



BAS16~BAS21

SURFACE MOUNT SWITCHING DIODES

VOLTAGE 100-250 Volts **POWER** 250mWatts

SOT-23 Unit: inch (mm)

FEATURES

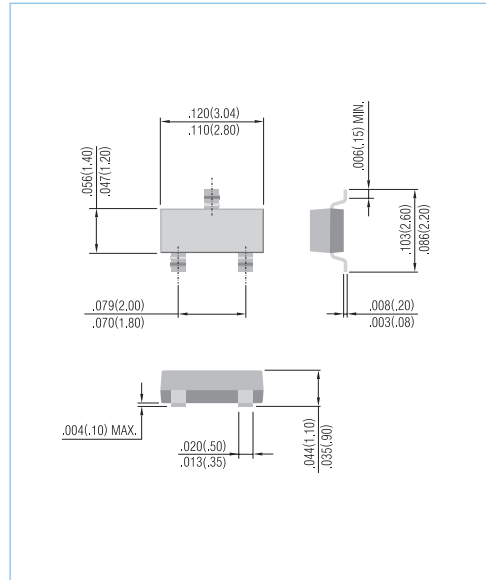
- Fast switching speed.
- Surface mount package Ideally Suited for Automatic insertion
- Electrically Identical to Standard JEDEC
- High Conductance
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

Case: SOT-23, Plastic

Terminals: Solderable per MIL-STD-750, Method 2026

Approx. Weight: 0.008 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

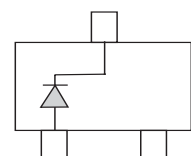
Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	BAS16	BAS19	BAS20	BAS21	UNITS
Marking Code		A6	A8	A80	A82	
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, $t_p=1.0\mu s$ 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	V_F	0.855@10mA	1.0@100mA			V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J= 25^\circ C$	I_R	1	1	1	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
Typical 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 $I_R=1mA$, $V_R=6Volts$, $R_L=100\Omega$

