

Surface Mount Switching Diode

(Pb) Lead(Pb)-Free

Features:

- *High Speed $\leq 4\text{ns}$
- *Low Rever Leakage Current
- *Small Outline Surface Mount SOD-323 Package

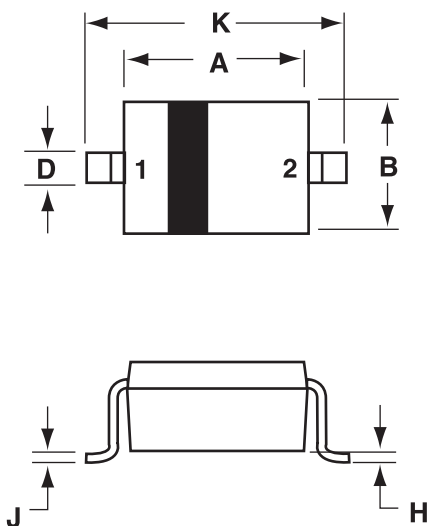
SWITCHING DIODE
100m AMPERES
100VOLTS



SOD-323

SOD -323 Outline Dimensions

Unit:mm



| Dim | MILLMETERS | |
|-----|------------|-------|
| | Min | Max |
| A | 1.60 | 1.80 |
| B | 1.15 | 1.35 |
| C | 0.80 | 1.00 |
| D | 0.25 | 0.40 |
| E | 0.15REF | |
| H | 0.00 | 0.10 |
| J | 0.089 | 0.177 |
| K | 2.30 | 2.70 |

PIN 1.CATHODE
2.ANODE

1SS 355



Maximum Ratings

| Rating | Symbol | Value | Unit |
|----------------------------|------------|-------|------|
| Reverse Voltage | VR | 100 | Vdc |
| Forward Current | IF | 100 | mAdc |
| Peak Forward Surge Current | IFM(Surge) | 500 | mAdc |

Thermal Characteristics

| Characteristics | Symbol | Max | Unit |
|---|----------|--------------|-------------|
| Total Device Dissipation FR-5 Board TA=25°C Derate Above 25°C | PD | 225 1.8 | mW mW/°C |
| Thermal Resistance, Junction to Ambient | RθJA | 556 | °C/W |
| Total Device Dissipation Alumina Substrate,(2)TA=25°C Derate Above 25°C | PD | 300 2.4 | mW mW/°C |
| Thermal Resistance, Junction to Ambient | RθJA | 417 | °C/W |
| Junction and Storage Temperature | TJ, Tstg | -55 to + 150 | °C |

Electrical Characteristics (TA=25°C Unless Otherwise note)

| Characteristics | Symbol | Min | Max | Unit |
|-----------------|--------|-----|-----|------|
|-----------------|--------|-----|-----|------|

Off Characteristics

| | | | | |
|--|-------|-----|------|------|
| Reverse Breakdown Voltage (IR=100μAdc) | V(BR) | 100 | — | Vcc |
| Forward Voltage(IF=100mAdc) | VF | — | 1200 | mVdc |
| Reverse Voltage Leakage Current (VR=80Vdc) | IR | — | 0.1 | μAdc |
| Diode Capacitance (VR=0.5V, f=1.0MHz) | CT | — | 3.5 | pF |
| Reverse Recover Time (IF=IR=10mAdc) | trr | — | 4.0 | ns |

1. FR-5=1.0x0.75x0.062 in 2. Alumina=0.4x0.3x0.024 in. 99.5% alumina.

Device Marking

| Item | Marking | Equivalent Circuitdiagram |
|---------|-----------|---------------------------|
| 1SS 355 | 5D | |

