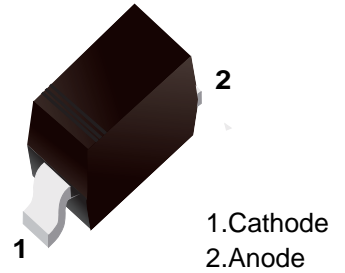


■ Surface Mount Fast Switching Diode



■ Simplified outline(SOD-323)

■ Features

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- High Conductance

■ Absolute Maximum Ratings Ta = 25°C

| Parameter | Symbol | Rating | Unit |
|--|-----------------------------------|-------------|------|
| Non-Repetitive Peak Reverse Voltage | V _{RM} | 100 | V |
| Peak repetitive reverse voltage | V _{R(RM)} | 75 | V |
| Working peak reverse voltage | V _{R(WM)} | | |
| DC blocking voltage | V _R | | |
| RMS reverse voltage | V _{R(RMS)} | 53 | V |
| Average rectified output current | I _O | 150 | mA |
| Forward Continuous Current | I _{FM} | 300 | mA |
| Non-Repetitive Peak Forward Surge Current @ t = 1.0 μs @ t = 1.0s | I _{FSM} | 2.0 | A |
| | | 1.0 | |
| Power dissipation | P _D | 400 | mW |
| Typical Thermal Resistance Junction to Ambient | R _{θJA} | 315 | °C/W |
| Operating and storage temperature range | T _J , T _{stg} | -65 to +150 | °C |

■ Electrical Characteristics Ta = 25°C

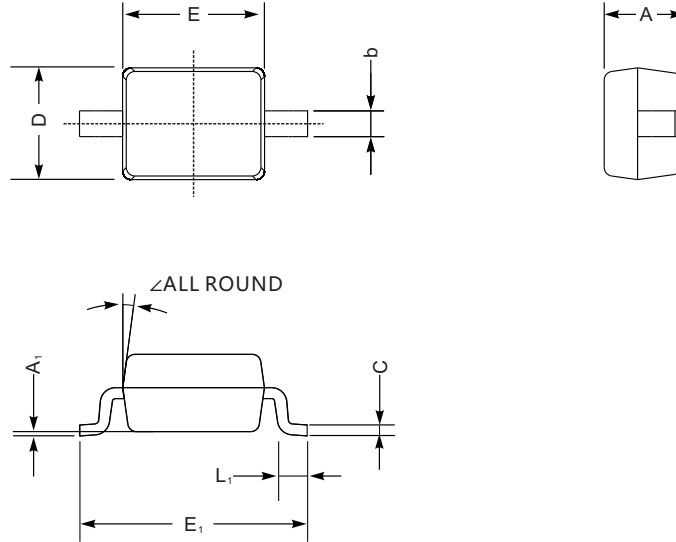
| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|---------------------------|--------------------|---|-----|-----|-------|------|
| Reverse Breakdown Voltage | V _{(BR)R} | I _R = 1.0 μA | 75 | | | V |
| Forward voltage | V _{FM} | I _F = 1.0mA | | | 0.745 | V |
| | | I _F = 10mA | | | 0.855 | |
| | | I _F = 50mA | | | 1.0 | |
| | | I _F = 150mA | | | 1.25 | |
| Peak Reverse current | I _{RM} | V _R = 75V | | | 1.0 | μA |
| | | V _R = 75V, T _J = 150°C | | | 50 | μA |
| | | V _R = 25V, T _J = 150°C | | | 30 | nA |
| | | V _R = 20V | | | 25 | nA |
| Junction Capacitance | C _J | V _R = 0, f = 1.0MHz | | | 2.0 | pF |
| Reverse Recovery Time | t _{rr} | I _F = I _R = 10mA, I _{rr} = 0.1xI _R , R _L = 100 Ω | | | 4.0 | ns |

■ Marking

| | |
|---------|----|
| Marking | T6 |
|---------|----|

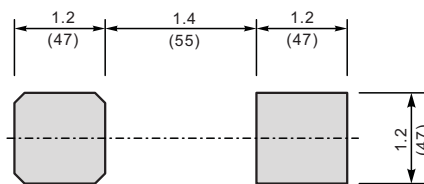
Package Outline SOD-323

Plastic surface mounted package; 2 leads



| UNIT | | A | C | D | E | E ₁ | b | L ₁ | A ₁ | ∠ |
|------|-----|-----|------|-----|-----|----------------|------|----------------|----------------|----|
| mm | max | 1.1 | 0.15 | 1.4 | 1.8 | 2.75 | 0.4 | 0.45 | 0.2 | 9° |
| | min | 0.8 | 0.08 | 1.2 | 1.4 | 2.55 | 0.25 | 0.2 | — | |
| mil | max | 43 | 5.9 | 55 | 70 | 108 | 16 | 16 | 8 | |
| | min | 32 | 3.1 | 47 | 63 | 100 | 9.8 | 7.9 | — | |

The recommended mounting pad size



Unit: $\frac{\text{mm}}{\text{mil}}$

Summary of Packing Options

| Package | Packing Description | Packing Quantity | Industry Standard |
|---------|---------------------|------------------|-------------------|
| SOD-323 | Tape/Reel, 7" reel | 3000 | EIA-481-1 |