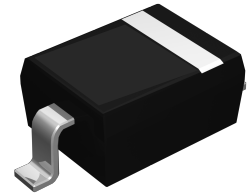


Features

- Low Forward Voltage Drop
- Guard Ring Die Construction for Transient Protection
- Ideal for Low Logic Level Applications
- Low Capacitance



SOD-323



Schematic Diagram

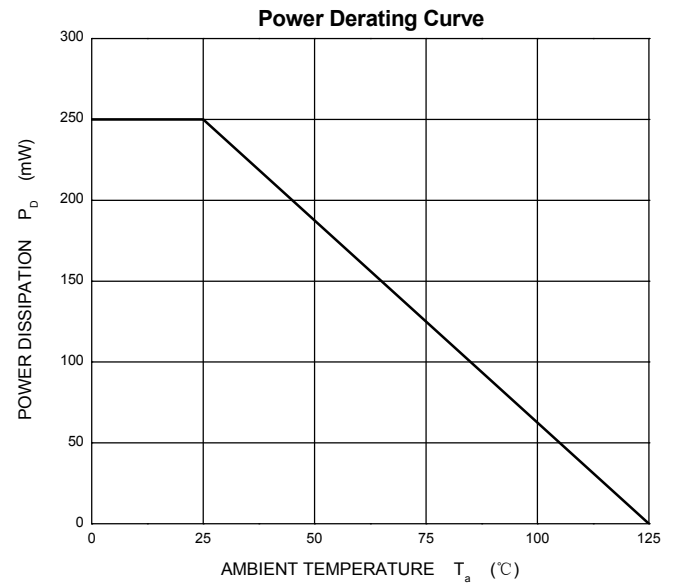
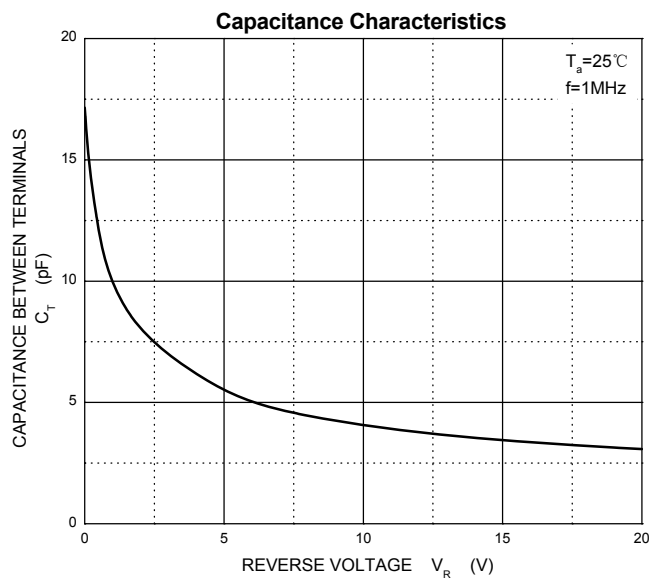
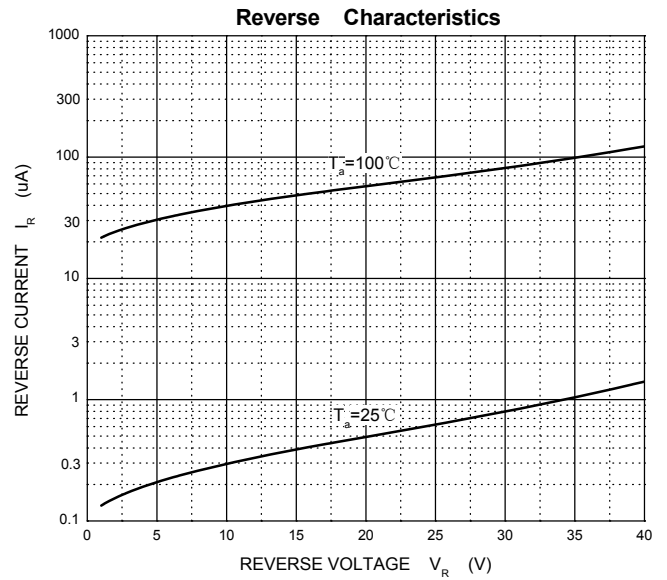
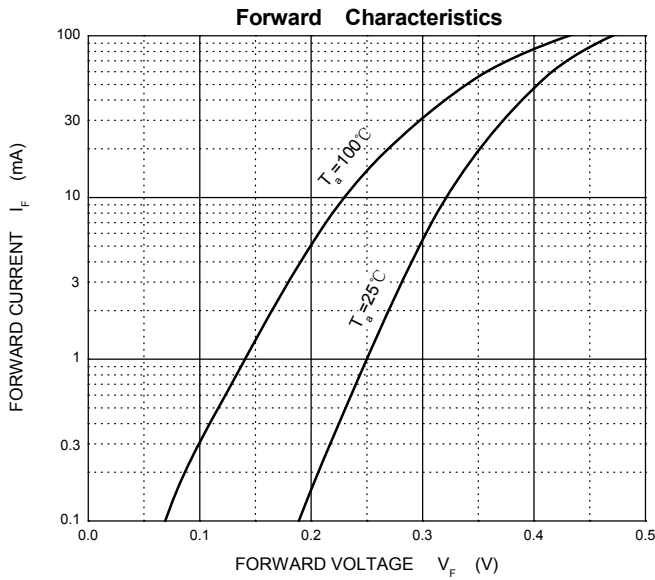
Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

