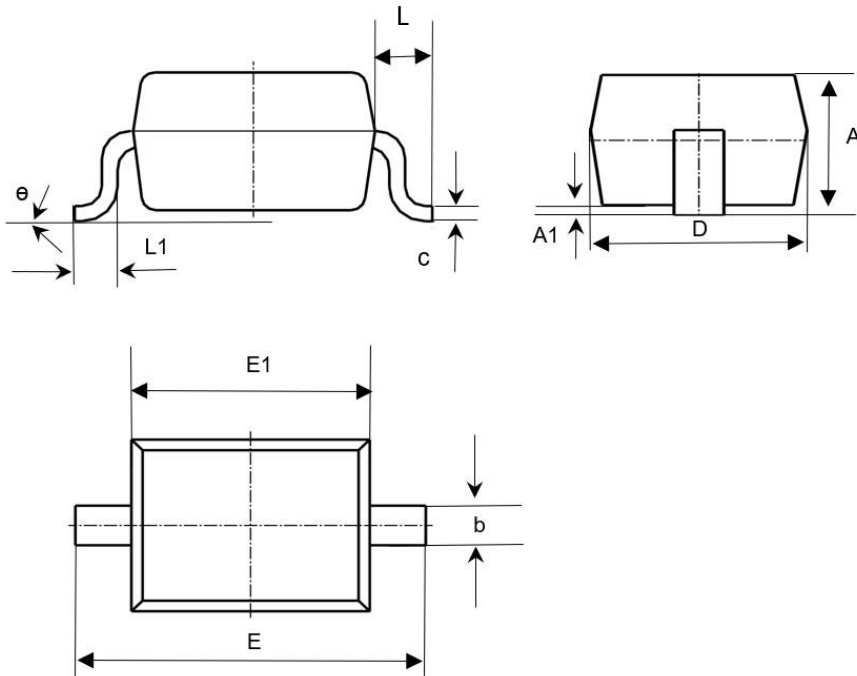
| ELECTRICAL CHARACTERISTICS (TA = 25 °C unless otherwise noted) |                 |                                                                                |     |       |      |
|----------------------------------------------------------------|-----------------|--------------------------------------------------------------------------------|-----|-------|------|
| PARAMETER                                                      | SYMBOL          | CONDITION                                                                      | MIN | MAX   | UNIT |
| Breakdown Voltage                                              | V <sub>BR</sub> | I <sub>R</sub> = 100μA                                                         | 100 |       | V    |
|                                                                |                 | I <sub>R</sub> = 5μA                                                           | 75  |       | V    |
| Forward Voltage                                                | V <sub>F</sub>  | I <sub>F</sub> = 1mA                                                           |     | 0.715 | V    |
|                                                                |                 | I <sub>F</sub> = 10mA                                                          |     | 0.855 |      |
|                                                                |                 | I <sub>F</sub> = 50mA                                                          |     | 1.0   |      |
|                                                                |                 | I <sub>F</sub> = 150mA                                                         |     | 1.25  |      |
| Reverse Current                                                | I <sub>R</sub>  | V <sub>R</sub> = 20V                                                           |     | 30    | nA   |
|                                                                |                 | V <sub>R</sub> = 75V                                                           |     | 1     | μA   |
|                                                                |                 | V <sub>R</sub> = 100V                                                          |     | 5     | μA   |
| Capacitance                                                    | C <sub>T</sub>  | V <sub>R</sub> = 0V, f = 1MHz                                                  |     | 2.0   | pF   |
| Reverse Recovery Time                                          | t <sub>rr</sub> | I <sub>F</sub> = I <sub>R</sub> = 10mA, I <sub>rr</sub> = 0.1 × I <sub>R</sub> |     | 4     | ns   |

### RATING AND CHARACTERISTICS CURVES



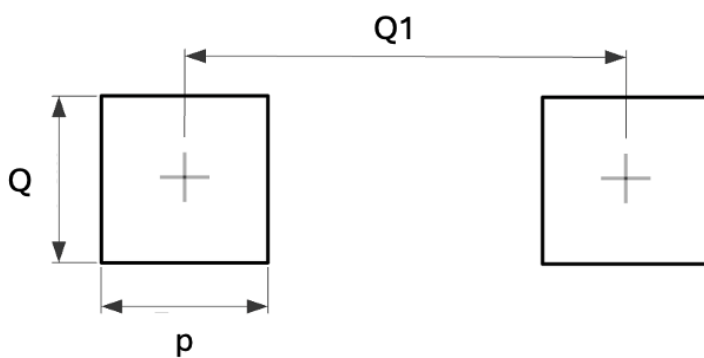
## PACKAGE OUTLINE DIMENSIONS

**SOD-323**



| Symbol   | MIN      | MAX  |
|----------|----------|------|
| A        | -        | 1.00 |
| A1       | 0.00     | 0.10 |
| b        | 0.25     | 0.35 |
| c        | 0.08     | 0.15 |
| D        | 1.20     | 1.40 |
| E        | 2.50     | 2.70 |
| E1       | 1.60     | 1.80 |
| L        | 0.475REF |      |
| L1       | 0.25     | 0.40 |
| $\theta$ | 0°       | 8°   |
| Unit: mm |          |      |

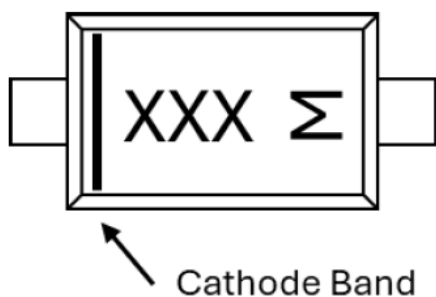
## SUGGESTED PAD LAYOUT



| Symbol   | Typ  |
|----------|------|
| Q1       | 2.15 |
| Q        | 0.7  |
| p        | 0.7  |
| Unit: mm |      |

### DEVICE MARKING CODE AND ORDERING INFORMATION

| DEVICE   | Marking | Quantity    | Packing     |
|----------|---------|-------------|-------------|
| BAS316WS | A6      | 3000/7"Reel | Tape & Reel |



XXX: Product Marking Code

Σ : Date Code (Rotate 90° counterclockwise)

| Odd Year | Even Year |
|----------|-----------|
| 1        | E         |
| 2        | F         |
| 3        | H         |
| 4        | J         |
| 5        | K         |
| 6        | L         |
| 7        | N         |
| 8        | P         |
| 9        | U         |
| T        | X         |
| V        | Y         |
| C        | Z         |

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