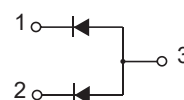


**FEATURES:**

- | Four types of packaging are available
- | High speed
- | Suitable for high packing density layout
- | High reliability

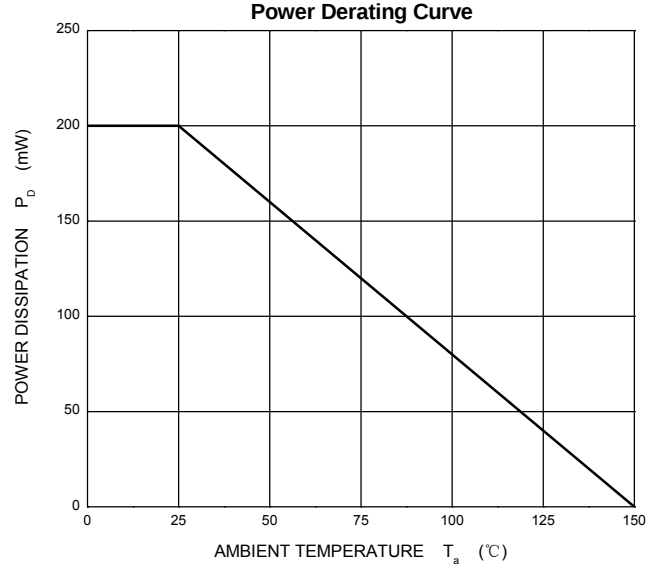
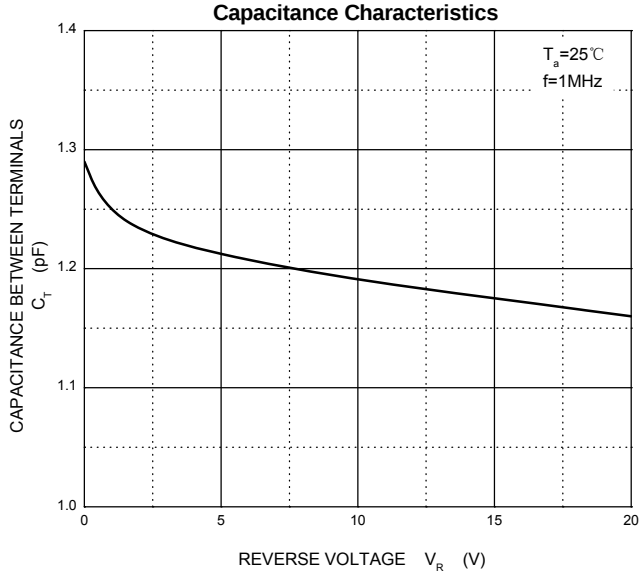
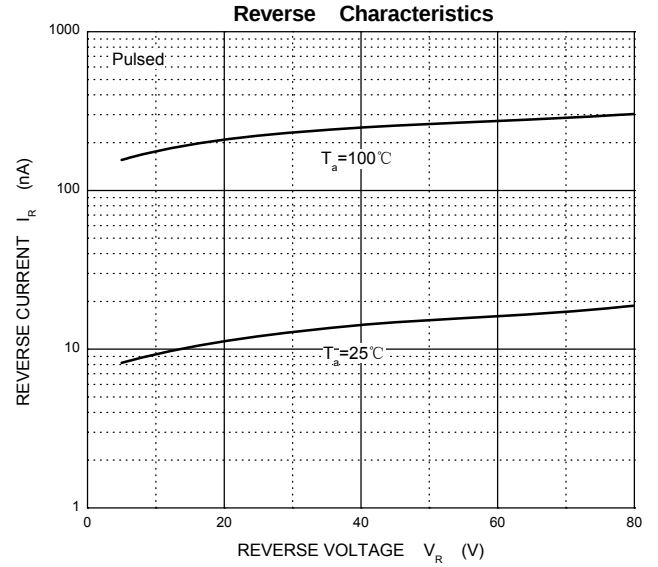
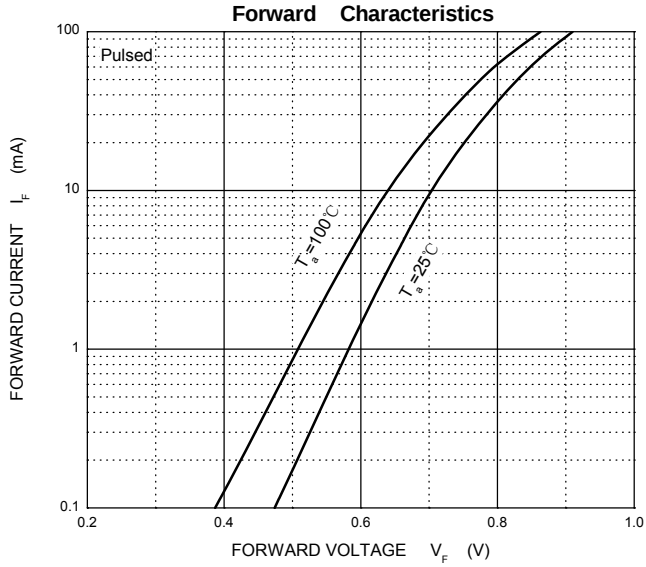
**SOT-323**

