

Schottky Diode

SOT-23



RoHS
Compliant



Features:

- These diodes feature very low turn-on voltage and fast switching
- These devices are protected by a PN junction guard ring against excessive voltage, such as electrostatic dis-charges

Mechanical Data

Case : SOT-23 plastic package
Weight : Approximately 0.008g

Maximum Ratings and Electrical Characteristics for One Diode

Ratings at 25°C Ambient Temperature Unless Otherwise Specified.

Type Number	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V _{RRM}	70	V
Forward Continuous Current at T _a = 25°C	I _F	200 ¹	mA
Surge Forward Current at t _p < 1s, T _a = 25°C	I _{FSM}	600 ¹	
Power Dissipation ¹) at T _{amb} = 25°C	P _{tot}	200 ¹	mW
Junction Temperature	T _j	200	°C
Storage Temperature Range	T _s	-55 to +150	
¹ Device on fiberglass substrate, see layout			

¹ Device on fiberglass substrate, see layout

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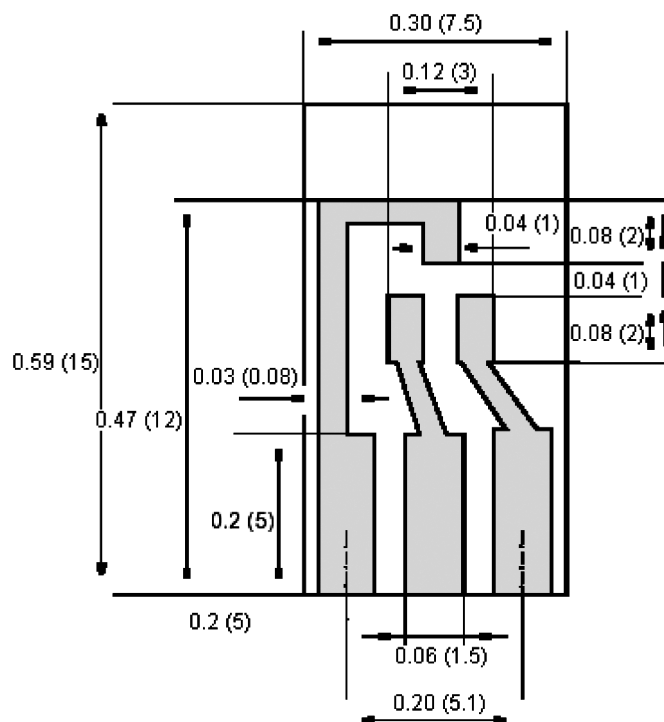


Electrical Characteristics

Ratings for one diode at 25°C Ambient Temperature Unless Otherwise Specified.

Type Number	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage Tested with 10µA Pulses	$V_{(BR)R}$	70	-	-	V
Leakage Current Pulse Test $t_p < 300\mu s$ at $V_R = 50V$	I_R	-	20	100	nA
Forward Voltage Pulse Test $t_p < 300\mu s$ at $I_F = 1mA$ at $I_F = 15mA$	V_F V_F	- -	- -	410 1000	mV mV
Capacitance at $V_R = 0V$, $f = 1MHz$	C_{tot}	-	1.5	2	pF
Reverse Recovery Time from $I_F = 10mA$ through $I_R = 10mA$ to $I_R = 1mA$	t_{rr}	-	-	5	ns
Thermal Resistance Junction to Ambient Air	R_{thJA}	-	-	430 ¹⁾	K/W

¹⁾ Device on fiberglass substrate, see layout



Layout for R_{thJA} test

Thickness : Fiberglass 0.059 in (1.5mm)
Copper leads 0.012 in (0.3mm)

Figure 10 shows three views of the test specimen with the following dimensions:

- Top View:**
 - Overall width: 0.122 (3.1)
 - Slot width: 0.118 (3.0)
 - Slot depth: 0.016 (0.4)
 - Slot position (from center): 0.037 (0.95)
 - Slot width (from center): 0.037 (0.95)
 - Slot depth (from center): 0.056 (1.43)
 - Slot width (from center): 0.052 (1.33)
- Front View:**
 - Overall height: 0.004 (0.1)
 - Slot width: 0.016 (0.4)
 - Slot depth: 0.016 (0.4)
 - Slot position (from center): 0.016 (0.4)
 - Slot width (from center): 0.016 (0.4)
 - Slot depth (from center): 0.016 (0.4)
- Side View:**
 - Overall width: 0.102 (2.6)
 - Slot width: 0.094 (2.4)
 - Slot depth: 0.007 (0.175)
 - Slot position (from center): 0.005 (0.125)
 - Slot width (from center): 0.045 (1.15)
 - Slot depth (from center): 0.037 (0.95)

