

## Schottky Barrier Diode

Reverse Voltage - **30** Volts  
Forward Current - **200** Milliampere

### FEATURES

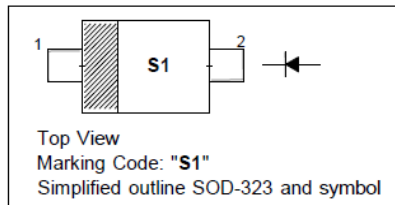
- Low forward voltage
- Guard ring protected
- Small plastic SMD SOD-323 package

### APPLICATIONS

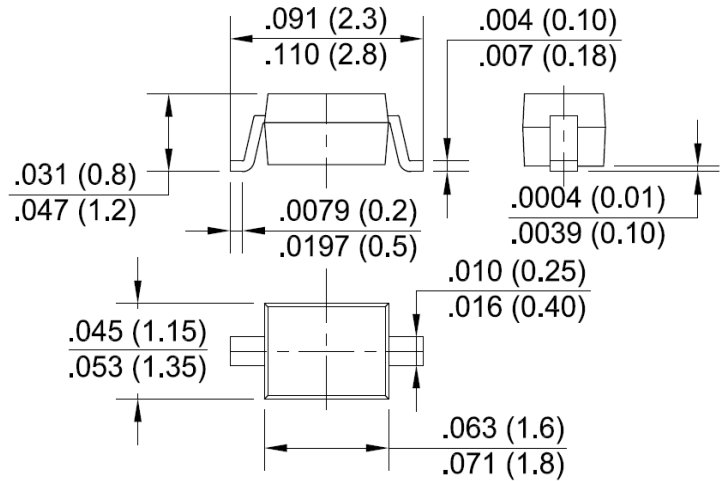
- Ultra high-speed switching
- Voltage clamping
- Protection circuits

#### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



### SOD-323



### Absolute Maximum Ratings (T<sub>a</sub>=25°C)

Parameter	Symbol	BAT54WS	Unit
Reverse Voltage	V <sub>R</sub>	30	V
Forward Current	I <sub>F</sub>	200	mA
Repetitive Peak Forward Current	I <sub>FRM</sub>	300	mA
Peak Forward Surge Current (t <sub>p</sub> = 10 ms)	I <sub>FSM</sub>	600	mA
Power Dissipation	P <sub>D</sub>	230	mW
Thermal Resistance from Junction Ambient	R <sub>θJA</sub>	500	K/W
Junction Temperature	T <sub>J</sub>	125	°C
Storage Temperature	T <sub>STG</sub>	-65 to +150	°C
Max.Forward Voltage	V <sub>F</sub>	@ I <sub>F</sub> = 0.1 mA	0.24
		@ I <sub>F</sub> = 1mA	0.32
		@ I <sub>F</sub> = 10 mA	0.4
		@ I <sub>F</sub> = 30 mA	0.5
		@ I <sub>F</sub> = 100 mA	0.8
Max.Peak Reverse Current @V <sub>R</sub> = 25 V	I <sub>R</sub>	2	μA
Max.Total Capacitance @V <sub>R</sub> = 1 V, f = 1 MHz	C <sub>T</sub>	10	pF
Max.Reverse Recovery Time @ at I <sub>F</sub> = 10 mA, V <sub>R</sub> = 6 V, I <sub>R</sub> = 10 mA, R <sub>L</sub> = 100 Ω	t <sub>rr</sub>	6	ns

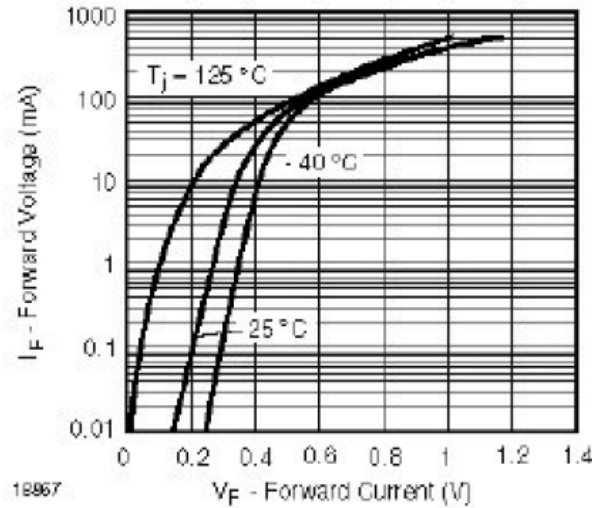


Figure 1. Typical Forward Voltage Forward Current at Various Temperatures

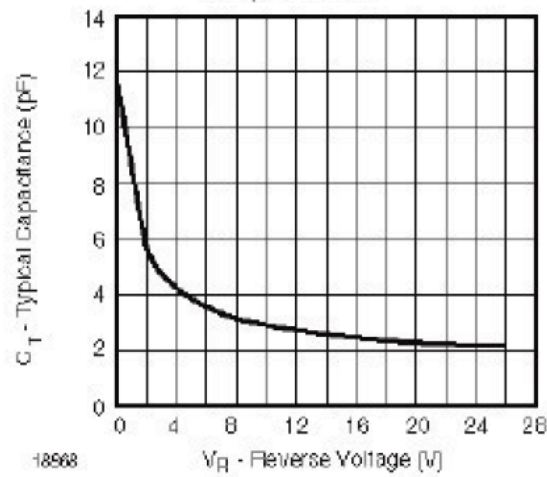


Figure 2. Typical Capacitance °C vs. Reverse Applied Voltage  $V_R$

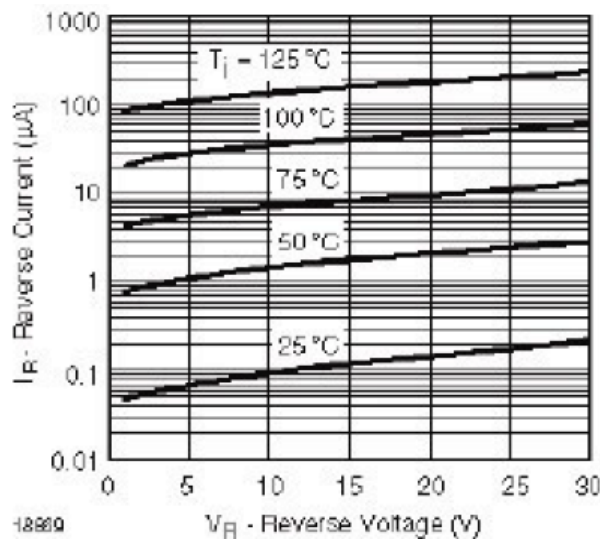


Figure 3. Typical Variation of Reverse Current at Various Temperatures



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