



SURFACE MOUNT SWITCHING DIODE

BAS16

VOLTAGE RANGE
CURRENT

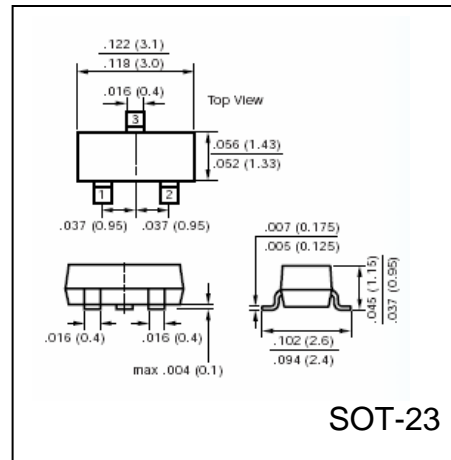
100 Volts
300 mA

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		UNIT
Non-Repetitive Peak Reverse Voltage	V_R	100	Volt
Maximum Repetitive Peak Reverse Voltage	V_{RM}	75	Volts
Forward Continuous Current	I_{FM}	300	mA
Non-Repetitive Peak Forward Surge Current @ $T = 1.0\mu S$ $T = 1.0S$	I_{FSM}	2.0 1.0	Amps
Peak Forward Surge Current @ $T_P < 1$ Sec, $T_A = 25^\circ C$	I_{FSM}	600	mA
Minimum Reverse Breakdown Voltage, 100 μA pulses	V_{BRR}	75	Volts
Maximum Forward Voltage @ 1.0mA 10mA 50mA 150mA	V_F	0.715 0.855 1.0 1.25	Volts
Maximum Leakage Current, (Note 1) @ $V_R = 75V$ $V_R = 75V, T_J = 150^\circ C$ $V_R = 25V, T_J = 150^\circ C$	I_R	1.0 50 30	μA
Maximum Reverse Recovery Time $I_F = 10mA, I_R = 10mA, I_{RR} = 1mA, R_L = 100\Omega$	t_{rr}	4	nS
Power dissipation (Note 1)	P_{TOT}	350	mW
Typical Junction Capacitance, $V_F = 1V, f = 1MHz$	C_J	2.0	pF
Typical Thermal Resistance	$R_{\theta JA}$	355	$^\circ C/W$
Operating Junction Temperature Range	T_J	(-55 to +150)	$^\circ C$
Storage Temperature Range	T_{STG}	(-55 to +150)	$^\circ C$

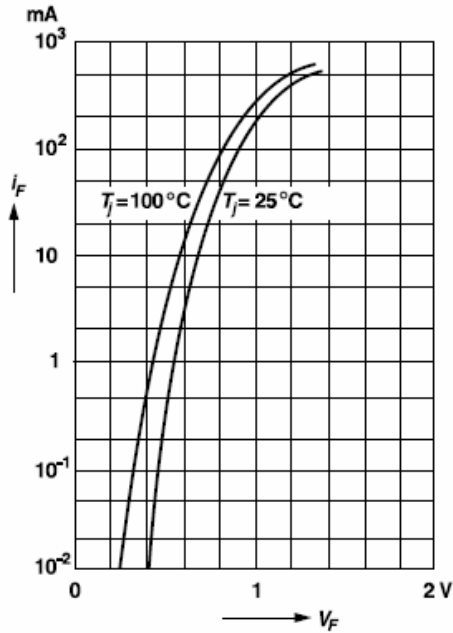
Notes:

1. Short duration pulse test used

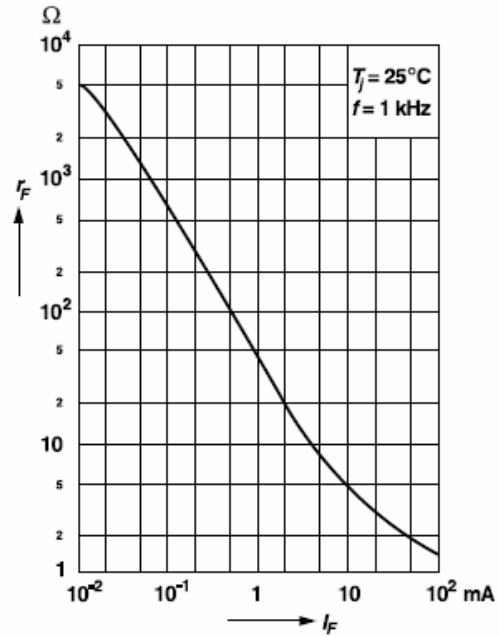


RATINGS AND CHARACTERISTIC CURVES BAS16

Forward characteristics

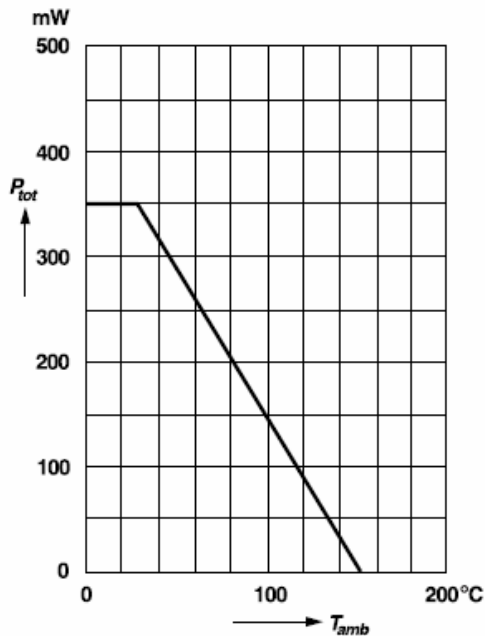


Dynamic forward resistance versus forward current



Admissible power dissipation versus ambient temperature

For conditions, see footnote in table "Absolute Maximum Ratings"



Relative capacitance versus reverse voltage

