



BAS16-AU~BAS21-AU

SURFACE MOUNT SWITCHING DIODES

VOLTAGE 100-250 Volt **POWER** 350mWatt

SOT-23 Unit : inch(mm)

FEATURES

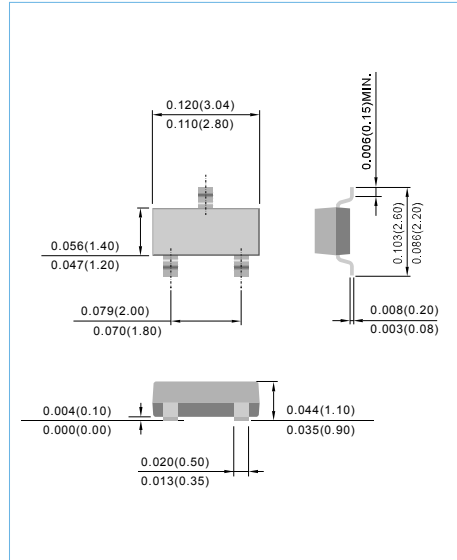
- Fast switching speed.
- Surface mount package Ideally Suited for Automatic insertion
- Electrically Identical to Standard JEDEC
- High Conductance
- Acquire quality system certificate : TS16949
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

Case: SOT-23, Plastic

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

Approx. Weight: 0.0003 ounces, 0.0084 grams



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%.

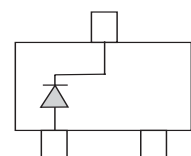
PARAMETER	SYMBOL	BAS16-AU	BAS19-AU	BAS20-AU	BAS21-AU	UNITS
Marking Code		A6	A8	A80	A82	
Reverse Voltage	V_R	75	100	150	200	V
Peak Reverse Voltage	V_{RM}	100	120	200	250	V
Rectified Current (Average), Half Wave Rectification with Resistive Load and $f \geq 50$ Hz	I_o	250	200	200	200	mA
Peak Forward Surge 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





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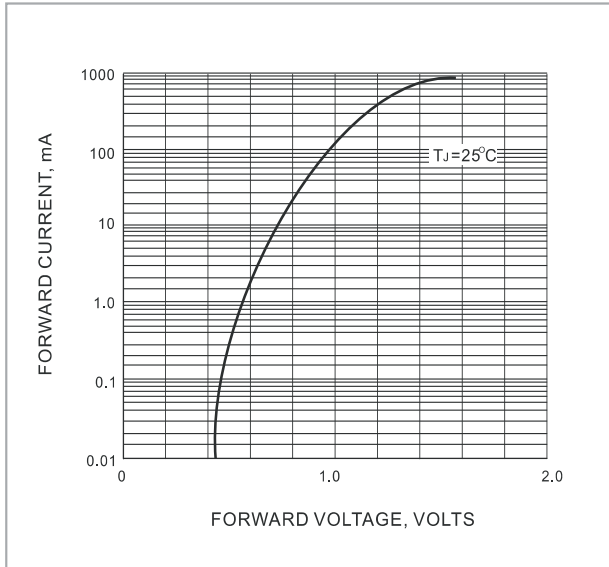


