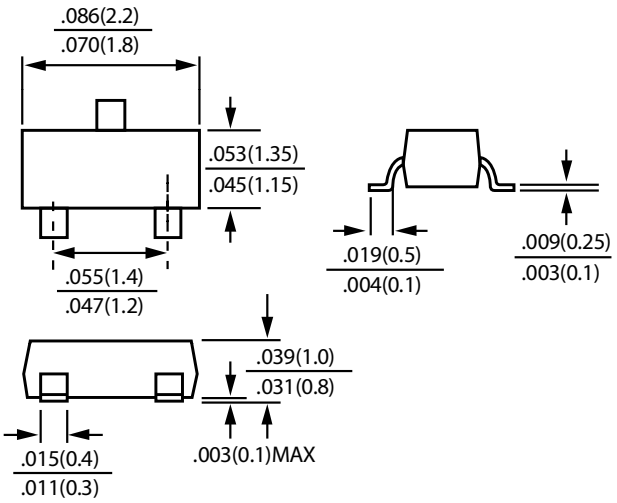
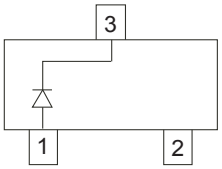
BAS40W/04W/05W/06W

Surface Mount
Schottky Barrier Rectifiers

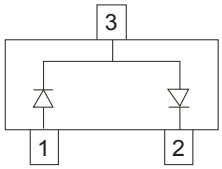


SOT-323

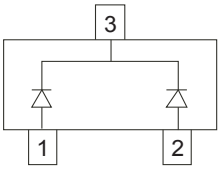
Dimensions in inches and (millimeters)



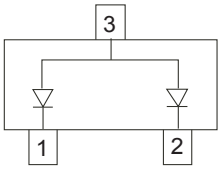
BAS40W Marking: 43



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 (TJ = 125°C unless otherwise noted)			
Rating	**Symbol**	**Value**	**Unit**
Reverse Voltage	V_R	40	V
Single Forward Current, t≦10 ms	I_{FSM}	600	mA
Forward Power Dissipation@ TA = 25°C Derate above 25°C	P_F	325 1.8	mW mW / °C
Thermal Resistance (Note 1) Junction to Ambient (Note 2)	$R_{\theta JA}$	508 311	°C/W
Forward Current (DC)	I_F	200	mA
Junction,Storage Temperature Range	T_J,T_{stg}	-55 ~ 150	°C

ELECTRICAL CHARACTERISTICS (TA = 25°C unless otherwise noted) (EACH DIODE)					
Characteristic	**Symbol**	**Min**	**Typ**	**Max**	**Unit**
Reverse Breakdown Voltage (IR = 10 uA)	$V_{(BR)R}$	40	—	—	Volts
Total Capacitance (V_R = 1.0 V, f = 1.0 MHz)	C_T	—	—	5	pF
Reverse Leakage (V_R = 30 V)	I_R	—	—	0.2	uAdc
Forward Voltage (I_F = 1 mAdc)	V_F	—	—	0.38	Vdc
Forward Voltage (I_F = 40 mAdc)	V_F	—	—	1	Vdc
Reverse Recovery Time (I_F = I_R = 10 mAdc, $I_{R(REC)}$ = 1.0 mAdc R_L=100Ω) Figure 1	trr	—	—	5	nS

Surface Mount
Schottky Barrier Rectifiers

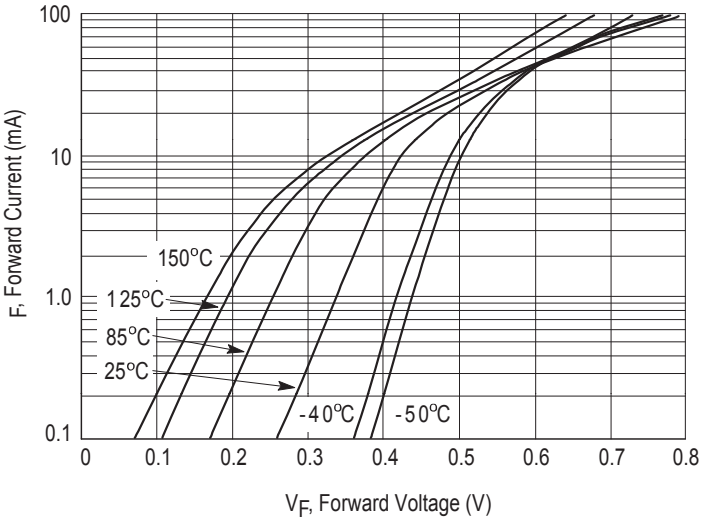


Figure 1. Typical Forward Voltage

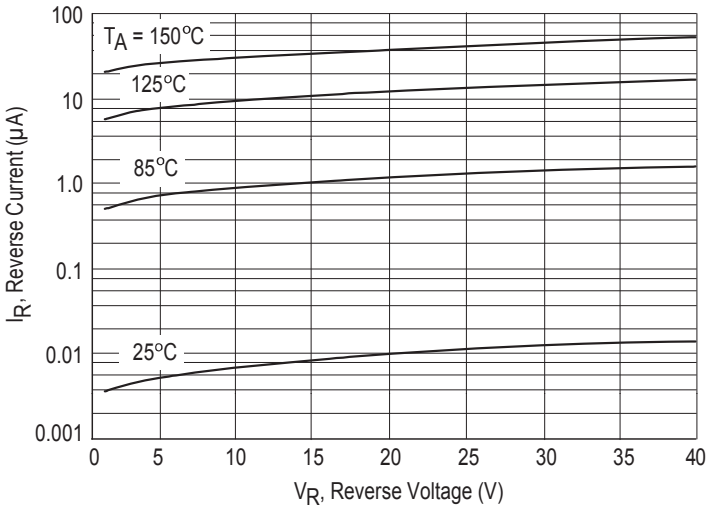


Figure 2. Reverse Current versus Reverse Voltage

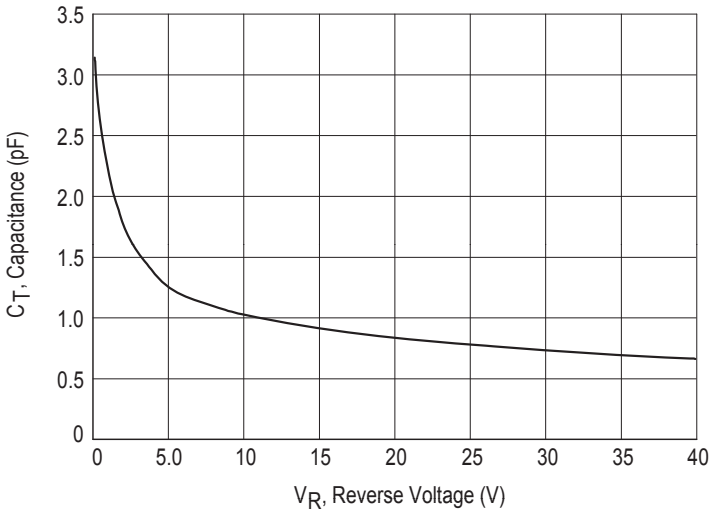


Figure 3. Typical Capacitance