

BAV170W/BAV199W

SURFACE MOUNT, LOW LEAKAGE SWITCHING DIODE

VOLTAGE 100 Volt **POWER** 200mWatt

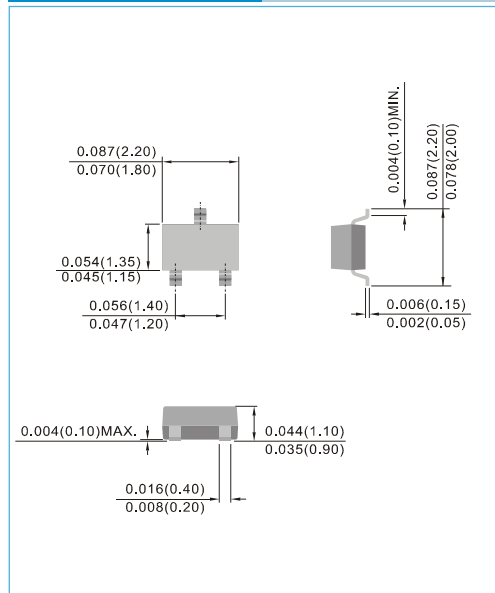
SOT-323 Unit : inch(mm)

FEATURES

- Surface mount package ideally suited for automatic insertion.
- Very low leakage current. 2pA typical at VR=75V.
- Low capacitance. 4pF max at VR=0V, f=1MHz
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

- Case : SOT-323 plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx weight : 0.00018 ounces, 0.005 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Parameter	Symbol	BAV170W	BAV199W	Unit
Marking code	-	P3	PB	-
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 $t=1\mu s$	I_{FSM}	4		A
Power dissipation (Note 1)	P_{TOT}	200		mW
Thermal resistance, junction to ambient (Note 1)	$R_{\theta JA}$	625		$^{\circ}C/W$
Junction temperature range	T_J	-55 to +150		$^{\circ}C$
Storage temperature range	T_{STG}	-55 to +150		$^{\circ}C$
Circuit figure	-	Common Cathode	Series	-

NOTE :

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

COMMON CATHODE

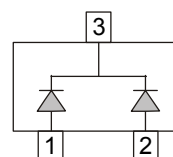


FIG.16(TOP VIEW)

SERIES

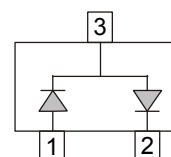


FIG.17(TOP VIEW)

BAV170W/BAV199W

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	$V_R=75V, T_J=150^\circ C$	-	0.0028	580	nA
Forward Voltage	V_F	$I_F=1mA$ $I_F=10mA$ $I_F=50mA$ $I_F=150mA$	-	-	0.9 1 1.1 1.25	V
Total Capacitance	C_T	$V_R=0V, f=1MHz$	-	-	2	pF
Reverse Recovery Time	T_{RR}	$I_F=I_R=10mA, R_L=100\Omega$	-	-	3	μs

CHARACTERISTIC CURVES (each diode)

