

BAS116-AU/BAW156-AU/BAV170-AU/BAV199-AU

SURFACE MOUNT, LOW LEAKAGE SWITCHING DIODES

VOLTAGE

100 Volts

POWER

250mWatts

SOT-23

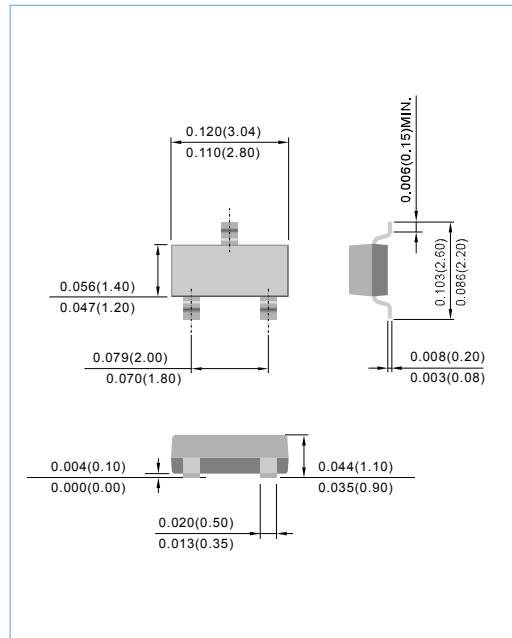
Unit : inch(mm)

FEATURES

- Surface mount package ideally suited for automatic insertion.
- Very low leakage current. 2pA typical at VR=75V.
- Low capacitance. 2pF max at VR=0V, f=1MHz
- Acquire quality system certificate : TS16949
- AEC-Q101 qualified
- Lead free in comply with EU RoHS 2002/95/EC directives.
- 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: 0.0084 grams
- Marking: BAS116-AU: PA,BAW156-AU:P4,BAV170-AU:P3,BAV199-AU:PB



ABSOLUTE RATINGS (each diode)

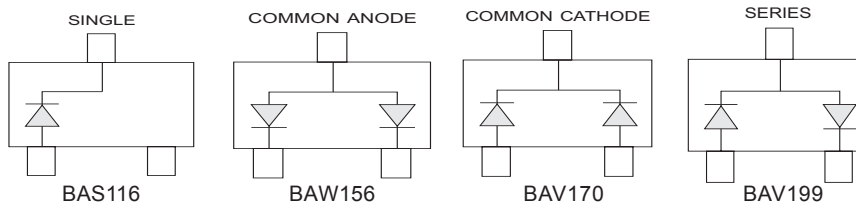
PARAMETER	Symbol	Value	Units
Reverse Voltage	V_R	75	V
Peak Reverse Voltage	V_{RM}	100	V
Continuous Forward Current	I_F	0.2	A
Non-repetitive Peak Forward Surge Current at $t=1.0\mu s$	I_{FSM}	4.0	A

THERMAL CHARACTERISTICS

PARAMETER	Symbol	Value	Units
Power Dissipation (Note 1)	P_{TOT}	250	mW
Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$	500	°C/W
Junction Temperature	T_J	-55 to 150	°C
Storage Temperature	T_{STG}	-55 to 150	°C

NOTE:

1. FR-4 Board = 70 x 60 x 1mm.



BAS116-AU/BAW156-AU/BAV170-AU/BAV199-AU

ELECTRICAL CHARACTERISTICS (each diode) (TA=25°C, unless otherwise noted)

PARAMETER	Symbol	Test Condition	MIN.	TYP.	MAX.	Units
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R=100 \mu A$	75	-	-	V
Reverse Current	I_R	$V_R=75 V$ $V_R=75 V, T_J=150 ^\circ C$	- -	0.002 8.0	5 80	nA
Forward Voltage	V_F	$I_F=1 mA$ $I_F=10 mA$ $I_F=50 mA$ $I_F=150 mA$	- - - -	- - - -	0.9 1.0 1.1 1.25	V
Total Capacitance	C_j	$V_R=0 V, f=1 MHz$	-	-	2.0	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=10 mA, R_L=100 \Omega$	-	-	3.0	us

CHARACTERISTIC CURVES (each diode)

