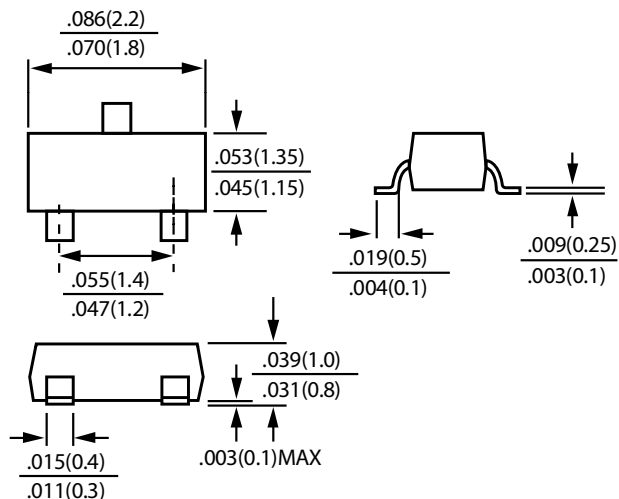
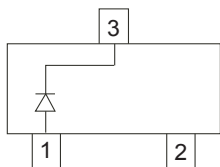


## Surface Mount Schottky Barrier Rectifiers

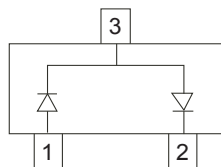


### SOT-323

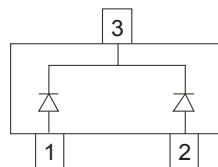
Dimensions in inches and (millimeters)



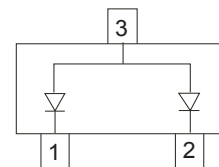
BAS40W Marking: 43



BAS40-04W Marking: 44



BAS40-05W Marking: 45



BAS40-06W 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-323, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: See Diagrams Below
- Weight: 0.006 grams (approx.)
- Mounting Position: Any

### MAXIMUM RATINGS (T<sub>J</sub> = 125°C unless otherwise noted)

Rating	Symbol	Value	Unit
Reverse Voltage	V <sub>R</sub>	40	V
Single Forward Current, t ≤ 10 ms	I <sub>FSM</sub>	600	mA
Forward Power Dissipation @ TA = 25°C Derate above 25°C	P <sub>F</sub>	325 1.8	mW mW / °C
Thermal Resistance (Note 1) Junction to Ambient (Note 2)	R <sub>θJA</sub>	508 311	°C/W
Forward Current (DC)	I <sub>F</sub>	200	mA
Junction, Storage Temperature Range	T <sub>J</sub> , T <sub>stg</sub>	-55 ~ 150	°C

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

Characteristic	Symbol	Min	Typ	Max	Unit
Reverse Breakdown Voltage (I <sub>R</sub> = 10 uA)	V <sub>(BR)R</sub>	40	—	—	Volts
Total Capacitance (V <sub>R</sub> = 1.0 V, f = 1.0 MHz)	C <sub>T</sub>	—	—	5	pF
Reverse Leakage (V <sub>R</sub> = 30 V)	I <sub>R</sub>	—	—	0.2	uAdc
Forward Voltage (I <sub>F</sub> = 1 mAdc)	V <sub>F</sub>	—	—	0.38	Vdc
Forward Voltage (I <sub>F</sub> = 40 mAdc)	V <sub>F</sub>	—	—	1	Vdc
Reverse Recovery Time (I <sub>F</sub> = I <sub>R</sub> = 10 mAdc, I <sub>R(REC)</sub> = 1.0 mAdc R <sub>L</sub> = 100Ω) Figure 1	trr	—	—	5	nS

## Surface Mount Schottky Barrier Rectifiers

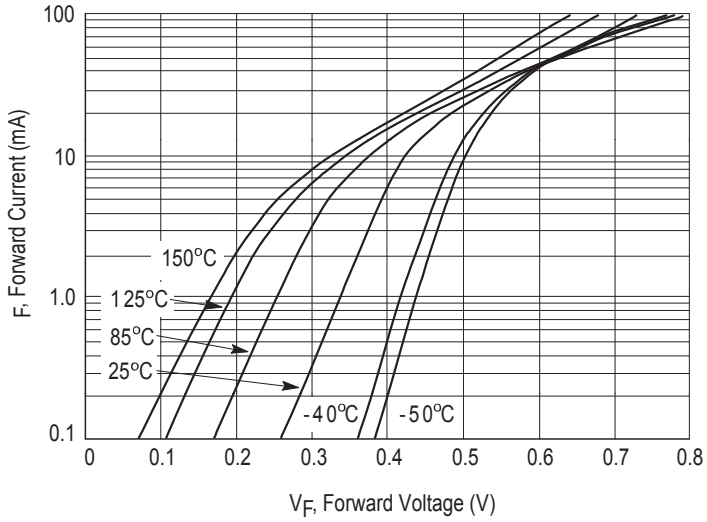


Figure 1. Typical Forward Voltage

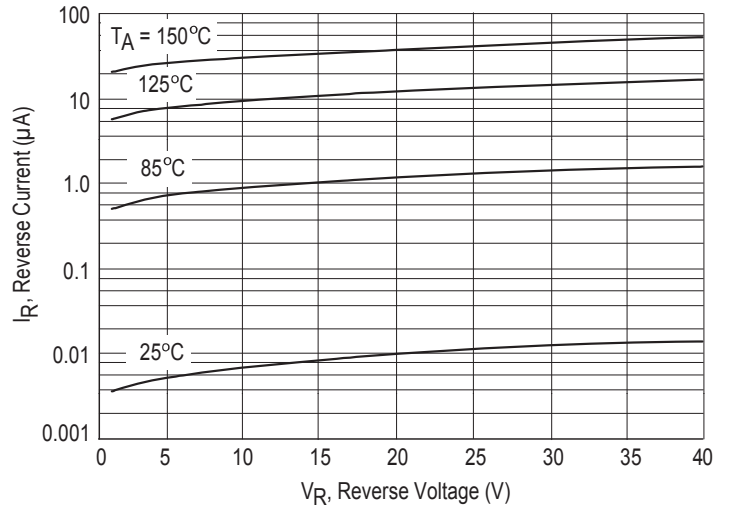


Figure 2. Reverse Current versus Reverse Voltage

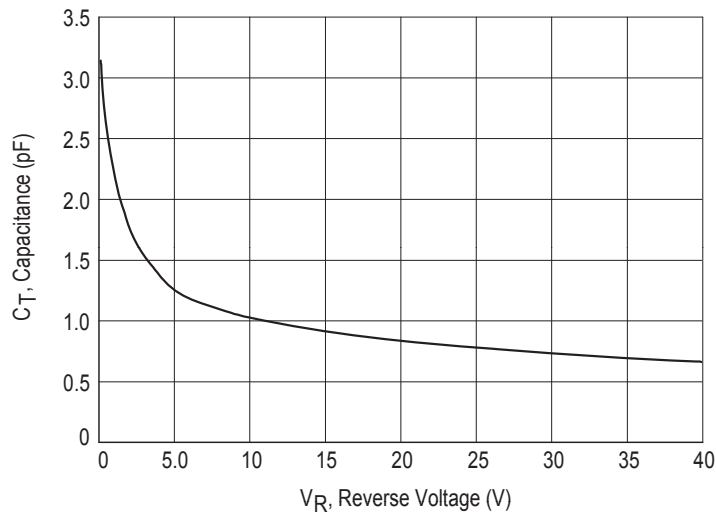


Figure 3. Typical Capacitance