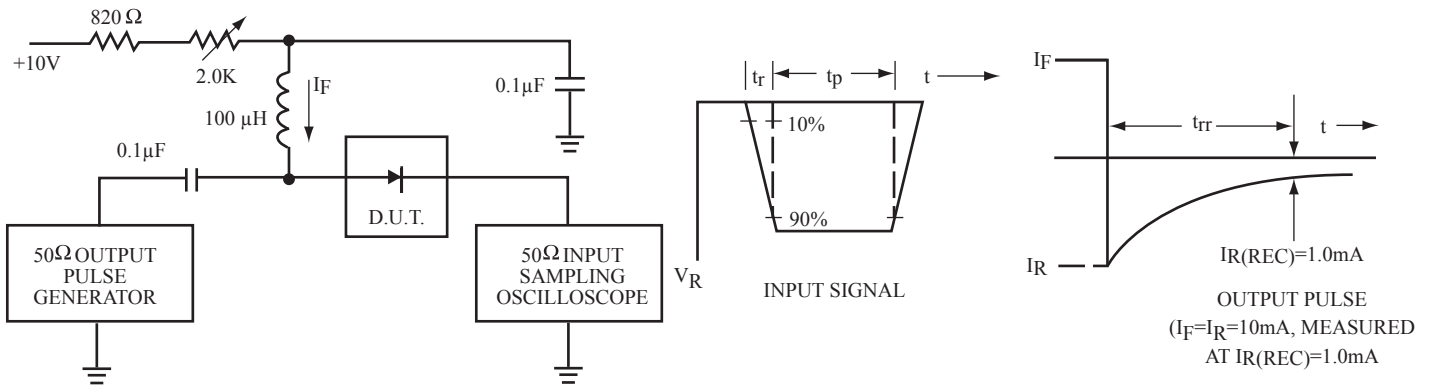


Figure 1. Recovery Time Equivalent Test Circuit

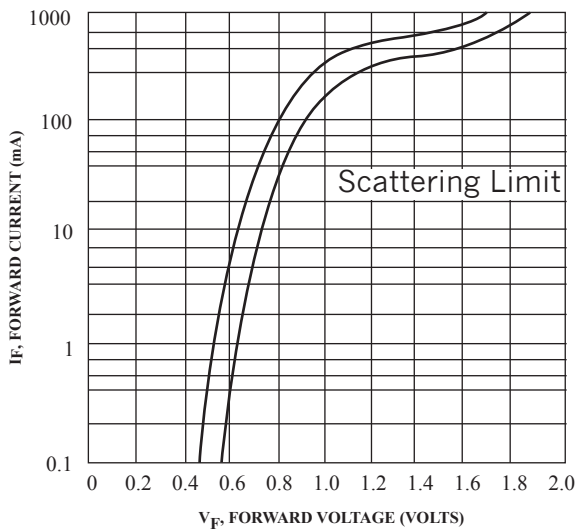


Figure 2. Forward Voltage

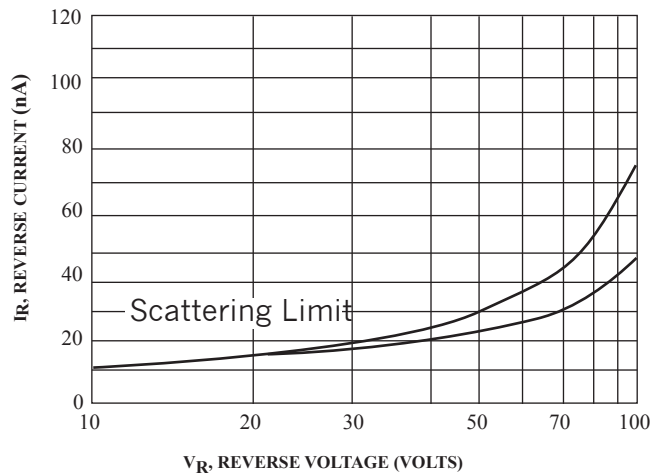


Figure 3. Leakage Current

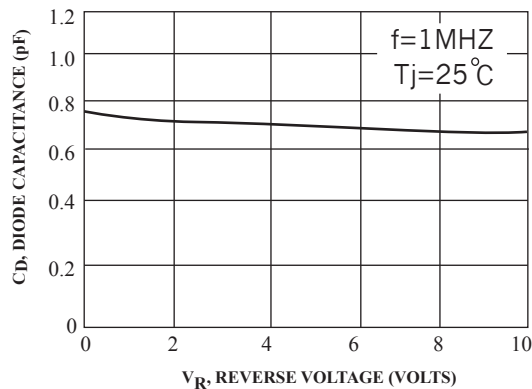


Figure 4. Capacitance

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