



## SURFACE MOUNT SWITCHING DIODE

### BAS19 THRU BAS21

VOLTAGE RANGE  
CURRENT

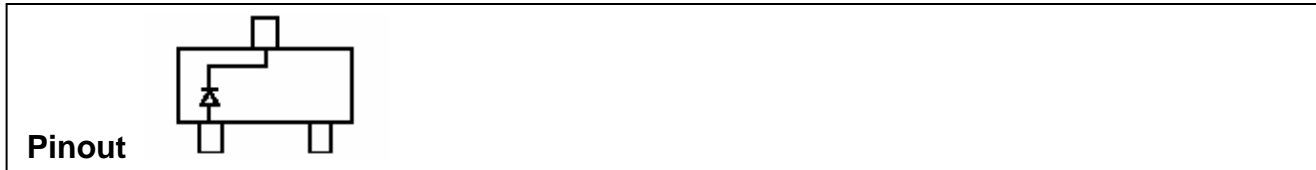
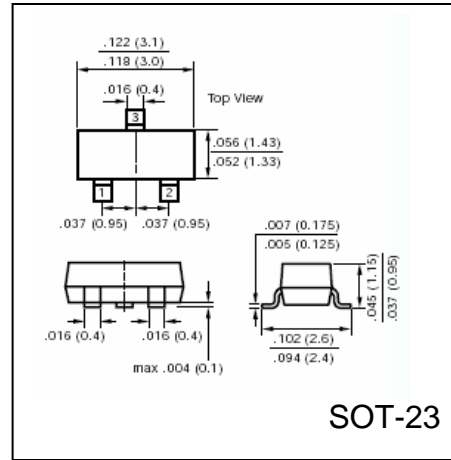
100 To 200 Volts  
400 mA

#### FEATURES

- Fast Switching speed
- Low turn on Voltage
- Guard ring for transient and ESD protection

#### MECHANICAL DATA

- Case: Transfer molded plastic, SOT-23
- Terminals: solderable per MIL-STD-202E Method 208C
- Pinout: See diagram
- Weight: 0.00028 ounce, 0.008gram



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified

	SYMBOLS	BAS19	BAS20	BAS21	UNIT
Repetitive Peak Reverse Voltage	$V_{RRM}$	120	200	250	Volt
Continuous Reverse Voltage	$V_R$	100	150	200	Volt
RMS Reverse Voltage	$V_{rms}$	71	106	141	Volt
Forward Continuous Current	$I_{FM}$	400			mA
Non-Repetitive Peak Forward Surge Current @ $T = 1.0\mu S$ $T = 1.0S$	$I_{FSM}$	2.5 0.5			Amps
Peak Forward Surge Current @ $T_P < 1$ Sec, $T_A = 25^\circ C$	$I_{FSM}$	625			mA
Minimum Reverse Breakdown Voltage, 100 $\mu A$ pulses	$V_{BRR}$	75			Volts
Maximum Forward Voltage @ 100mA 200mA	$V_F$	1.0 1.25			Volts
Maximum Leakage Current, (Note 1) @ $T_j = 25^\circ C$ $T_j = 100^\circ C$	$I_R$	100 15			nA $\mu A$
Maximum Reverse Recovery Time $I_F = 10mA, I_R = 10mA, I_{RR} = 1mA, R_L = 100\Omega$	$t_{rr}$	50			nS
Power dissipation (Note 1)	$P_{TOT}$	250			mW
Typical Junction Capacitance, $V_F = 1V, f = 1MHz$	$C_J$	5.0			pF
Typical Thermal Resistance	$R_{\theta JA}$	450			$^\circ C/W$
Operating Junction Temperature Range	$T_J$	(-55 to +150)			$^\circ C$
Storage Temperature Range	$T_{STG}$	(-55 to +150)			$^\circ C$

#### Notes:

1. Short duration pulse test used



## RATINGS AND CHARACTERISTIC CURVES BAS19 THRU BAS21

