BAS16-AU~BAS21-AU

SURFACE MOUNT SWITCHING DIODES

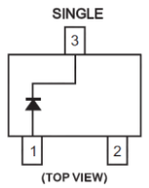
Voltage 100~250 V **POWER** 350 mW

Features

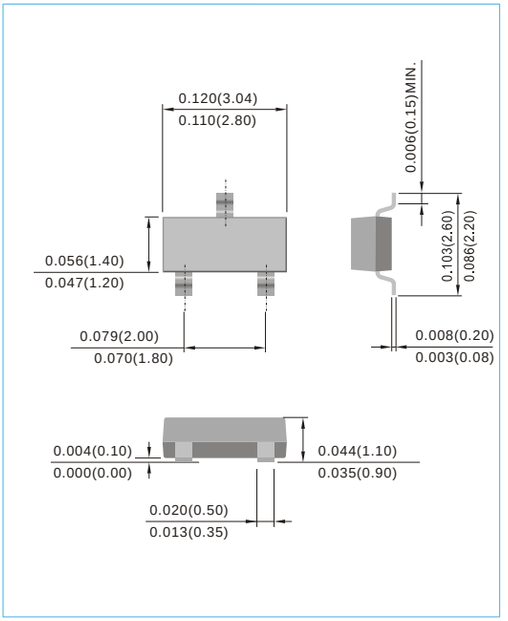
- Fast switching speed.
- Surface mount package Ideally Suited for Automatic insertion
- Electrically Identical to Standard JEDEC
- High Conductance
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard
- AEC-Q101 qualified

Mechanical Data

- Case: SOT-23, Plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0003 ounces, 0.0084 grams



SOT-23 Unit : inch(mm)



Maximum Ratings (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	BAS16-AU	BAS19-AU	BAS20-AU	BAS21-AU	UNIT
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 ≥50Hz	I_O	250	200	200	200	mA
Peak Forward Surge Current, tp=1μs Single Half Sine-Wave Superimposed On Rated Load	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	1.0@100mA	1.0@100mA	V
Maximum Dc Reverse Current At Rated Dc Blocking Voltage T_J=25°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 Time (Note 2)	T_{RR}	6	50	50	50	nS
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	357				°C/W
Operating Junction Temperature And Storage Temperature Range	T_J,T_{STG}	-55 to +150				°C

NOTES :

1. C_J at V_R=0, f=1MHz
2. From I_F=10mA to I_R =1mA, V_R=6Volts, R_L=100Ω
3. Mounted on a FR-4 PCB, single-sided copper, with 100cm^2 copper pad area

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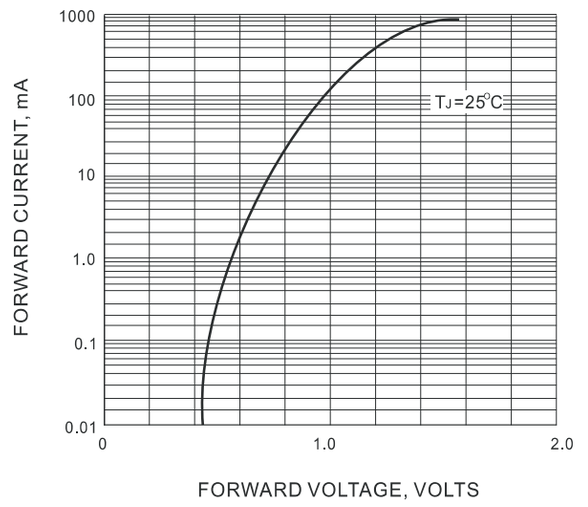