| Parameter | Symbol | Value | Unit |
|---|------------------|-------------|------|
| Peak Repetitive Peak Reverse Voltage | V _{RRM} | 30 | V |
| Working Peak Reverse Voltage | V _{RWM} | | |
| DC Blocking Voltage | V _R | | |
| Forward Continuous Current | I _F | 100 | mA |
| Non-repetitive Peak Forward Surge Current @ t=8.3ms | I _{FSM} | 2 | A |
| Power Dissipation T _C =25°C | P _D | 250 | mW |
| Thermal Resistance from Junction to Ambient | R _{θJA} | 400 | °C/W |
| Junction Temperature | T _J | 125 | °C |
| Storage Temperature | T _{STG} | -55 to +150 | °C |

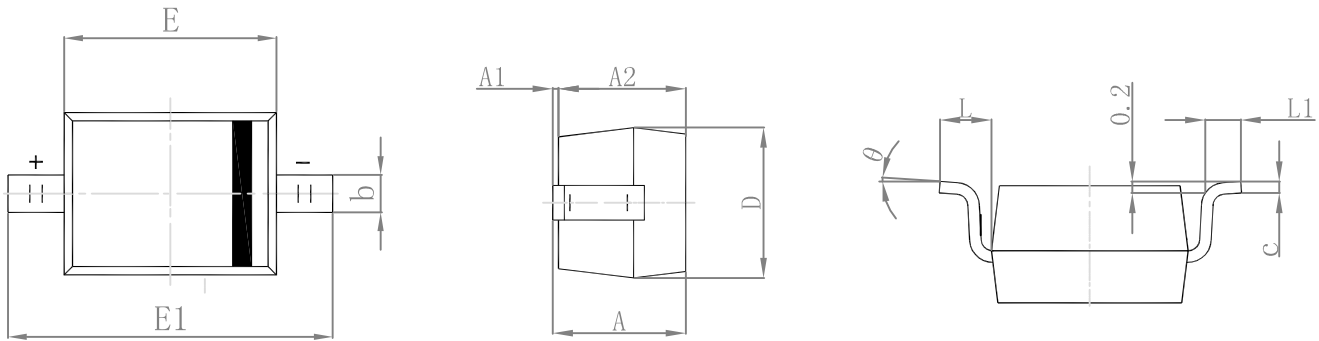
Electrical Characteristics (T_A=25°C unless otherwise noted)

| Parameter | Conditions | Symbol | Min. | Typ. | Max. | Unit |
|-------------------------------|-----------------------------|----------------|------|------|------|------|
| Reverse Breakdown Voltage | I _R =100μA | V _R | 30 | - | - | V |
| Forward Voltage | I _F =2mA | V _F | - | 300 | - | mV |
| | I _F =15mA | | - | 360 | - | |
| | I _F =50mA | | - | 430 | 550 | |
| | I _F =100mA | | - | 500 | 800 | |
| Reverse Current | V _R =25V | I _R | - | - | 1 | μA |
| Capacitance Between Terminals | V _R =10V, f=1MHz | C _T | - | 7 | - | pF |

Typical Characteristics Curves

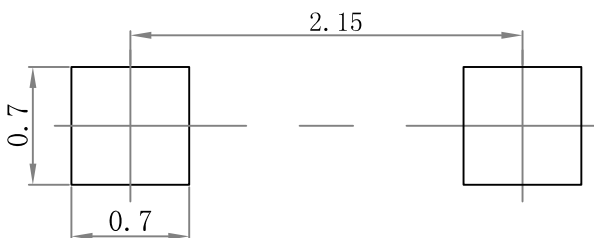


Package Outline Dimensions SOD-323



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|-------|----------------------|-------|
| | Min. | Max. | Min. | Max. |
| A | | 1.000 | | 0.039 |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 |
| A2 | 0.800 | 0.900 | 0.031 | 0.035 |
| b | 0.250 | 0.350 | 0.010 | 0.014 |
| c | 0.080 | 0.150 | 0.003 | 0.006 |
| D | 1.200 | 1.400 | 0.047 | 0.055 |
| E | 1.600 | 1.800 | 0.063 | 0.071 |
| E1 | 2.550 | 2.750 | 0.100 | 0.108 |
| L | 0.475 REF. | | 0.019 REF. | |
| L1 | 0.250 | 0.400 | 0.010 | 0.016 |
| θ | 0° | 8° | 0° | 8° |

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.

Marking and Ordering Information

| Device | Package | Marking | Quantity | HSF Status |
|----------|---------|---------|----------------|----------------|
| SPD107WS | SOD-323 | SG | 3000pcs / Reel | RoHS Compliant |