



Features

- Low Forward Voltage Drop
- Negligible Reverse Recovery Time



SOD-323

Package Marking and Ordering Information

| Product ID | Pack | Marking | Qty(PCS) |
|------------|---------|---------|----------|
| 1N4007WS | SOD-323 | 7A | 3000 |



Maxmim Ratings (Ta=25°C unless otherwise noted)

| Parameter | Symbol | Value | Unit |
|---|-----------------|---------------|--------------------|
| Peak Reverse Voltage | V_{RM} | 1000 | V |
| Reverse Voltage | V_R | 700 | V |
| Average Rectified Forward Current | $I_{F(AV)}$ | 1 | A |
| Surge Forward Current ($t < 1$ s, $T_j = 25^\circ\text{C}$) | I_{FSM} | 15 | A |
| Thermal Resistance from Junction to Ambient Air | $R_{\theta JA}$ | 55 | $^\circ\text{C/W}$ |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | - 65 to + 150 | $^\circ\text{C}$ |

Electrcal Charcteristics (Ta=25°C unless otherwise specified)

| Parameter | Symbol | Min. | Max. | Unit |
|---|----------|--------|------------|--------------------------------|
| Forward Voltage at $I_F = 1$ mA at $I_F = 1$ A | V_F | - - | 0.715 1 | V |
| Maximum DC Reverse Current at $T_a = 25^\circ\text{C}$ Rated DC Blocking Voltage $T_a = 125^\circ\text{C}$ | I_R | - - | 5 50 | μA μA |
| Total Capacitance at $V_R = 0$ V, $f = 1$ MHz | C_J | - | 2 | pF |
| Typical junction capacitance | t_{rr} | - | 1.8 | μS |