FIG. 1-TYPICAL FORWARD CHARACTERISTIC

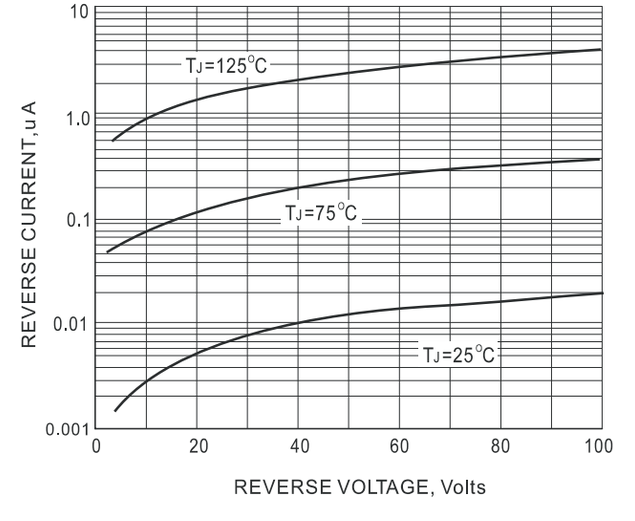

FIG. 2-TYPICAL REVERSE CHARACTERISTICS

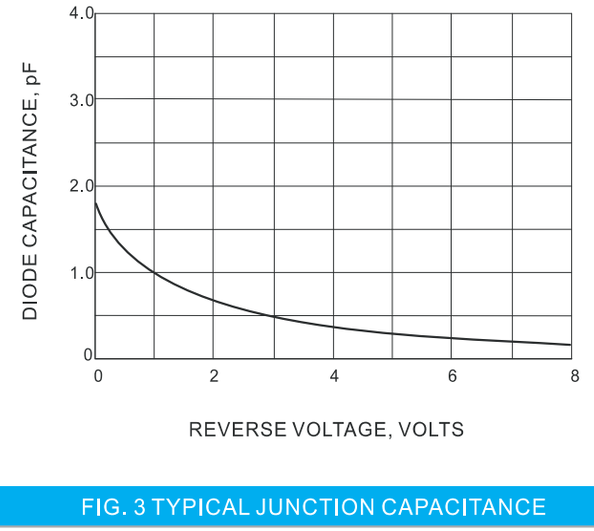

FIG. 3 TYPICAL JUNCTION CAPACITANCE

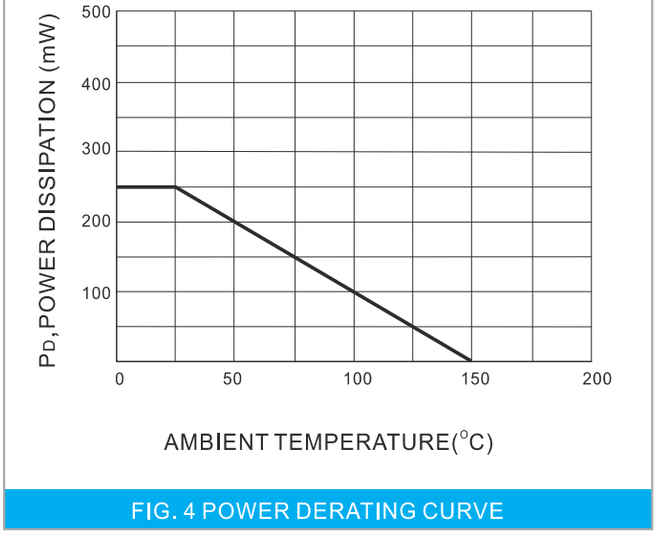

FIG. 4 POWER DERATING CURVE

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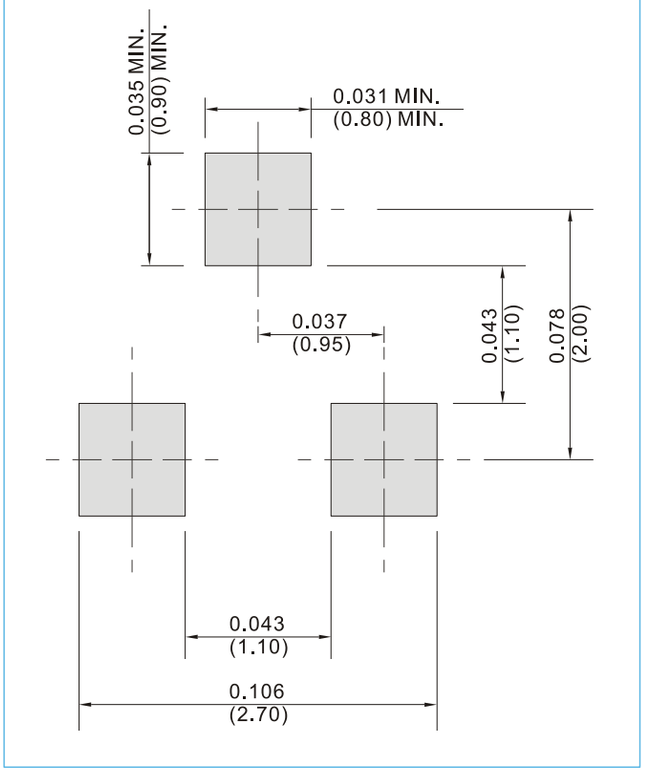
MOUNTING PAD LAYOUT

SOT-23 Unit : inch(mm)



ORDER INFORMATION

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

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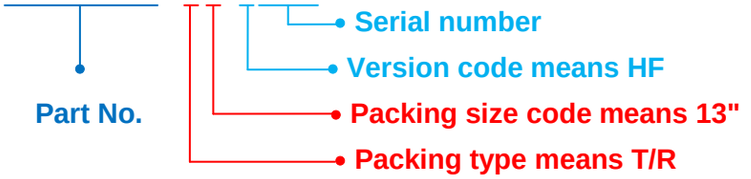
Part No_packing code_Version

BAS16-AU_R1_000A1

BAS16-AU_R2_000A1

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1st Code	Packing size code	2nd Code	HF or RoHS	1st Code	2nd~5th 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			