FIG. 1-TYPICAL FORWARD CHARACTERISTIC

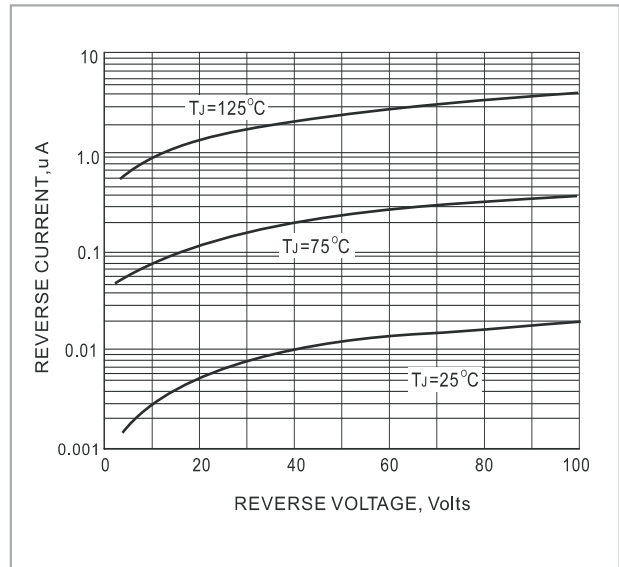


FIG. 2-TYPICAL REVERSE CHARACTERISTICS

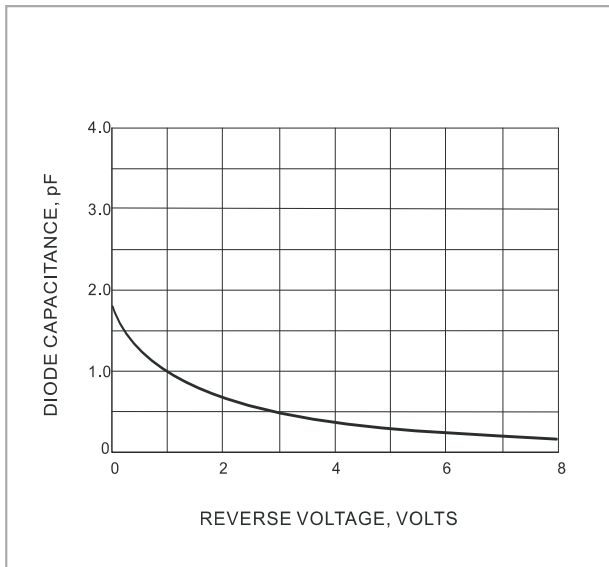


FIG. 3 TYPICAL JUNCTION CAPACITANCE

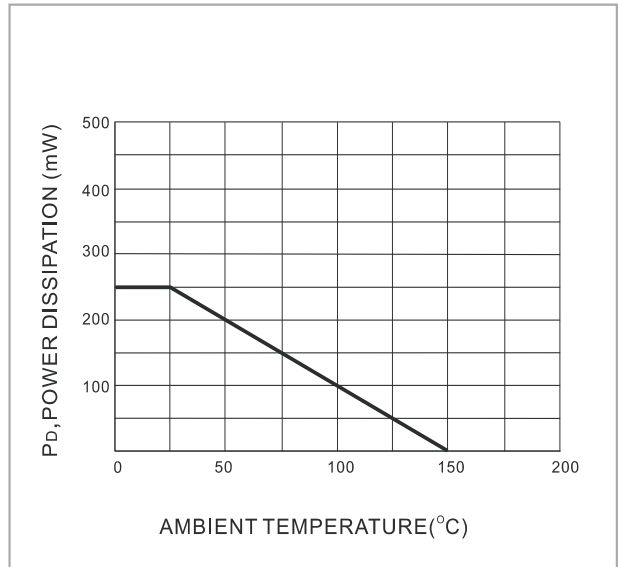
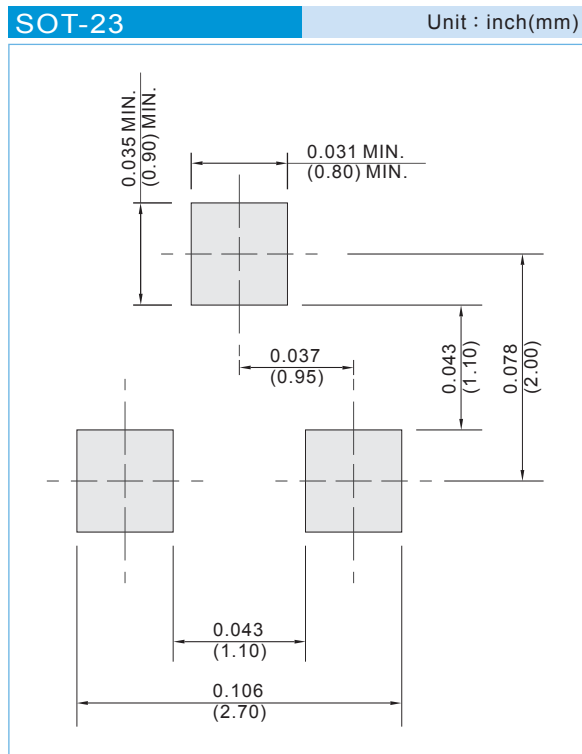


FIG. 4 POWER DERATING CURVE



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MOUNTING PAD LAYOUT



ORDER INFORMATION

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



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Part No_packing code_Version

BAS16-AU_R1_000A1

BAS16-AU_R2_000A1

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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