



# BAS70 / -04 / -05 / -06

## Surface Mount Schottky Barrier Diode



Voltage Range  
70 Volts  
200m Watts Power Dissipation

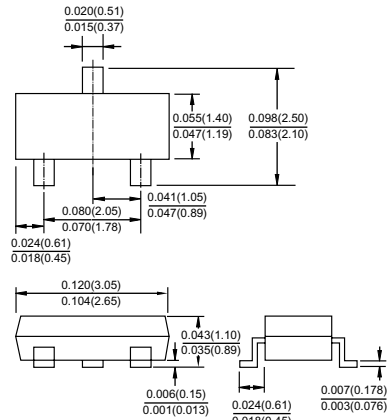
### Features

- ✧ Low turn-on voltage
- ✧ Fast switching
- ✧ PN junction guard Ring for transient and ESD protection

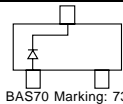
### Mechanical Data

- ✧ Case: SOT-23, Molded plastic
- ✧ Terminals: Solderable per MIL-STD-202, Method 208
- ✧ Marking & Polarity: See diagram
- ✧ Weight: 0.008 grams

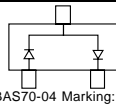
### SOT-23



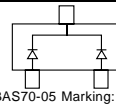
Dimensions in inches and (millimeters)



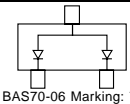
BAS70 Marking: 73



BAS70-04 Marking: 74



BAS70-05 Marking: 75



BAS70-06 Marking: 76

### Maximum Ratings $T_A=25^\circ\text{C}$ unless otherwise specified

Type Number	Symbol	BAS70	Units
Peak Repetitive Reverse Voltage	VRRM	70	V
Working Peak Reverse Voltage	VRWM		
DC Blocking Voltage	VR		
RMS Reverse Voltage	VR(RMS)	49	V
Forward Continuous Current (Note 1)	IF	70	mA
Non-Repetitive Peak Forward Surge Current @ $t \leq 1.0\text{s}$	IFSM	100	mA
Power Dissipation (Note 1)	Pd	200	mW
Thermal Resistance Junction to Ambient Air (Note 1)	$R_{\theta JA}$	625	K/W
Operating Junction Temperature Range	$T_J$	-55 to + 125	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65 to + 150	$^\circ\text{C}$

### Electrical Characteristics

Type Number	Symbol	Min	Max	Units
Reverse Breakdown Voltage (Note 2), $I_R=10\mu\text{A}$	V(BR)	70		
Reverse Leakage Current $t_p < 300\mu\text{s}$ , $V_R=50\text{V}$	$I_R$	--	100	nA
Forward Voltage Drop $t_p < 300\mu\text{s}$ , $I_F=1.0\text{mA}$ $t_p < 300\mu\text{s}$ , $I_F=15\text{mA}$	$V_F$	--	410 1000	mV
Junction Capacitance $V_R=0$ , $f=1.0\text{MHz}$	$C_j$	--	2.0	pF
Reverse Recovery Time (Note 3)	$t_{rr}$	--	5.0	nS

Notes: 1. Valid Provided that Terminals are Kept at Ambient Temperature.

2. Test Period < 3000uS.

3. Reverse Recovery Test Conditions:  $I_F=I_R=10\text{mA}$ ,  $I_R=1.0\text{mA}$ ,  $R_L=100\Omega$ .