Typical Characteristics

Fig.1 Forward Current Derating Curve

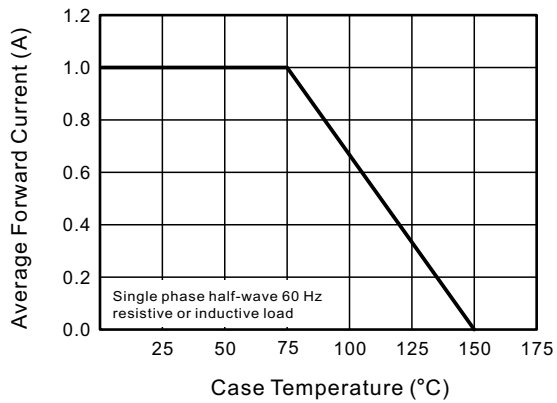


Fig.2 Typical Instantaneous Reverse Characteristics

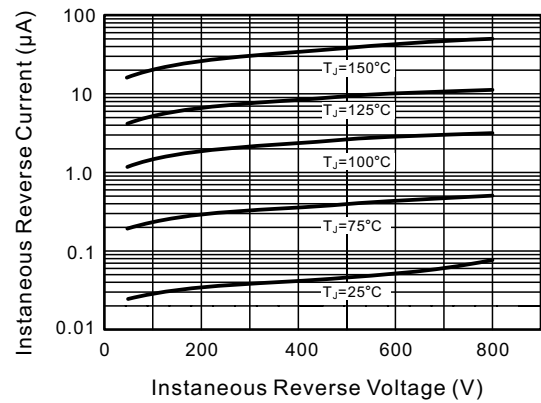


Fig.3 Typical Forward Characteristic

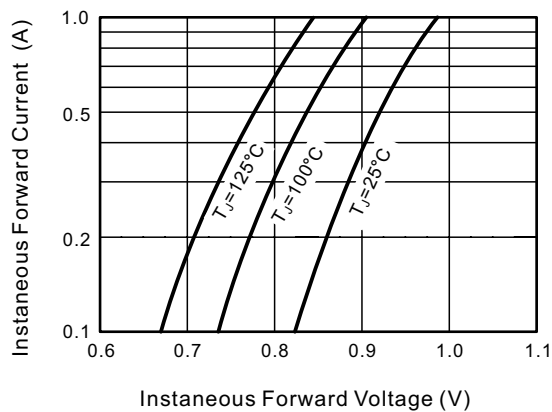


Fig.4 Typical Junction Capacitance

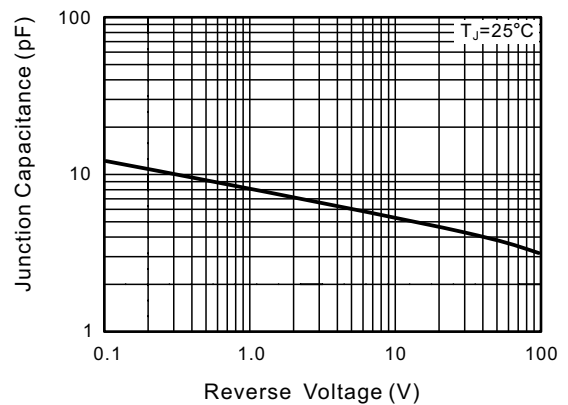
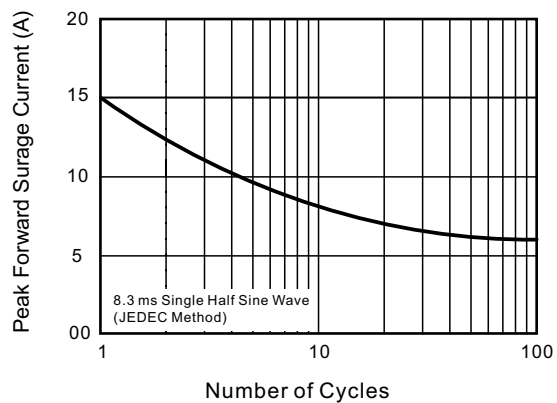
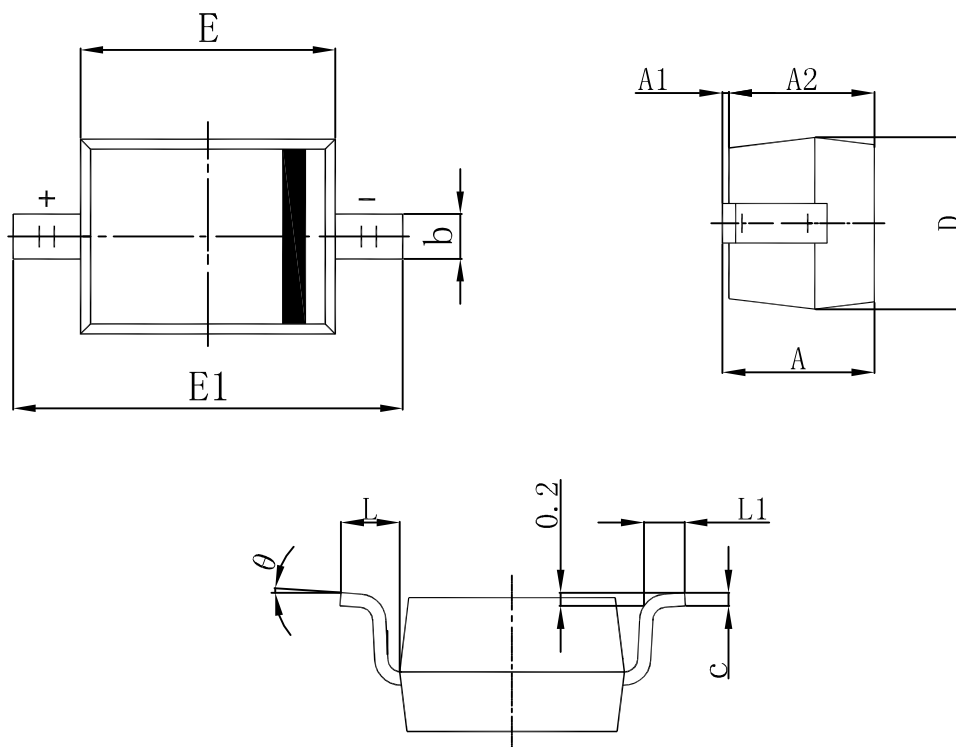


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current





SOD-323 Package Outline Dimensions



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|-------|----------------------|-------|
| | Min | Max | Min | Max |
| A | | 1.100 | | 0.043 |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 |
| A2 | 0.800 | 1.000 | 0.031 | 0.039 |
| 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 | 2.500 | 2.750 | 0.098 | 0.108 |
| L | 0.475 REF | | 0.019 REF | |
| L1 | 0.250 | 0.400 | 0.010 | 0.016 |
| θ | 0° | 8° | 0° | 8° |



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