

SOD-323 Fast Switching Diodes

● Features

- $V_R=100V$
- $I_{F(AV)}=150mA$
- Power Dissipation of 200mW
- Fast switching speed
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

Reverse Voltage
100 V
Forward Current
0.15 Ampere

● Applications

For use in low voltage high frequency circuit signals.

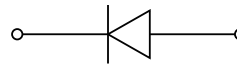
● Mechanical Data

- Case: SOD-323
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Cathode line denotes the cathode end

SOD-323



● Function Diagram



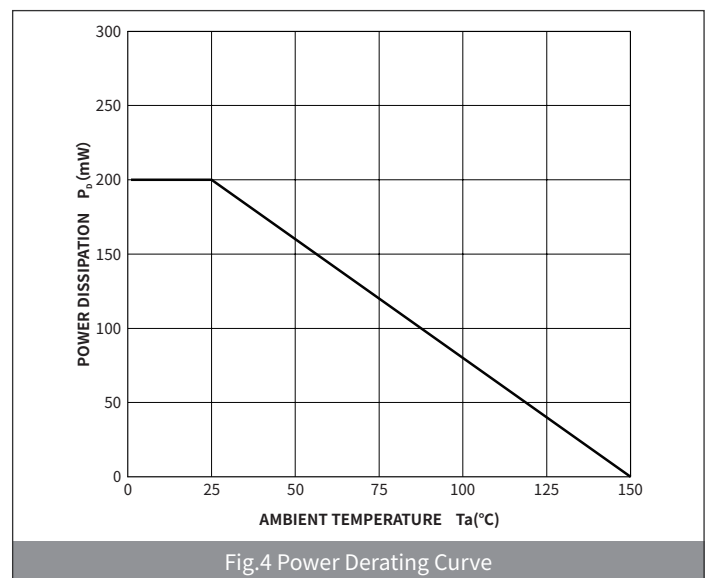
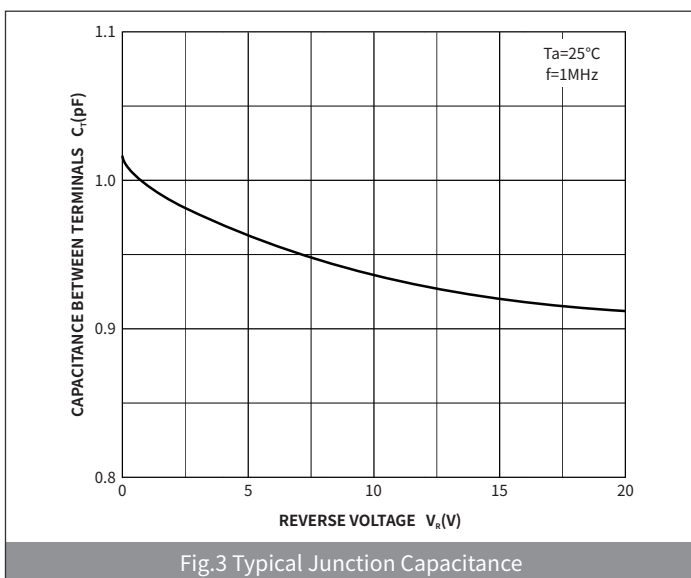
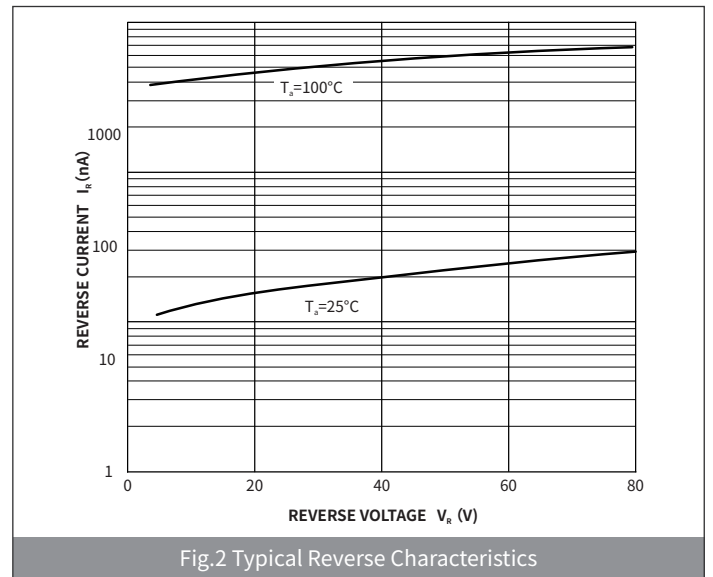
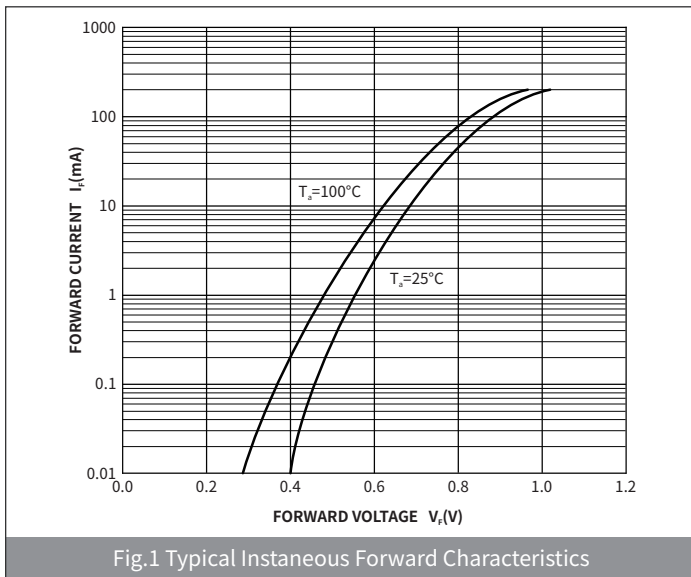
● Maximum Ratings (Ta=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | VALUE |
|--|------------------|-------|-----------|
| Maximum repetitive peak reverse voltage | V_{RRM} | V | 100 |
| Maximum RMS Voltage | V_{RMS} | V | 75 |
| Reverse Breakdown voltage @ $I_r=100\mu A$ | $V_{(BR)R}$ | V | 100 |
| Maximum Average Forward Rectified Current | $I_{F(AV)}$ | mA | 150 |
| Non-Repetitive peak forward current | I_{FM} | mA | 300 |
| Non-Repetitive Peak forward surge current @ $t_p=1.0\mu s$ | I_{FSM} | A | 2.0 |
| Power Dissipation | P_d | mW | 200 |
| Storage temperature | T_{stg} | °C | -55 ~+150 |
| Junction temperature | T_j | °C | -55 ~+150 |
| Typical thermal resistance | $R_{\theta J-A}$ | °C /W | 625 |

