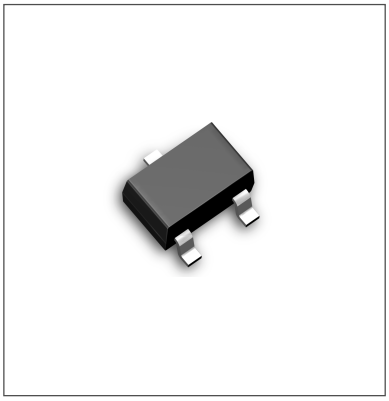
BAS16W, BAS19W, BAS20W, BAS21W

SURFACE MOUNT SWITCHING DIODES

VOLTAGE 75-200 Volts **POWER** 200 mWatts **PACKAGE** SOT-323

FEATURES

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



MECHANICAL DATA

Case: SOT-323, 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.

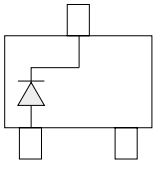
For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	BAS16W	BAS19W	BAS20W	BAS21W	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 >=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}	2.0	2.5	2.5	2.5	A
Power Dissipation Derate Above 25°C	P_{TOT}	200	200	200	200	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°C	I_R	1.0	0.1	0.1	0.1	µA
Typical Junction Capacitance(Notes1)	CJ	2.0	1.5	1.5	1.5	pF
Maximum Reverse Recovery (Notes2)	T_{RR}	6.0	50	50	50	ns
Maximum Thermal Resistance	RθJA	357				°C / W
Storage Temperature Range	T_J	-55 TO +125				°C

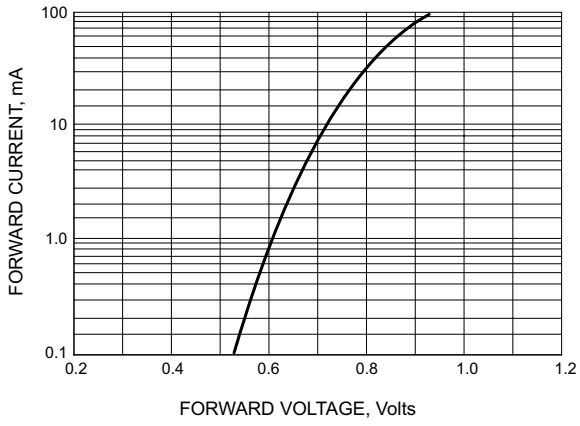
NOTE:

1. CJ at V_R=0, f=1MHZ
2. From I_F=10mA to I_R=1mA, V_R=6Volts, R_L=100Ω

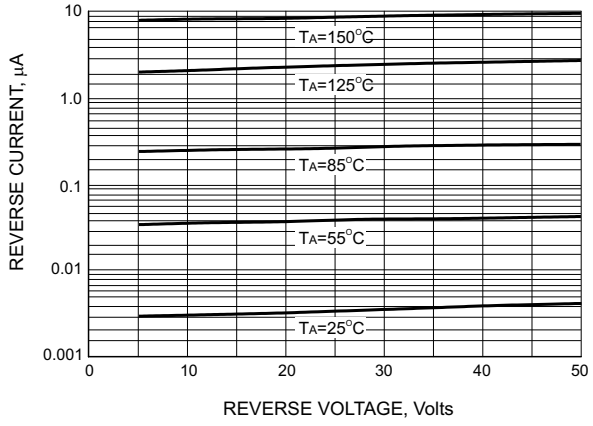
SINGLE



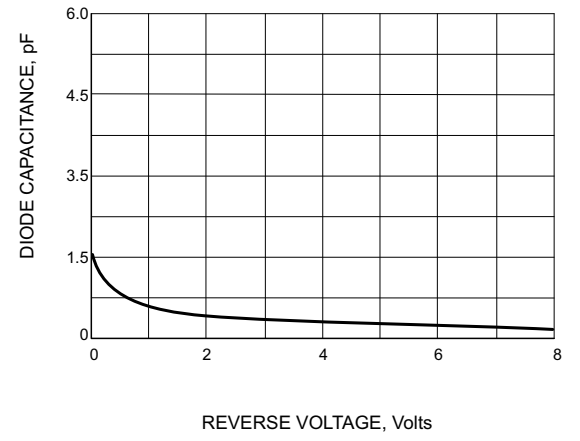
BAS16W, BAS19W, BAS20W, BAS21W



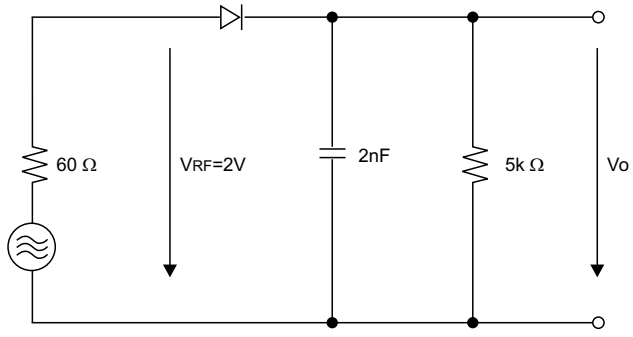
FORWARD VOLTAGE



LEAKAGE CURRENT

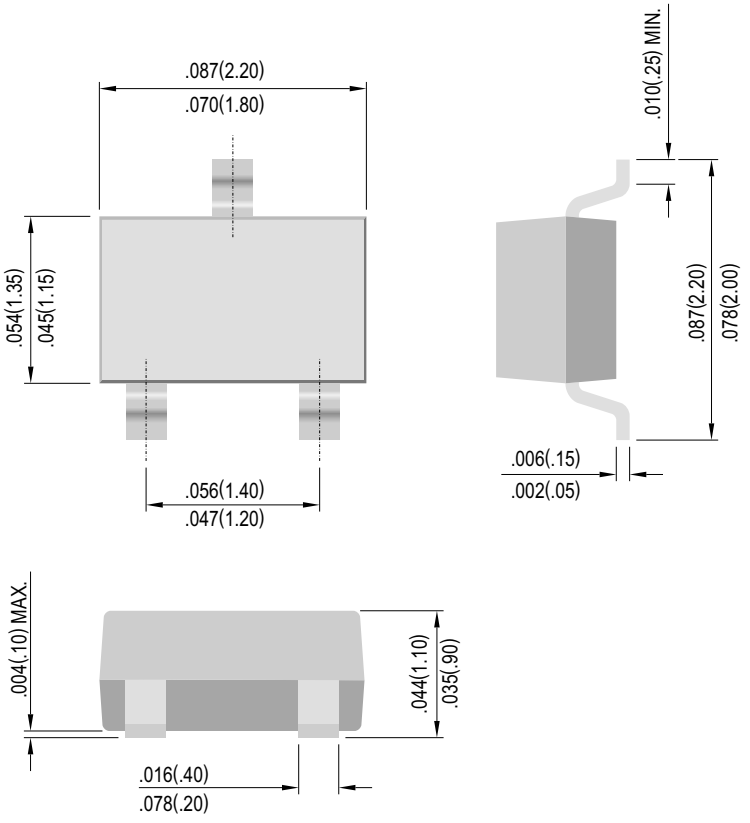


TYPICAL CAPATICANCE



RECTIFICATION EFFCIENCY MEASUREMENT CIRCUIT

SOT-323



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