SINGLE





BAS16~BAS21

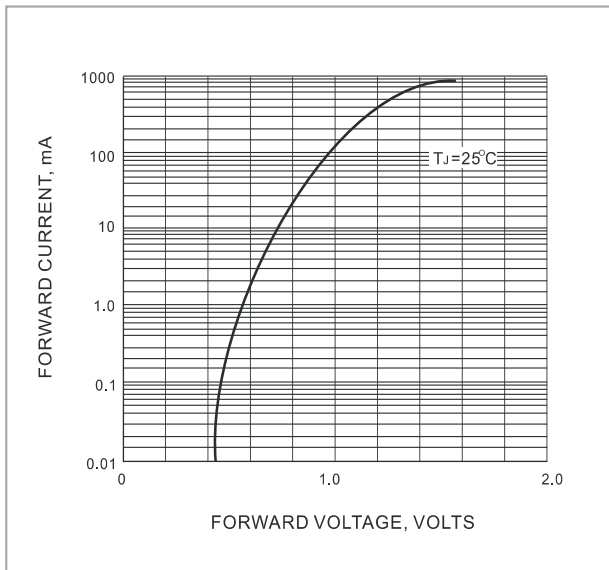


FIG. 1-TYPICAL FORWARD CHARACTERISTIC

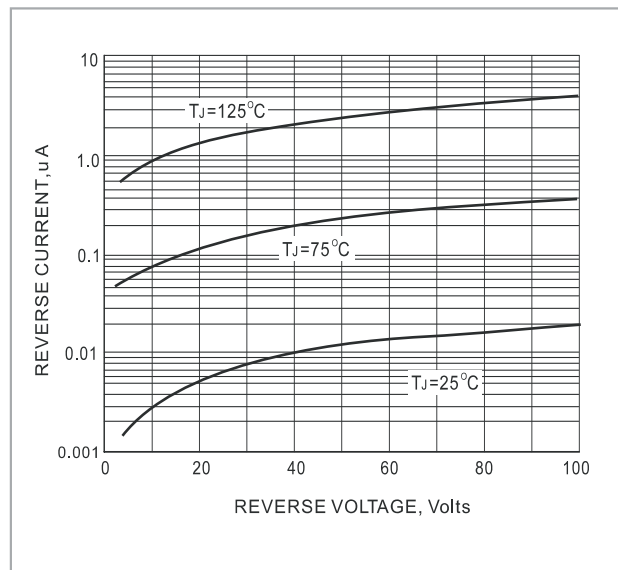


FIG. 2-TYPICAL REVERSE CHARACTERISTICS

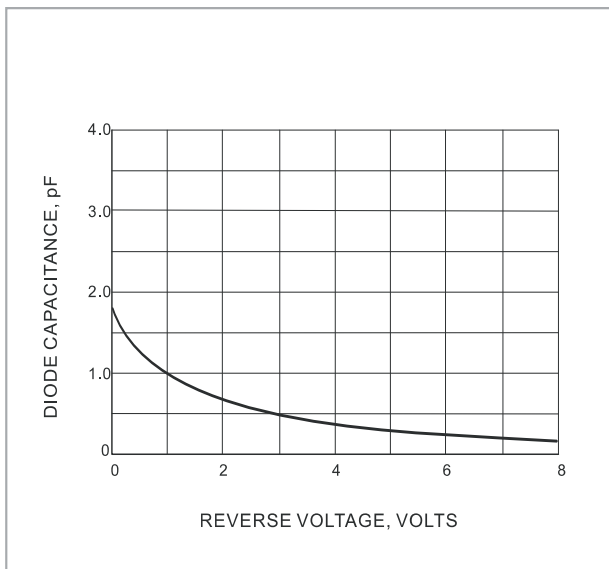


FIG. 3 TYPICAL JUNCTION CAPACITANCE

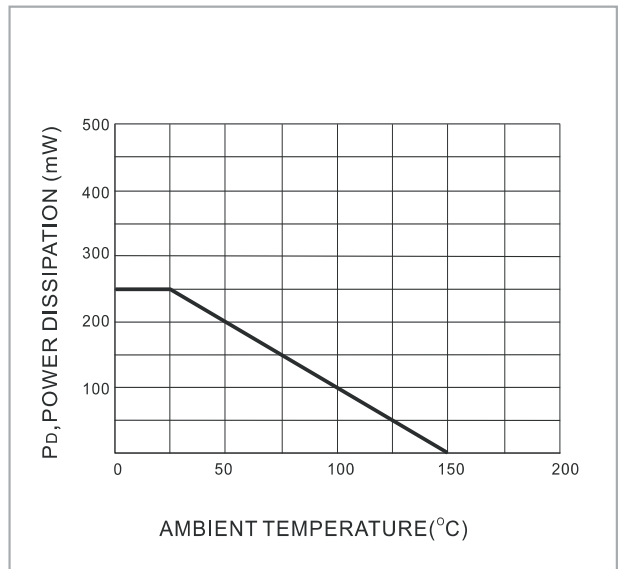
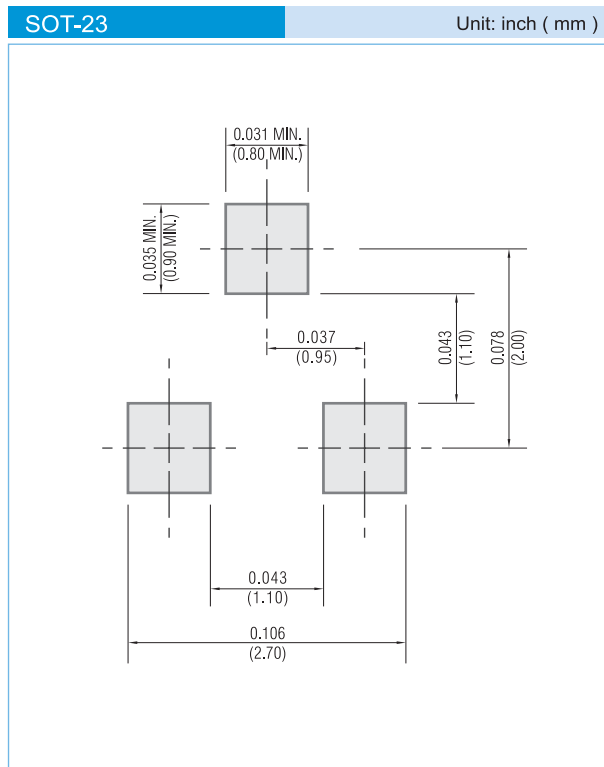


FIG. 4 POWER DERATING CURVE



BAS16~BAS21

MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 12K per 13" plastic Reel
 - T/R - 3K per 7" plastic Reel

LEGAL STATEMENT

Copyright PanJit International, Inc 2009

The information presented in this document is believed to be accurate and reliable. The specifications and information herein are subject to change without notice. Pan Jit makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose. Pan Jit products are not authorized for use in life support devices or systems. Pan Jit does not convey any license under its patent rights or rights of others.