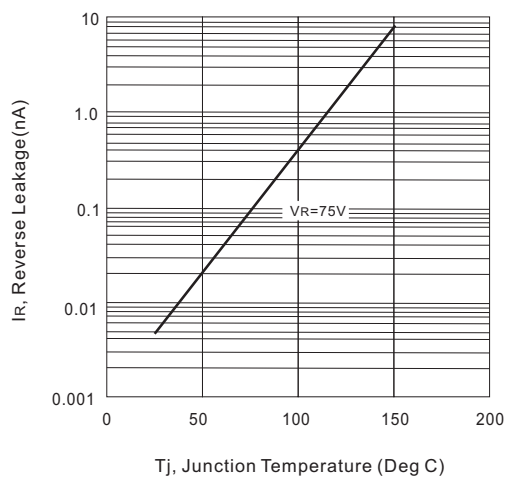


Fig. 1-Reverse Leakage vs. Junction Temperature

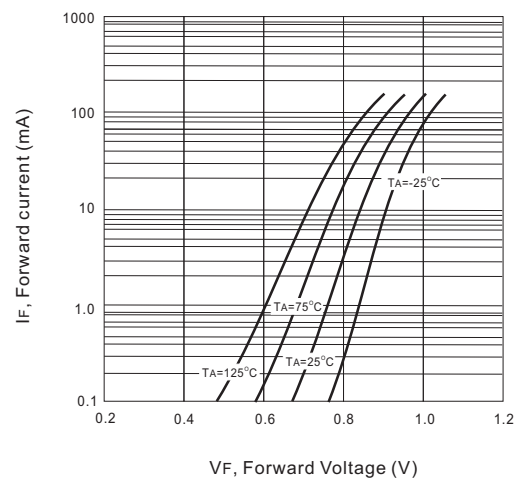


Fig. 2-Forward Current vs. Forward Voltage

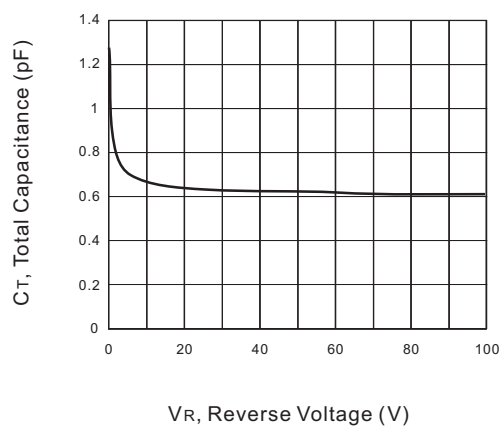


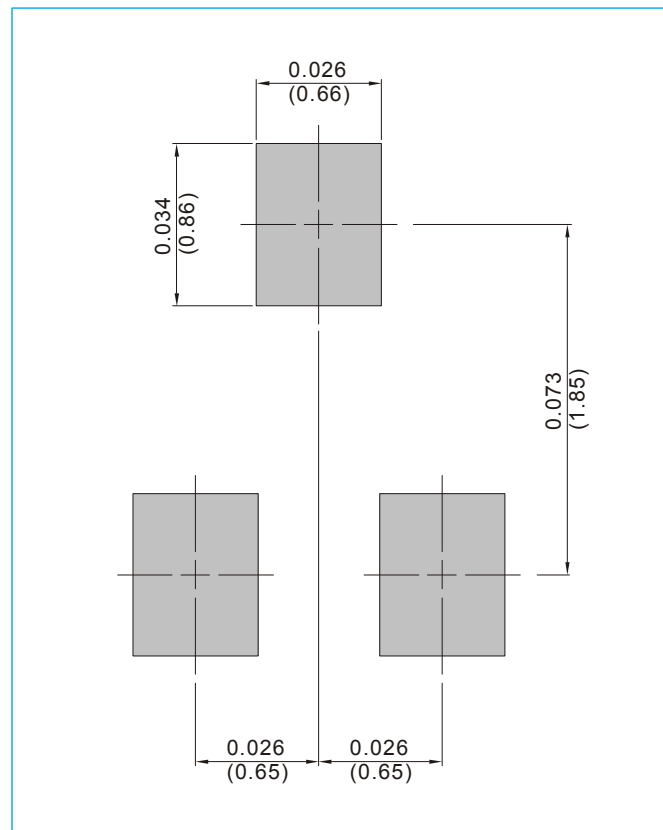
Fig. 3- Total capacitance vs. Reverse Voltage

BAV170W/BAV199W

MOUNTING PAD LAYOUT

SOT-323

Unit : inch(mm)



ORDER INFORMATION

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

BAV170W/BAV199W

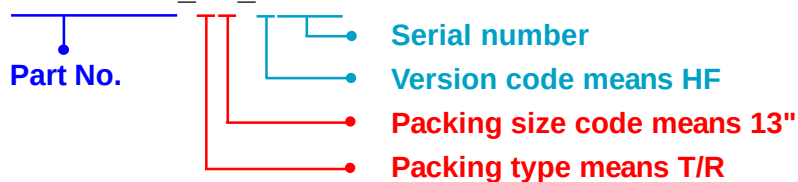
Part No_packing code_Version

BAV170W_R1_00001

BAV170W_R2_00001

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			



BAV170W/BAV199W

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.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.