

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 $T_a = 25^\circ\text{C}$	I_F	200 ¹	mA
Surge Forward Current at $t_p < 1\text{s}$, $T_a = 25^\circ\text{C}$	I_{FSM}	600 ¹	
Power Dissipation ¹ at $T_{amb} = 25^\circ\text{C}$	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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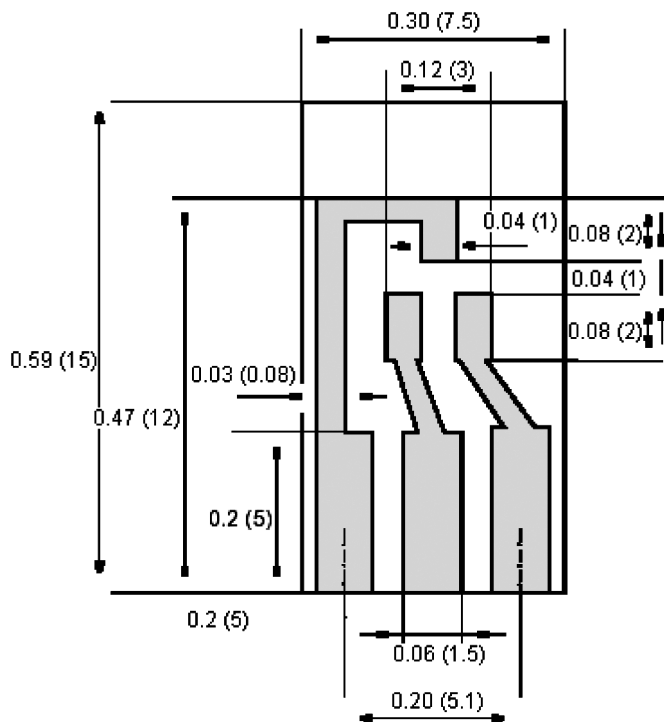


Electrical Characteristics

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

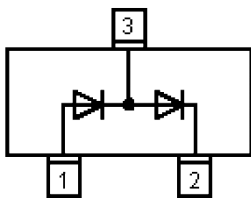
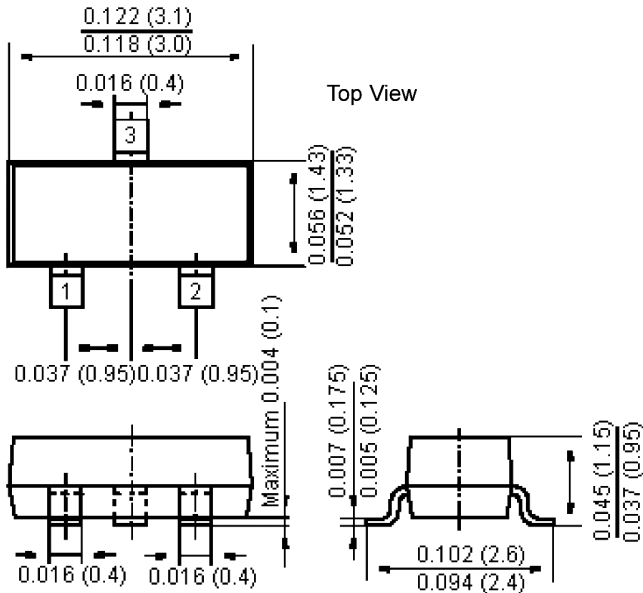
Thickness : Fiberglass 0.059 in (1.5mm)
Copper leads 0.012 in (0.3mm)



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SOT-23



BAS70-04
Marking: 74

Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Diode, Schottky, SOT-23	BAS70-04

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