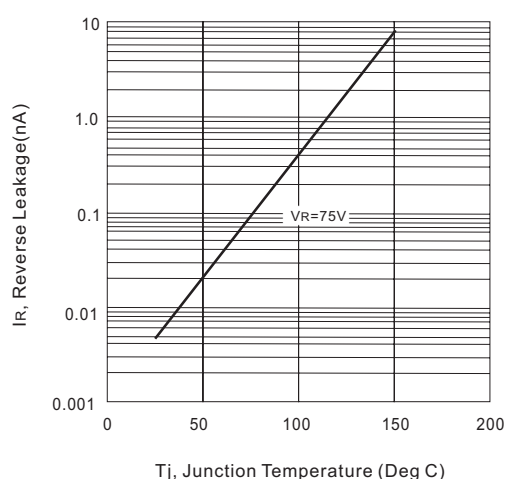


Fig. 1-Reverse Leakage vs. Junction Temperature

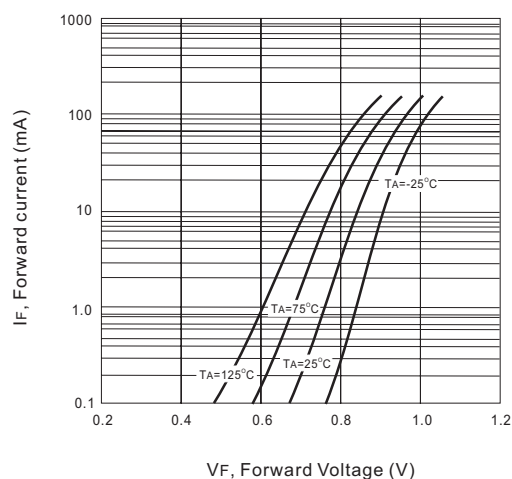


Fig. 2-Forward Current vs. Forward Voltage

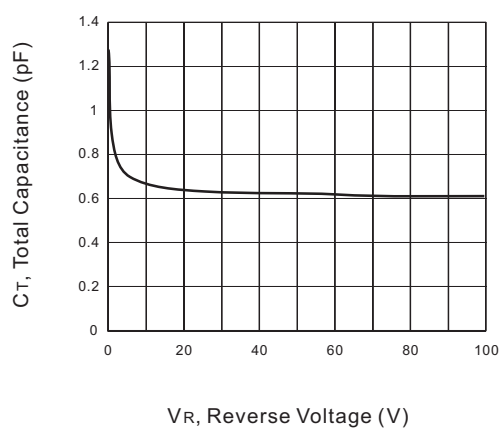
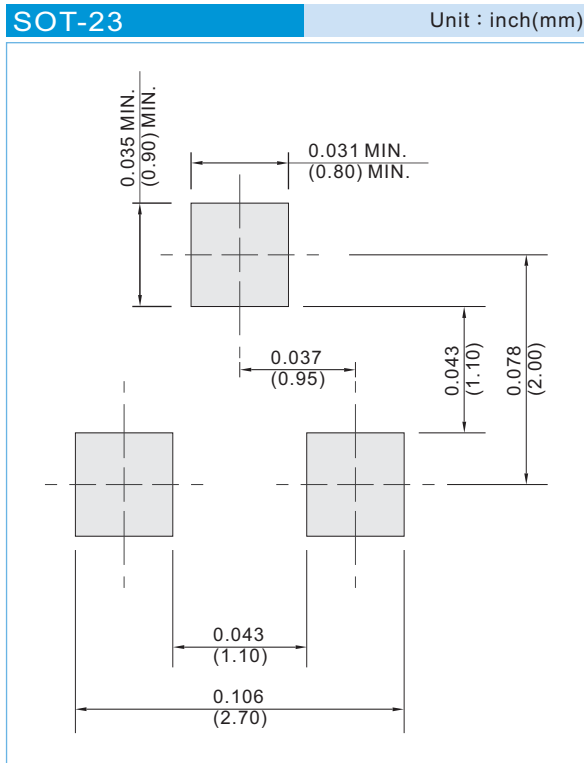


Fig. 3- Total capacitance vs. Reverse Voltage

BAS116-AU/BAW156-AU/BAV170-AU/BAV199-AU

MOUNTING PAD LAYOUT



ORDER INFORMATION

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

BAS116-AU/BAW156-AU/BAV170-AU/BAV199-AU

Part No_packing code_Version

BAS116-AU_R1_000A1

BAS116-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	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			



BAS116-AU/BAW156-AU/BAV170-AU/BAV199-AU

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Panjit:

[BAS116-AU_R1_100A1](#) [BAS116-AU_R2_000A1](#) [BAS116-AU_R2_100A1](#) [BAS116-AU_R1_000A1](#)