

DEC

BAS70

Surface Mount Schottky
Barrier Diode

Features

Low Turn-on Voltage

Low Forward Voltage-0.75V(Max) @ $I_F = 10 \text{ mA}$

Very Low Capacitance - Less Than 2.0pF @ 0V

For high speed switching application, circuit protection

Mechanical Data

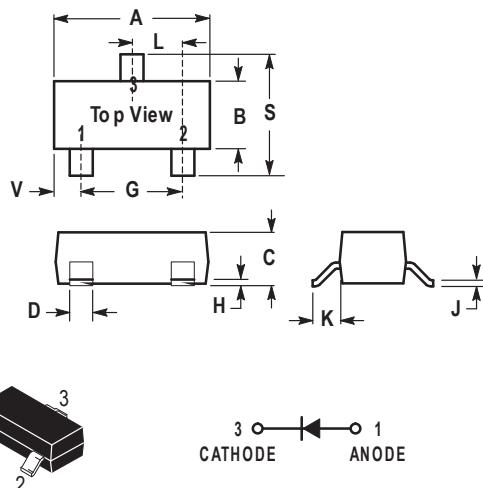
Case: Molded Plastic

Terminals: Solderable per MIL-STD-202,
Method 208

Polarity: See Diagrams Below

Weight: 0.008 grams (approx.)

Mounting Position: Any



SOT-23		
Dim	Min	Max
A	2.800	3.040
B	1.200	1.400
C	0.890	1.110
D	0.370	0.500
G	1.780	2.040
H	0.013	0.100
J	0.085	0.177
K	0.450	0.600
L	0.890	1.020
S	2.100	2.500
V	0.450	0.600

All Dimension in mm

Maximum Rating S ($T_J = 150^\circ\text{C}$ unless otherwise noted)

Rating	Symbol	Value	Unit
Reverse Voltage	V_R	70	Volts
Forward Power Dissipation @ $T_A = 25^\circ\text{C}$ Derate above 25°C	P_F	225 1.8	mW mW/ $^\circ\text{C}$
Operating Junction and Storage Temperature Range	T_J, T_{stg}	-55 to +150	$^\circ\text{C}$
DEVICE MARKING			
BAS70 = BE			

ELECTRICAL CHARACTERISTICS (TA = 25°C unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
Reverse Breakdown Voltage ($I_R = 10 \text{ mA}$)	$V_{(BR)R}$	70	—	Volts
Total Capacitance ($V_R = 0 \text{ V}$, f = 1.0 MHz)	C_T	—	2.0	pF
Reverse Leakage ($V_R = 50 \text{ V}$) ($V_R = 70 \text{ V}$)	I_R	—	0.1 10	mA dc
Forward Voltage ($I_F = 1.0 \text{ mA dc}$)	V_F	—	410	mVdc
Forward Voltage ($I_F = 10 \text{ mA dc}$)	V_F	—	750	mVdc
Forward Voltage ($I_F = 15 \text{ mA dc}$)	V_F	—	1.0	Vdc

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RATINGS AND CHARACTERISTIC CURVES BAS70

Figure 1. Typical Forward Voltage

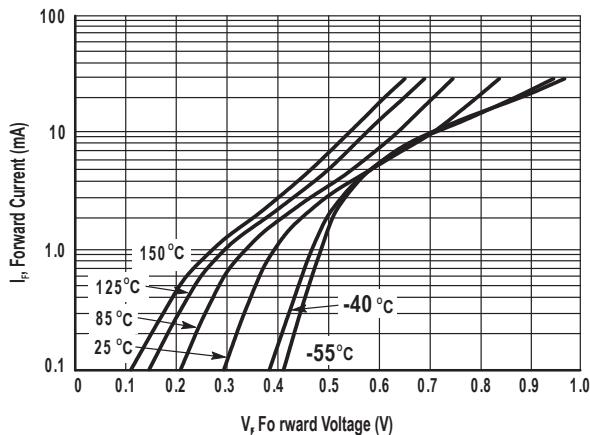


Figure 2. Reverse Current versus Reverse Voltage

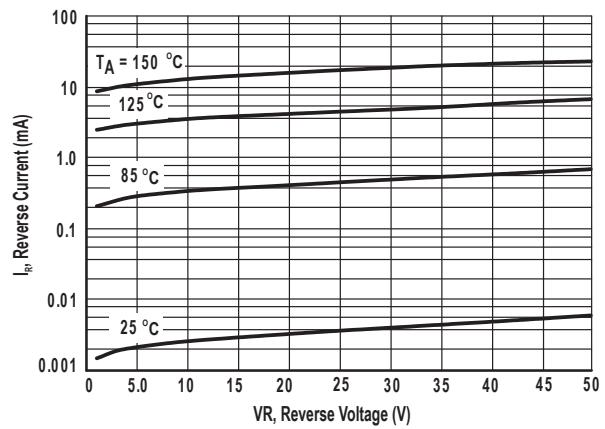


Figure 3. Typical Capacitance