**MARKING:P**
**Maximum Ratings @Ta=25°C**

| Parameter                                          | Symbol          | Limit    | Unit |
|----------------------------------------------------|-----------------|----------|------|
| Non-Repetitive Peak Reverse Voltage                | $V_{RM}$        | 80       | V    |
| DC Blocking Voltage                                | $V_R$           | 80       | V    |
| Forward Continuous Current                         | $I_{FM}$        | 300      | mA   |
| Non-Repetitive Peak Forward Surge Current @t=8.3ms | $I_{FSM}$       | 2.0      | A    |
| Average Rectified Output Current                   | $I_O$           | 100      | mA   |
| Power Dissipation                                  | $P_D$           | 200      | mW   |
| Thermal resistance From Junction to ambient        | $R_{\theta JA}$ | 625      | °C/W |
| Operation Junction and Storage Temperature Range   | $T_J, T_{STG}$  | -55~+150 | °C   |

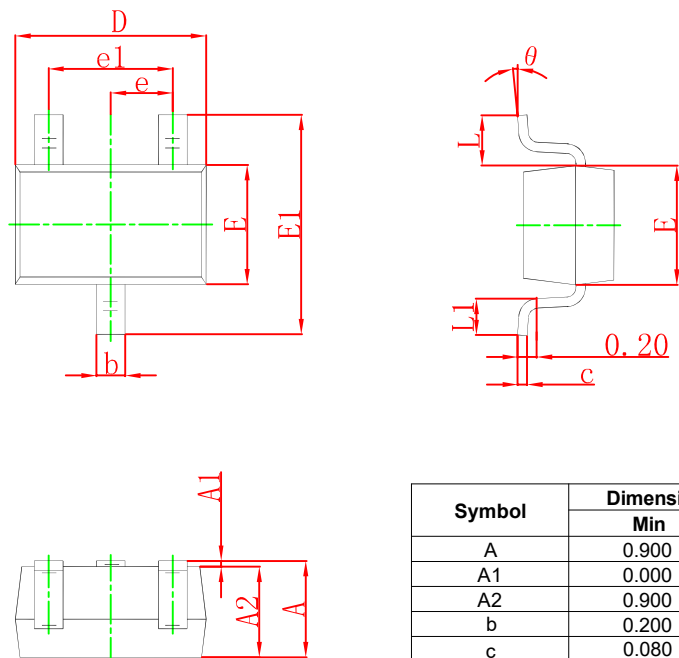
**ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)**

| Parameter                       | Symbol     | Test conditions       | Min | Max | Unit    |
|---------------------------------|------------|-----------------------|-----|-----|---------|
| Reverse breakdown voltage       | $V_{(BR)}$ | $I_R = 100\mu A$      | 80  |     | V       |
| Reverse voltage leakage current | $I_R$      | $V_R = 70V$           |     | 0.1 | $\mu A$ |
| Forward voltage                 | $V_F$      | $I_F = 100mA$         |     | 1.2 | V       |
| Diode capacitance               | $C_D$      | $V_R = 6V, f = 1MHz$  |     | 3.5 | pF      |
| Reverse recovery time           | $t_{rr}$   | $V_R = 6V, I_F = 5mA$ |     | 4   | ns      |

## Typical Characteristics

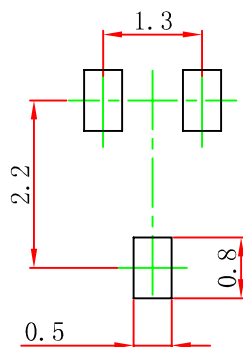


## SOT-323 Package Outline Dimensions



| 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 |
| θ      | 0°                        | 8°    | 0°                   | 8°    |

## SOT-323 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.