



BAV170W/BAV199W

SURFACE MOUNT, LOW LEAKAGE SWITCHING DIODE

VOLTAGE 100 Volt **POWER** 200mWatt

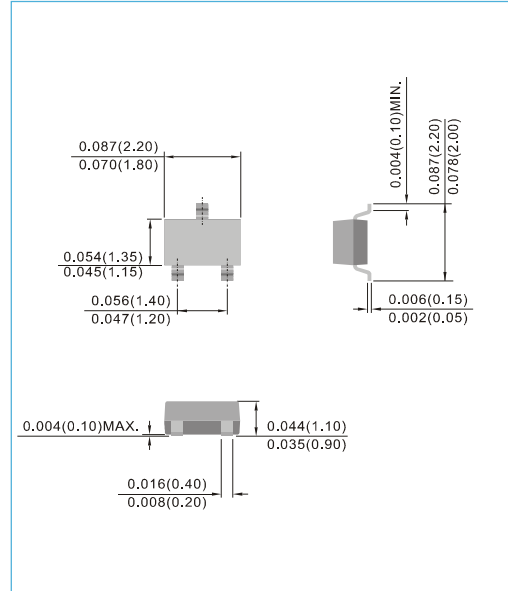
SOT-323 Unit : inch(mm)

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

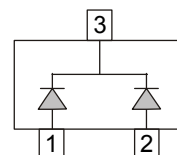


FIG. 16(TOP VIEW)

SERIES

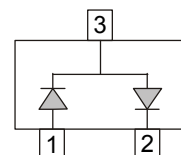


FIG. 17(TOP VIEW)

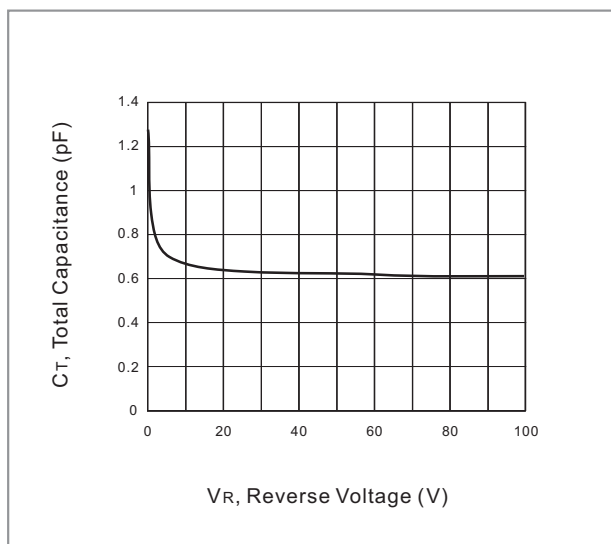
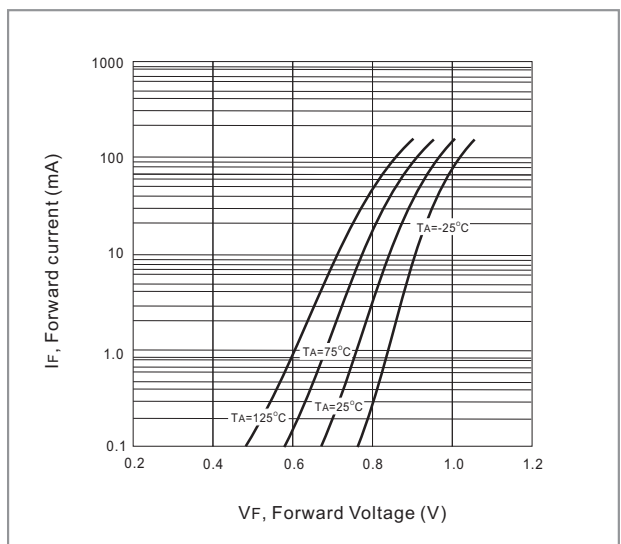
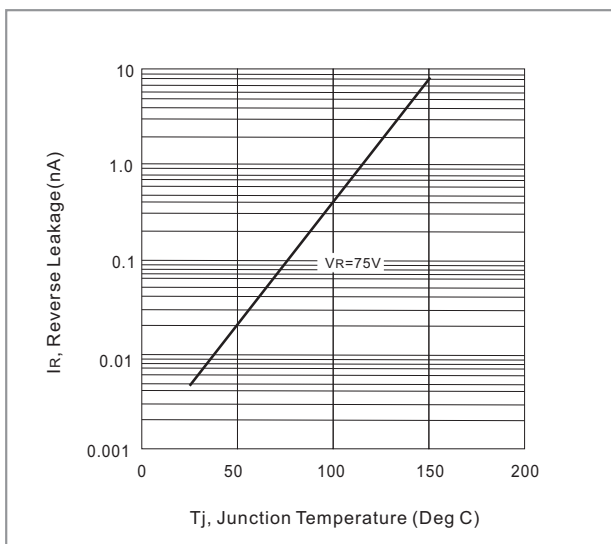


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ELECTRICAL CHARACTERISTICS (each diode) (TA=25°C, unless otherwise noted)

| 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)



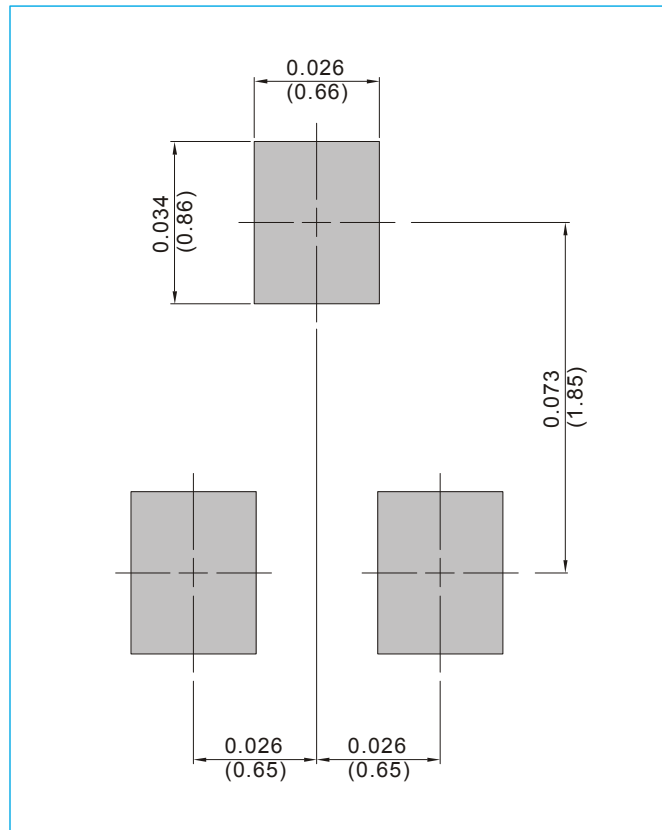


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MOUNTING PAD LAYOUT

SOT-323

Unit : inch(mm)



ORDER INFORMATION

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



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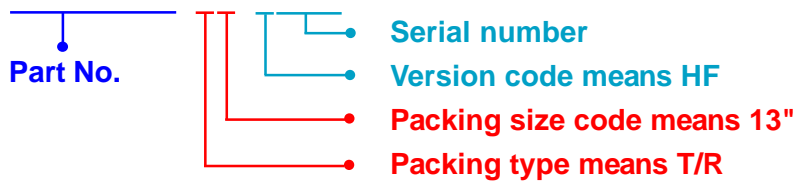
Part No_packing code_Version

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 | | | |



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