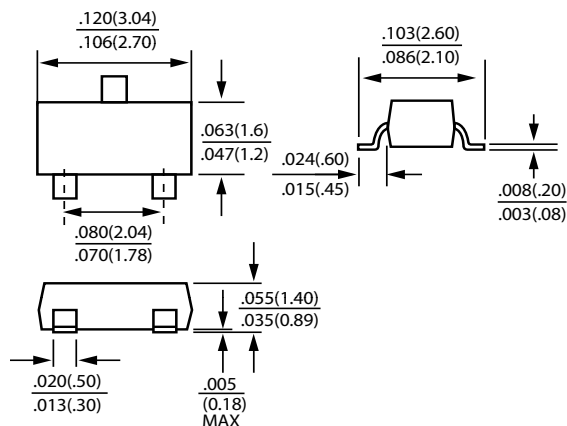
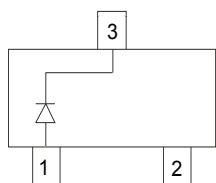


Surface Mount Schottky Barrier Diodes

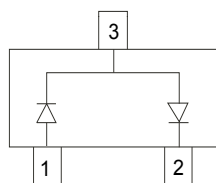


SOT-23

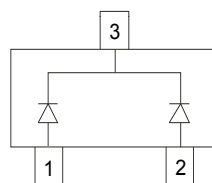
Dimensions in inches and (millimeters)



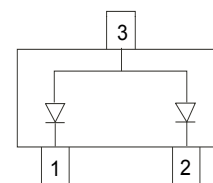
BAS40 Marking: 43



BAS40 S Marking: 44



BAS40 C Marking: 45



BAS40 A Marking: 46

Features

- Low Turn-on Voltage
 - Low Forward Voltage
 - Very Low Capacitance - Less Than 5.0pF @ 0V
- For high speed switching application, circuit protection

Mechanical Data

- Case: SOT-23, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: See Diagrams Below
- Weight: 0.008 grams (approx.)
- Mounting Position: Any

MAXIMUM RATINGS (T_J = 125°C unless otherwise noted)

Rating	Symbol	Value	Unit
Reverse Voltage	V _R	40	V
Thermal Resistance (Note 1) Junction-to-Ambient (Note 2)	R _{θJA}	508 311	°C/W
Forward Power Dissipation @ T _A = 25°C Derate above 25°C	P _F	325 1.8	Mw mW/°C
Operating Junction and Storage Temperature Range	T _J , T _{stg}	-55 ~ 150	°C
Forward Continuous Current	I _{FM}	200	mA
Single Forward Current t ≤ 10 m	I _{FSM}	600	mA

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

Characteristic	Symbol	Min	Max	Unit
Reverse Breakdown Voltage (I _R = 10 uA)	V _{(BR)R}	40	—	V
Total Capacitance (V _R = 0 V, f = 1.0 MHz)	C _T	—	5.0	pF
Reverse Leakage (V _R = 30 V)	I _R	—	200	nA
Forward Voltage (I _F = 1mA)	V _F	—	0.38	V
Forward Voltage (I _F = 10mA)	V _F	—	1	V
Reverse Recovery Time I _{RR} = 1 mA, I _R = I _F = 10mA, R _L = 100Ω	t _{RR}	—	5	nS

Surface Mount Schottky Barrier Diodes

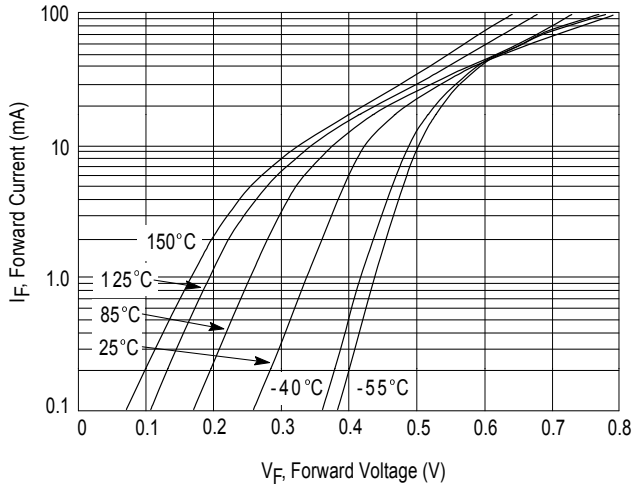


Figure 1. Typical Forward Voltage

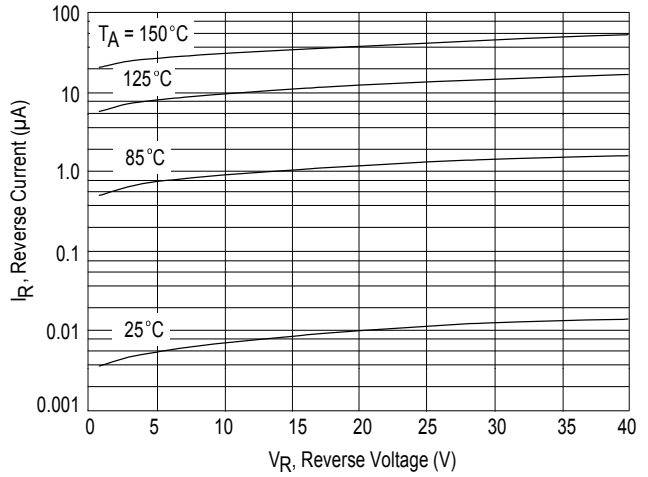


Figure 2. Reverse Current versus Reverse Voltage

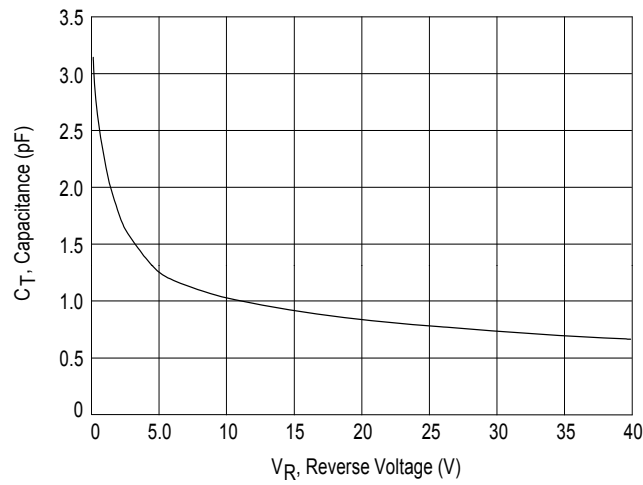


Figure 3. Typical Capacitance