

BAV170W/BAV199W

SURFACE MOUNT, LOW LEAKAGE SWITCHING DIODE

VOLTAGE 100 Volt **POWER** 200mWatt

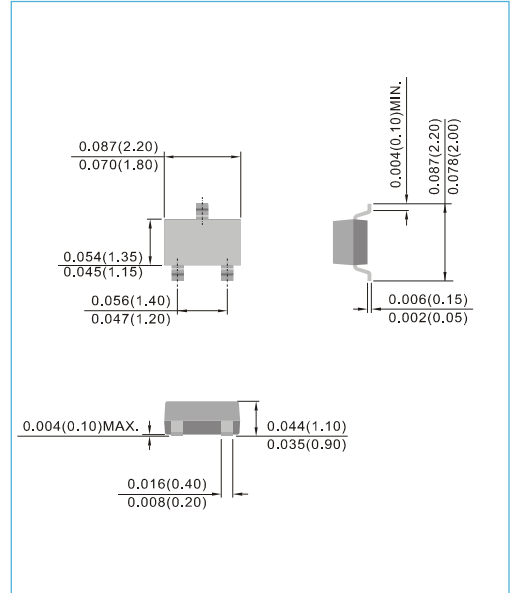
SOT-323 Unit : inch(mm)

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

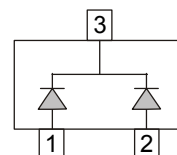


FIG. 16(TOP VIEW)

SERIES

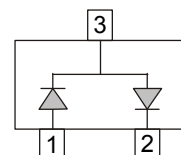


FIG. 17(TOP VIEW)

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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	$V_R=75V$ $V_R=75V, T_J=150^\circ C$	-	0.002 8	5 80	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)

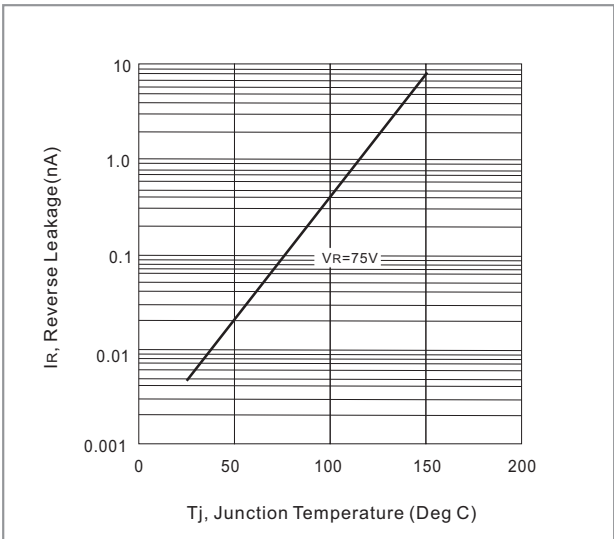


Fig. 1-Reverse Leakage vs. Junction Temperature

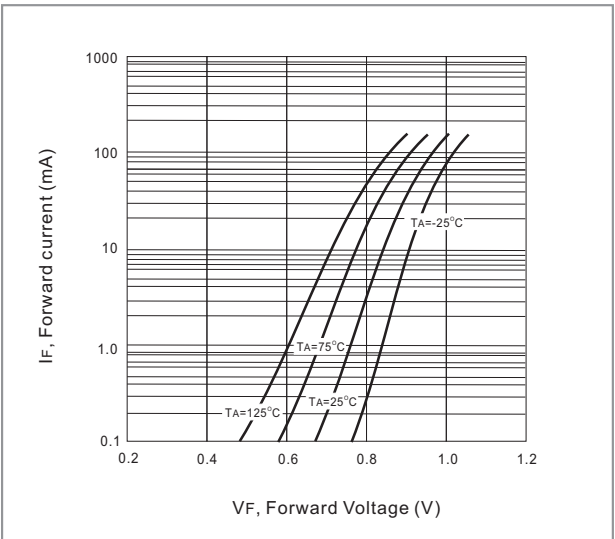


Fig. 2-Forward Current vs. Forward Voltage

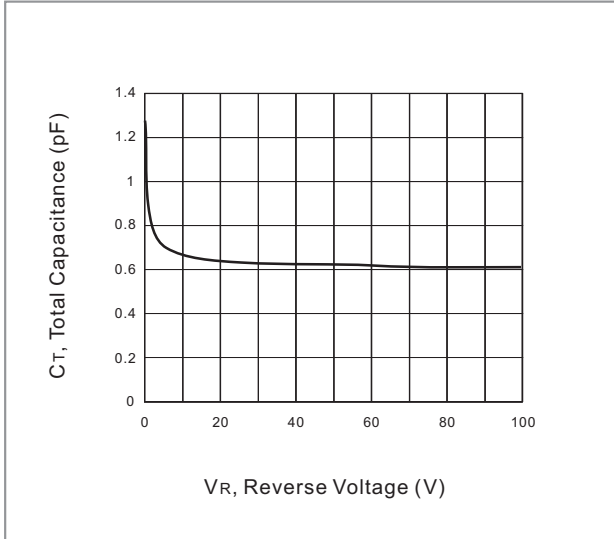


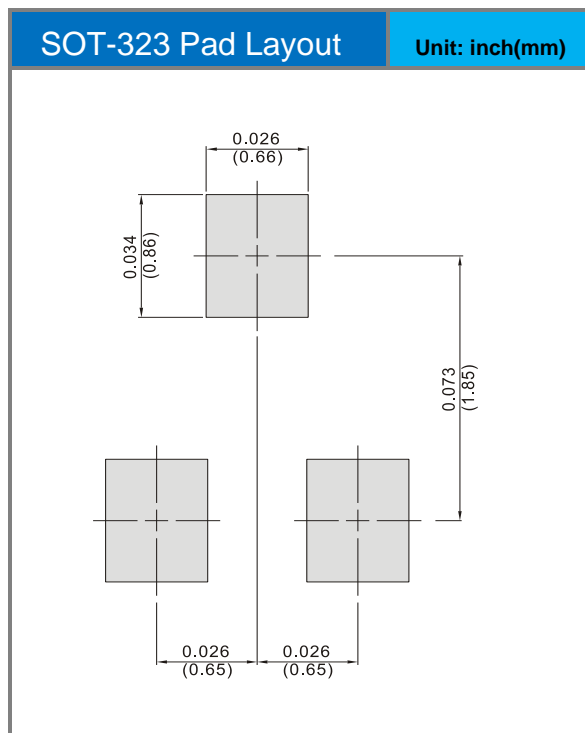
Fig. 3- Total capacitance vs. Reverse Voltage

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
BAV170W	SOT-323	3K pcs / 7" reel	P3
BAV170W	SOT-323	12K pcs / 13" reel	P3
BAV199W	SOT-323	3K pcs / 7" reel	PB
BAV199W	SOT-323	12K pcs / 13" reel	PB

Mounting Pad Layout



BAV170W/BAV199W

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