

SURFACE MOUNT SWITCHING DIODES

VOLTAGE 75-200 Volts

POWER 350 mWatts

PACKAGE SOT-23

FEATURES

- Fast switching speed.
- Surface mount package Ideally Suited for Automatic insertion
- Electrically Identical to Standard JEDEC
- High Conductance

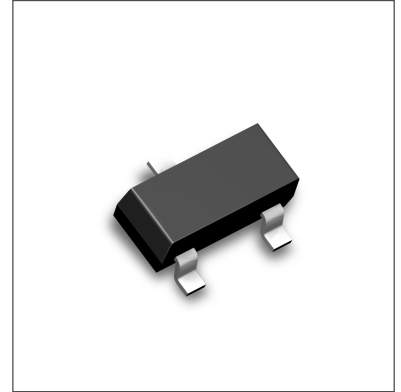
MECHANICAL DATA

Case: SOT-23, Plastic

Terminals: Solderable per MIL-STD-202, Method 208

Approx. Weight: 0.008 gram

Marking: A6, A8, A80, A82



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

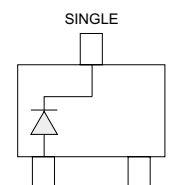
Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

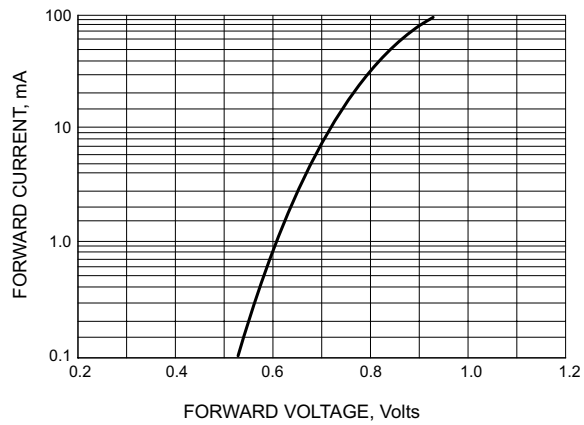
PARAMETER	SYMBOL	BAS16	BAS19	BAS20	BAS21	UNITS
Reverse Voltage	V_R	75	100	150	200	V
Peak Reverse Voltage	V_{RM}	100	120	200	250	V
Rectified Current (Average), Half Wave Rectification with Resistive Load and $f \geq 50$ Hz	I_o	250	200	200	200	mA
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	2	2.5	2.5	2.5	A
Power Dissipation Derate Above 25°C	P_{TOT}	350	350	350	350	mW
Maximum Forward Voltage @ $I_F=10mA$ @ $I_F=100mA$	V_F	0.855 -	- 1.0	- 1.0	- 1.0	V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J = 25^\circ C$	I_R	1	0.1	0.1	0.1	μA
Typical Junction Capacitance(Notes1)	C_J	2	1.5	1.5	1.5	pF
Maximum Reverse Recovery (Notes2)	T_{RR}	6	50	50	50	ns
Maximum Thermal Resistance	$R_{\theta JA}$	357				$^\circ C / W$
Storage Temperature Range	T_J	-55 TO +125				$^\circ C$

NOTE:

