# Surface Mount Barrier Diode



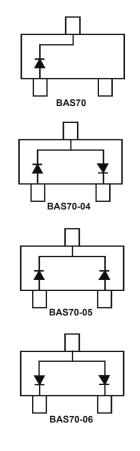


### Features:

- Low turn-on voltage
- Fast switching
- · Ultra-small surface mount package
- · PN Junction guard ring for transient and ESD protection
- · Ultra small surface mount package

## **Applications:**

- · High speed switching applications
- · Circuit protecting
- Voltage clamping



## Maximum Rating @ Ta=25°C (unless otherwise specified):

Characteristic	Symbol	Value	Unit
Peak repetitive reverse voltage Working peak reverse voltage DC reverse voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	70	V
Forward continuous current	I <sub>F</sub>	70	mA
Non-repetitive peak forward surge current @ t <sub>p</sub> =1µs	I <sub>FS</sub>	100	mA
Power dissipation	P <sub>D</sub>	200	mW
Thermal resistance, junction to ambient air	R <sub>thJA</sub>	625	°C/W
Junction temperature	T <sub>J</sub>	150	°C
Storage temperature range	T <sub>STG</sub>	-65 to +150	°C

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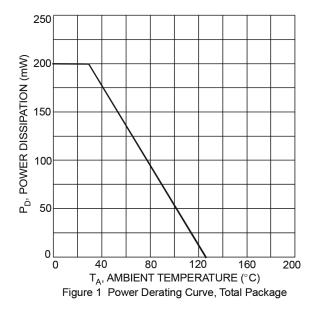
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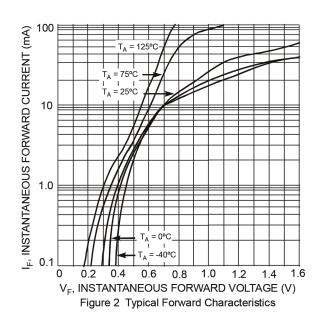


## Electrical Characteristics @ Ta=25°C (unless otherwise specified):

Characteristic	Symbol	Min.	Max.	Unit	Test Condition
Reverse breakdown voltage	V <sub>(BR)R</sub>	70	-	V	I <sub>R</sub> = 10A
Forward voltage	V <sub>F</sub>	-	410 1,000	mV	$t_p$ <300µs, $I_p$ =1mA $t_p$ <300µs, $I_p$ =15mA
Reverse leakage current	I <sub>R</sub>	-	100	nA	t <sub>P</sub> <300μs, V <sub>R</sub> =50V
Junction capacitance	CJ	-	2	pF	V <sub>R</sub> =0V, f=1MHz
Reverse recovery time	t <sub>rr</sub>	-	5	ns	$I_F = I_R = 10 \text{mA}$ $R_L = 100 \Omega$

## Typical Characteristics @ Ta=25°C (unless otherwise specified):

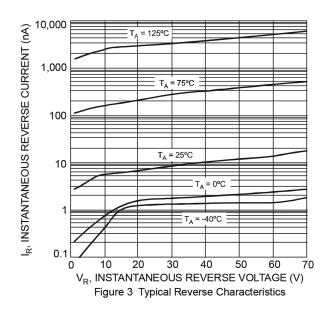




# Surface Mount Barrier Diode Multicomp PRO



## Typical Characteristics @ Ta=25°C (unless otherwise specified):



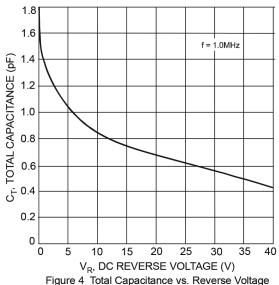
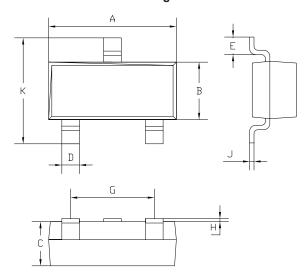


Figure 4 Total Capacitance vs. Reverse Voltage

## **Package Outline**

### **Plastic Surface Mounted Package**



SOT-23				
Dim	Min	Max		
А	2.85	2.95		
В	1.25	1.35		
С	1 Typical			
D	0.37	0.43		
E	0.35	0.48		
G	1.85	1.95		
Н	0.02	0.1		
J	0.1 Typical			
K	2.35	2.45		

Dimensions: Millimetres

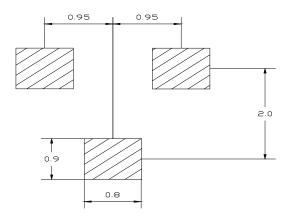
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# Surface Mount Barrier Diode



### Soldering Footprint



Dimensions: Millimetres

### **Part Number Table**

Description	Part Number	
Diode, Schottky, 70V, SOT23	BAS70	
	BAS70-04	
Diode, Dual Schottky, 70V, SOT23	BAS70-05	
	BAS70-06	

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