BAW56-AU / BAV70-AU / BAV99-AU / BAL99-AU

SURFACE MOUNT SWITCHING DIODES

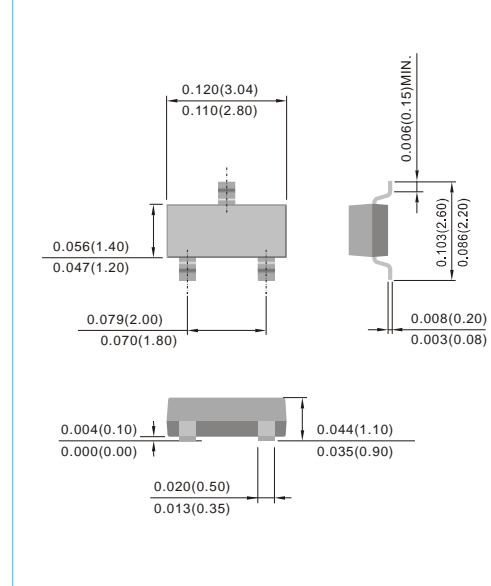| VOLTAGE	100 Volt	POWER	250mWatt

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
- Apporx. Weight: 0.0003 ounce, 0.0084 gram

SOT-23 — Unit : inch(mm)

0.120(3.04)
0.110(2.80)
0.006(0.15)MIN.
0.056(1.40)
0.047(1.20)
0.103(2.60)
0.086(2.20)
0.079(2.00)
0.070(1.80)
0.008(0.20)
0.003(0.08)
0.004(0.10)
0.000(0.00)
0.044(1.10)
0.035(0.90)
0.020(0.50)
0.013(0.35)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	BAW56-AU	BAV70-AU	BAV99-AU	BAL99-AU	UNITS
Marking Code	-	JC	JA	JB	JF	-
Reverse Voltage	V_R	75				V
Peak Reverse Voltage	V_{RM}	100				V
Rectified Current (Average), Half Wave Rectification with Resistive Load and f $\geq$50 Hz	I_O	150				mA
Peak Forward Surge Current, 0.001ms	I_{FSM}	4.0				A
Power Dissipation Derate Above 25°C	P_{TOT}	250				mW
Maximum Forward Voltage	V_F	0.715 @ I_F=1mA 0.855 @ I_F=10mA 1.0 @ I_F=50mA 1.25 @ I_F=150mA				V
Maximum DC Reverse Current at 25V 75V	I_R	0.03 2.5				µA
Maximum Junction Capacitance (Notes 1)	C_J	1.5				pF
Maximum Reverse Recovery Time (Notes 2)	t_{rr}	4.0				ns
Typical Thermal Resistance	$R_{\theta JA}$ $R_{\theta JC}$	360 205				^{O}C / W
Junction Temperature Range	T_J	-55 to +150				^{O}C
Circuit Figure	-	Common Anode	Common Cathode	Series	Single(Alt)	-

NOTE:

1. CJ at V_R=0, f=1MHz
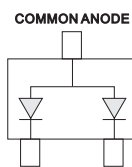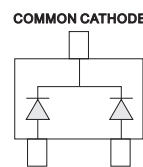
2. From I_F=10mA to I_R=1mA, V_R=6Volts, R_L=100Ω

