

# Surface Mount Schottky Diode

## BAS40 Thru BAS40-06

Voltage: 40 Volts  
Power: 200mW

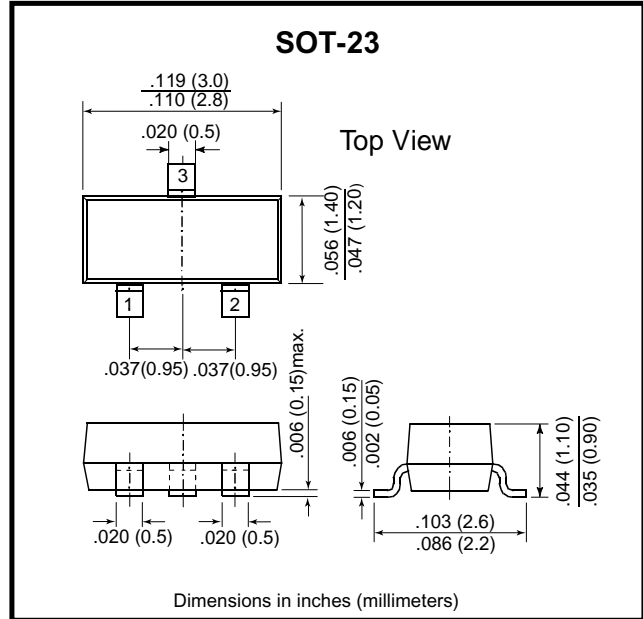
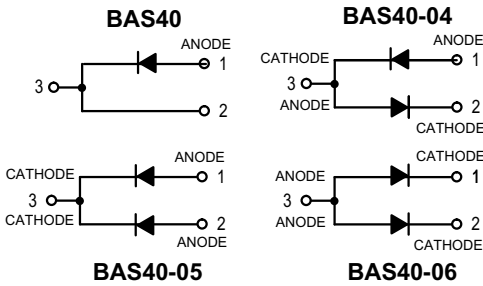


### Features

- Low Turn-on Voltage
- Low Forward Voltage - 0.5V(Max) @ IF = 30 mA
- Very Low Capacitance - Less Than 5.0pF @ 1V
- For high speed switching application, circuit protection

### Mechanical data

Case: SOT-23, Molded Plastic  
Weight: 0.008 grams (approx.)  
Mounting Position: Any



## Maximum Ratings and Thermal Characteristics (TA = 25°C unless otherwise noted)

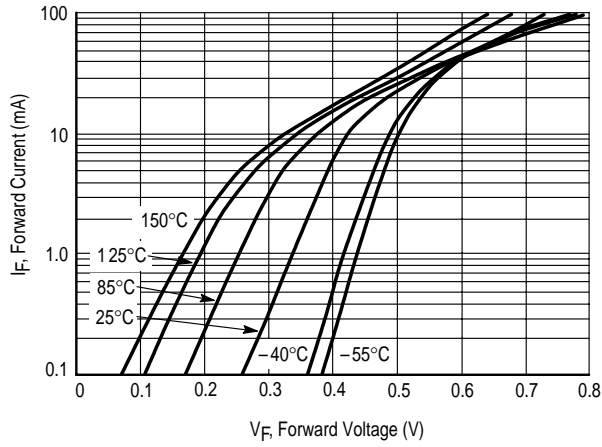
Rating	Symbol	Value	Units
Repetitive Peak Reverse Voltage	$V_{RRM}$	40	V
Forward Continuous Current at Tamb = 25°C	$I_F$	200(1)	mA
Surge Forward Current at tp < 1 s, Tamb = 25°C	$I_{FSM}$	600(1)	mA
Power Dissipation(1) at Tamb = 25°C	$P_{tot}$	200(1)	mW
Thermal Resistance Junction to Ambient Air	$R_{thJA}$	430(1)	°C/W
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_s$	-55 to +150	°C

## Electrical Characteristics (TA = 25°C unless otherwise noted)

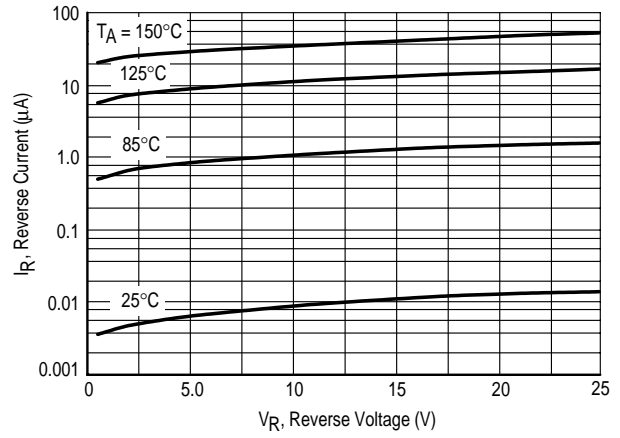
Parameter	Symbol	Test Condition	Min	Typ	Max	Units
Reverse Breakdown Voltage	$V(BR)R$	IR = 10µA (pulsed)	40.0	-	-	V
Leakage Current	IR	Pulse Test tp < 300µs VR = 30V	-	20	100.0	nA
Forward Voltage	VF	Pulse Test tp < 300µs IF = 1mA IF = 40mA	-	-	380 1000	mV mV
Capacitance	Ctot	VR = 0V f = 1MHz	-	40	5	pF
Reverse Recovery Time	Trr	IF = 10mA, IR = 10mA Irr = 1mA, RL = 100Ω	-	-	5	nS

Note: (1) Device on fiberglass substrate, see layout on next page.

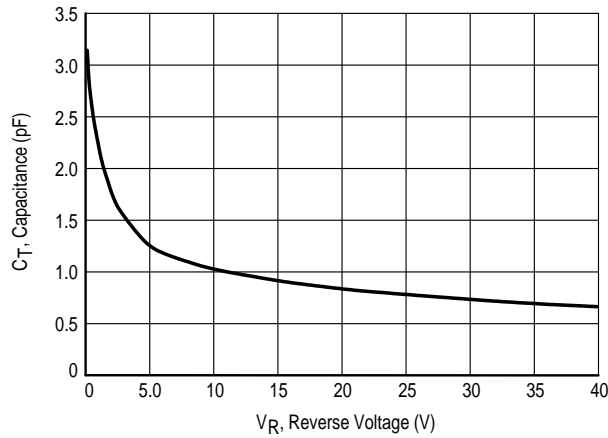
## RATING AND CHARACTERISTIC CURVES (BAS40 thru BAS40-06)



**Figure 1. Typical Forward Voltage**



**Figure 2. Reverse Current versus Reverse Voltage**



**Figure 3. Typical Capacitance**

This datasheet has been download from:

[www.datasheetcatalog.com](http://www.datasheetcatalog.com)

Datasheets for electronics components.