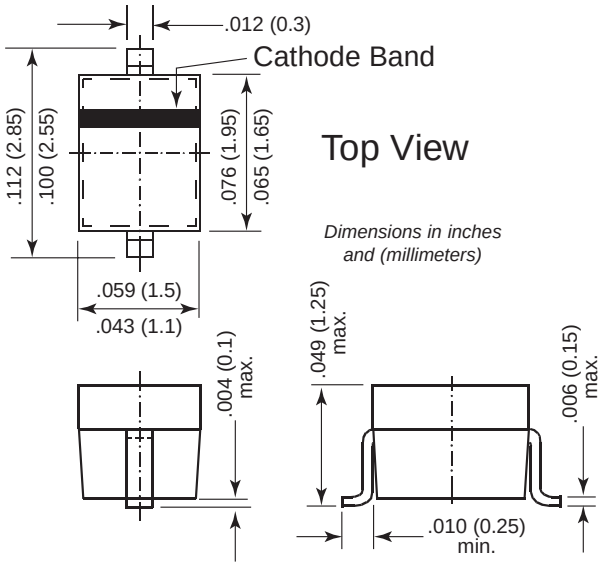
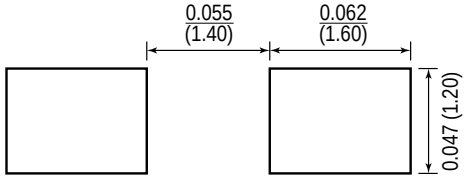
# Schottky Diode

**SOD-323**




**Mounting Pad Layout**




## Mechanical Data

**Case:** SOD-323 Plastic Package

**Weight:** approx. 0.004g

**Marking Code:** 73

**Packaging Codes/Options:**

D5/10K per 13” reel (8mm tape), 30K/box

D6/3K per 7” reel (8mm tape), 30K/box

## Features

- Schottky diode for high-speed switching
- Circuit protection
- Voltage clamping
- High-level detecting and mixing

## Maximum Ratings and Thermal Characteristics ($T_C$ = 25°C unless otherwise noted)

| Parameter | Symbol | Value | Unit |
|---|---|---|---|
| Repetitive Peak Reverse Voltage | $V_{RRM}$ | 70 | V |
| Forward Continuous Current at $T_{amb}$ = 25°C | $I_F$ | 70 | mA |
| Surge Forward Current at $t_p$ < 1s, $T_{amb}$ = 25°C | $I_{FSM}$ | 600 | mA |
| Power Dissipation(1) at $T_{amb}$ = 25°C | $P_{tot}$ | 200 | mW |
| Thermal Resistance Junction to Ambient Air(1) | $R_{\theta JA}$ | 650 | °C/W |
| Junction Temperature | $T_j$ | 150 | °C |
| Operating Temperature Range | $T_{op}$ | –55 to +125 | °C |
| Storage Temperature Range | $T_S$ | –55 to +150 | °C |

**Note:** (1) Valid provided that electrodes are kept at ambient temperature

## Electrical Characteristics ($T_C$ = 25°C unless otherwise noted)

| Parameter | Symbol | Test Condition | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Reverse Breakdown Voltage | $V_{(BR)R}$ | $I_R$ = 10µA (pulsed) | 70 | — | — | V |
| Leakage Current | $I_R$ | $V_R$ = 50V<br>$V_R$ = 70V | —<br>— | —<br>— | 0.1<br>10 | µA |
| Forward Voltage | $V_F$ | $I_F$ = 1mA<br>$I_F$ = 10mA<br>$I_F$ = 15mA(1) | —<br>—<br>— | 375<br>705<br>880 | 410<br>750<br>1000 | mV |
| Capacitance | $C_{tot}$ | $V_R$ = 0V<br>f = 1MHz | — | 1.5 | 2 | pF |
| Charge Carrier Lifetime | $\tau$ | $I_F$ = 25mA | — | 100 | — | ps |
| Differential Forward Resistance | $R_F$ | $I_E$ = 5mA, f = 10KHz | — | 34 | — | Ω |

**Note:**
(1) Pulse test; $t_p \leq 300\mu s$

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