COMMON ANODE
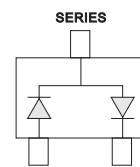Fig.15

COMMON CATHODE
Fig.16

SERIES
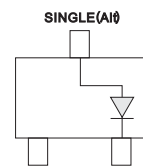Fig.17

SINGLE(Alt)
Fig.18

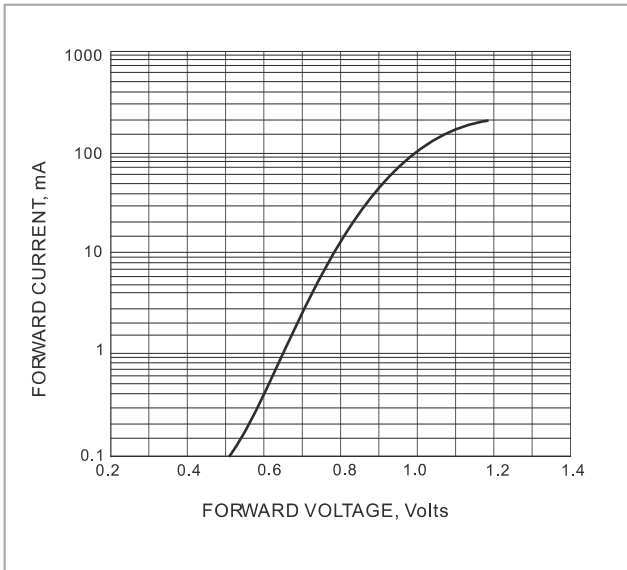## BAW56-AU / BAV70-AU / BAV99-AU / BAL99-AU

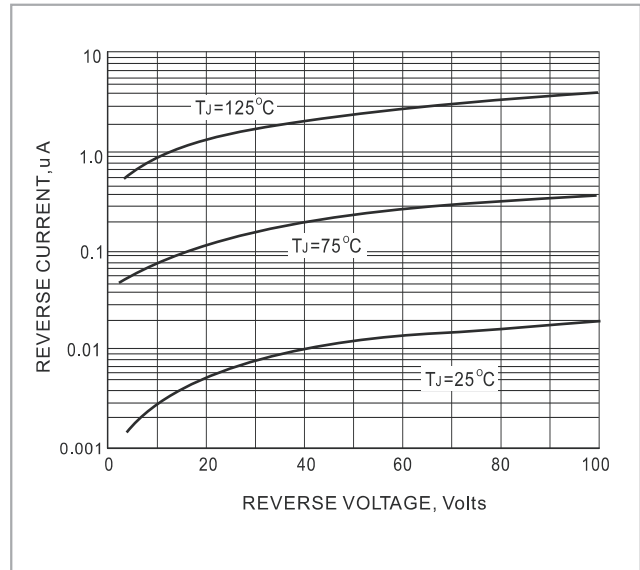**FIG. 1-TYPICAL FORWARD CHARACTERISTIC**