● **Electrical Characteristics** (Ta=25°C Unless otherwise noted)

| PARAMETER | TEST CONDITIONS | SYMBOL | UNIT | Min | Type | Max |
|---------------------------------------|--|-----------------|------|-----|------|-------|
| Maximum instantaneous forward voltage | I _F =1.0mA | V _F | V | — | — | 0.715 |
| | I _F =10mA | | | — | — | 0.855 |
| | I _F =50mA | | | — | — | 1.0 |
| | I _F =150mA | | | — | — | 1.25 |
| Reverse Leakage Current | V _R =20V | I _{R1} | nA | — | — | 25 |
| | V _R =75V | I _{R2} | μA | — | — | 1.0 |
| Total capacitance | V _R =0V, f=1MHz | C _T | pF | — | — | 2.0 |
| Maximum reverse recovery time | I _F =I _R =10mA, I _{rr} =0.1×I _R , R _L =100Ω | T _{rr} | ns | — | — | 4.0 |

● **Ratings And Characteristics Curves** (Ta=25°C Unless otherwise specified)



● Ordering Information

| PACKAGE | PACKAGE CODE | UNIT WEIGHT(g) | REEL(pcs) | BOX(pcs) | CARTON(pcs) | DELIVERY MODE |
|---------|--------------|----------------|-----------|----------|-------------|---------------|
| SOD-323 | R1 | 0.0048 | 3000 | 45000 | 180000 | 7" |

● Package Outline Dimensions (SOD-323)

| Symbol | Dimensions | | | |
|----------------|-------------|------|----------|-------|
| | Millimeters | | Inches | |
| | Min. | Max. | Min. | Max. |
| A | 1.60 | 1.80 | 0.063 | 0.071 |
| B | 0.25 | 0.40 | 0.010 | 0.016 |
| C | 2.30 | 2.80 | 0.091 | 0.110 |
| D | 0.80 | 1.10 | 0.031 | 0.043 |
| D ₁ | 0.80 | 0.90 | 0.031 | 0.035 |
| E | 1.20 | 1.40 | 0.047 | 0.055 |
| F | 0.08 | 0.18 | 0.003 | 0.007 |
| L | 0.475REF | | 0.019REF | |
| L ₁ | 0.25 | 0.40 | 0.010 | 0.016 |
| H | - | 0.14 | - | 0.006 |

● Suggested Pad Layout

| Symbol | Dimensions | | | |
|--------|-------------|------|--------|-------|
| | Millimeters | | Inches | |
| | Min. | Max. | Min. | Max. |
| X | 0.65 | 0.75 | 0.026 | 0.030 |
| Y | 0.65 | 0.75 | 0.026 | 0.030 |
| Z | 2.10 | 2.20 | 0.084 | 0.088 |