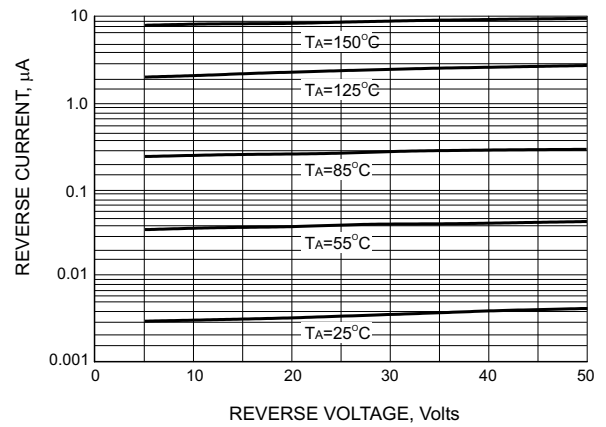
1. C_J at $V_R=0$, $f=1MHz$

2. From $I_F=10mA$ to $I_R=1mA$, $V_R=6Volts$, $R_L=100\Omega$


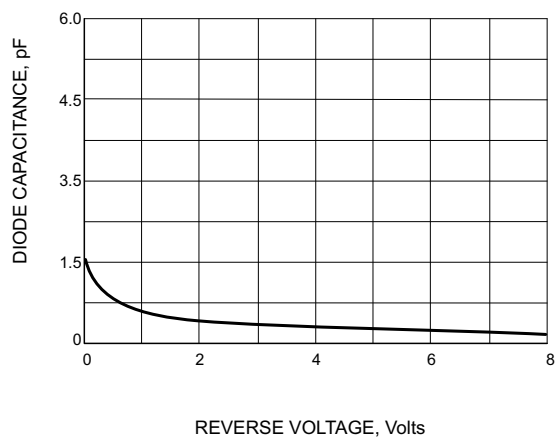
BAS16, BAS19, BAS20, BAS21



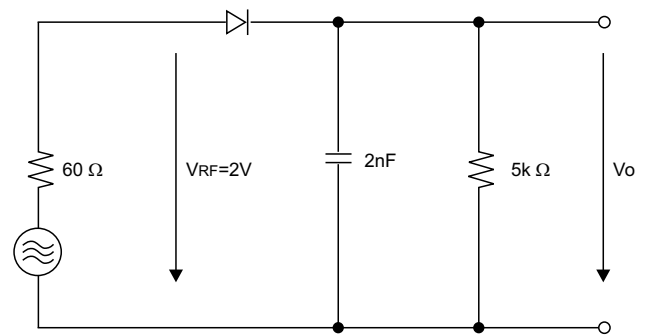
FORWARD VOLTAGE



LEAKAGE CURRENT

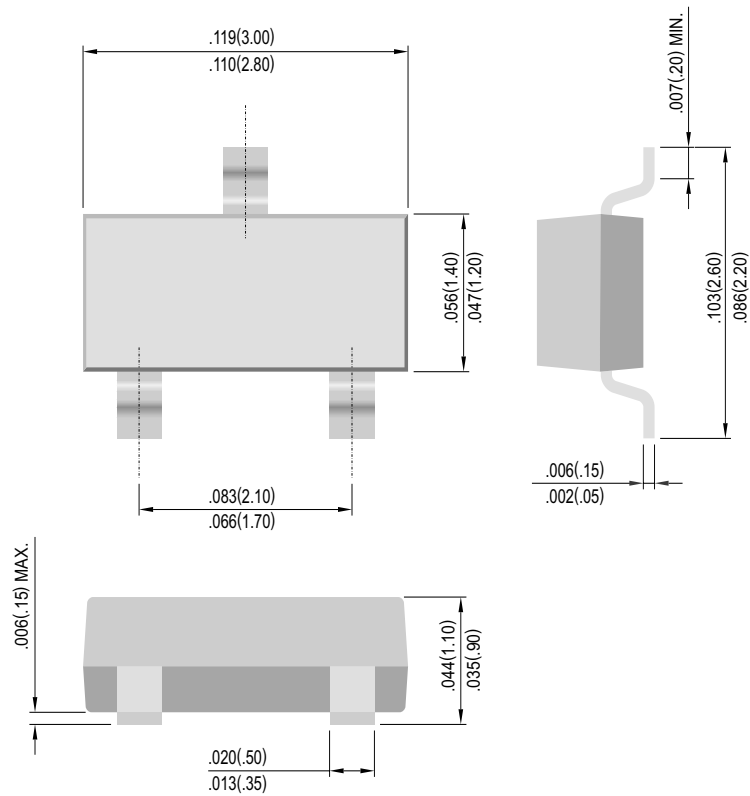


TYPICAL CAPATICANCE



RECTIFICATION EFFICIENCY MEASUREMENT CIRCUIT

SOT-23



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