FIG. 2-TYPICAL REVERSE CHARACTERISTICS
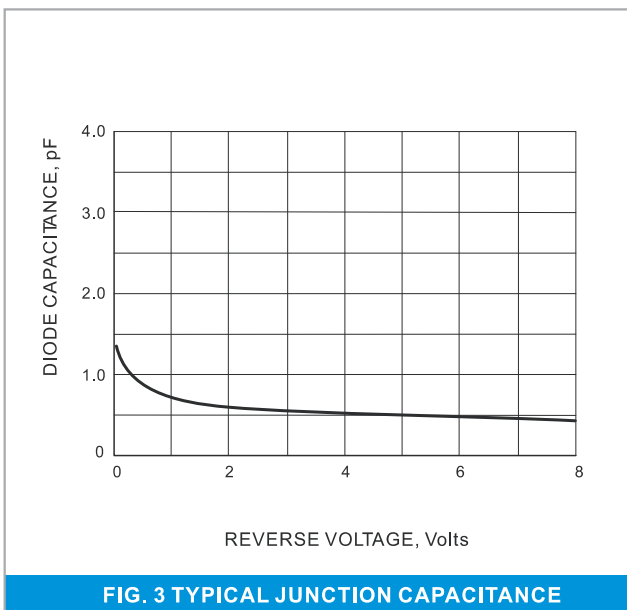

FIG. 3 TYPICAL JUNCTION CAPACITANCE
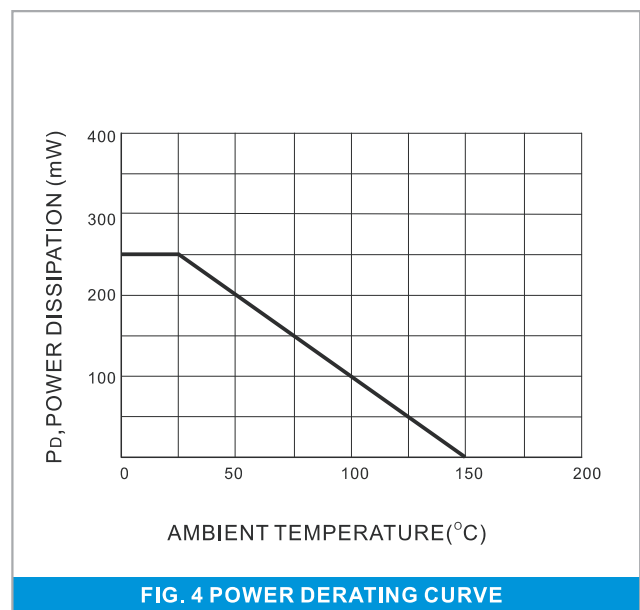
FIG. 4 POWER DERATING CURVE

BAW56-AU / BAV70-AU / BAV99-AU / BAL99-AU

MOUNTING PAD LAYOUT

SOT-23 Unit : inch(mm)

0.035 MIN.
(0.90) MIN.

0.031 MIN.
(0.80) MIN.

0.037
(0.95)

0.043
(1.10)

0.078
(2.00)

0.043
(1.10)

0.106
(2.70)
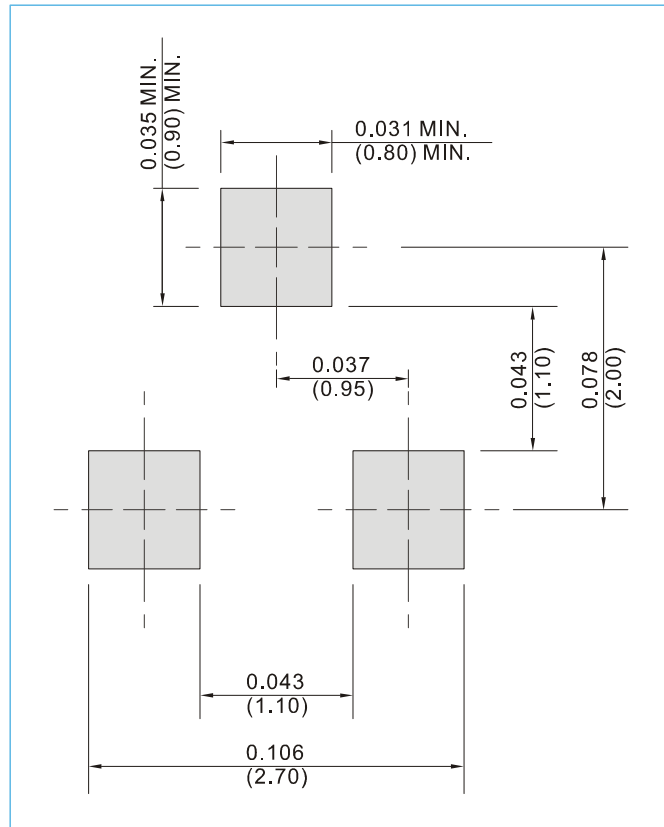
ORDER INFORMATION

• Packing information

T/R - 12K per 13" plastic Reel

T/R - 3K per 7" plastic Reel

Part No_packing code_Version

BAW56-AU_R1_000A1

BAW56-AU_R2_000A1

For example :

RB500V-40_R2_00001

Part No.

- ● Serial number
- ● Version code means HF
- ● Packing size code means 13"
- ● Packing type means T/R
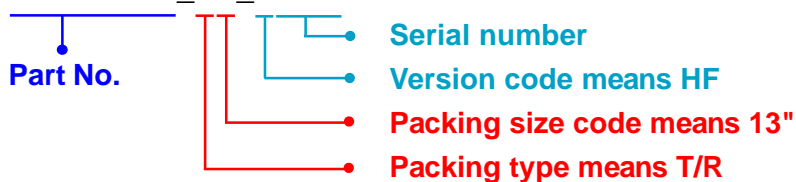
Packing Code XX					Version Code XXXXX		
Packing type	1st Code	Packing size code	2nd Code	HF or RoHS	1st Code	2nd~5th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (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			

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