PANJIT SEMI CONDUCTOR

# BAW56W-AU,BAV70W-AU,BAV99W-AU,BAL99W-AU

## SURFACE MOUNT SWITCHING DIODES

| VOLTAGE | 100Volt | POWER | 200mWatt |
|---|---|---|---|

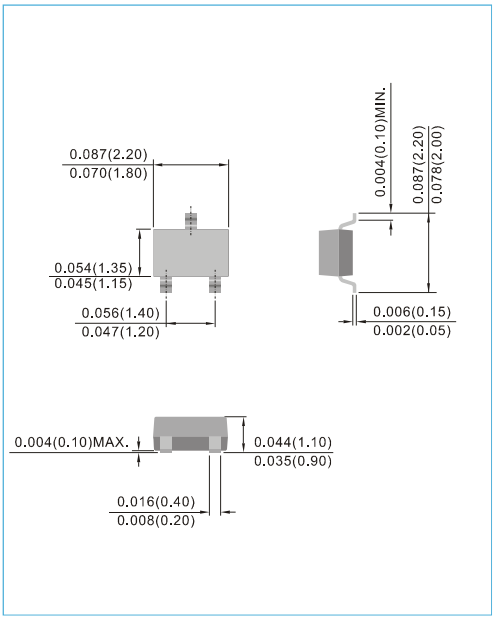
### FEATURES

- Fast switching speed.
- Surface mount package Ideally Suited for Automatic insertion
- Electrically Identical to Standard JEDEC
- High Conductance
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard
- AEC-Q101 qualified

### MECHANICAL DATA

- Case: SOT-323, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0002 ounces, 0.005 grams

**SOT-323** Unit : inch(mm)

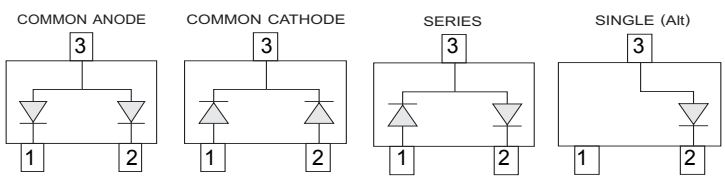



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ($T_A$=25°C unless otherwise noted)

| PARAMETER | SYMBOL | BAW56W-AU | BAV70W-AU | BAV99W-AU | BAL99W-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 >=50 Hz | $I_O$ | 150 | | | | mA |
| Peak Forward Surge Current,0.001ms | $I_{FSM}$ | 4.0 | | | | A |
| Power Dissipation Derate Above 25°C | $P_{TOT}$ | 200 | | | | mW |
| Maximum Forward Voltage | $V_F$ | 0.715 @ IF=0.001A<br>0.855 @ IF=0.01A<br>1.0 @ IF=0.05A<br>1.25 @ IF=0.15A | | | | V |
| Maximum DC Reverse Current at 25V<br>75V | $I_R$ | 0.03<br>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, Junction to Ambient(Notes 3)<br>Junction to Case (Notes 4) | $R_{\theta JA}$<br>$R_{\theta JC}$ | 625<br>250 | | | | °C / W |
| Junction Temperature Range | $T_J$ | -55 to +150 | | | | °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
3. Mountde on minimum pad.
4. Mounted on 48 $cm^2$ PCB.



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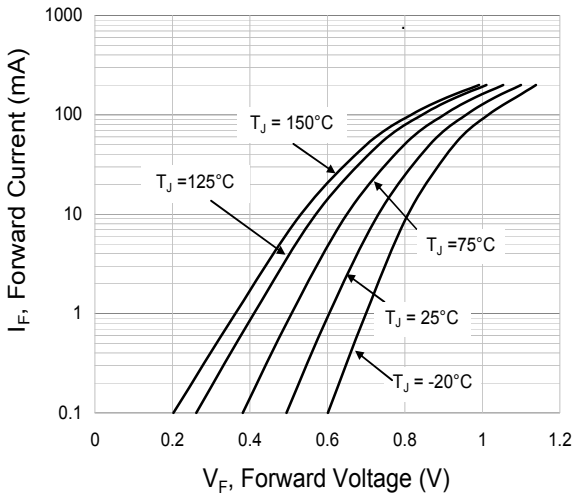



FIG. 1-TYPICAL FORWARD CHARACTERISTIC

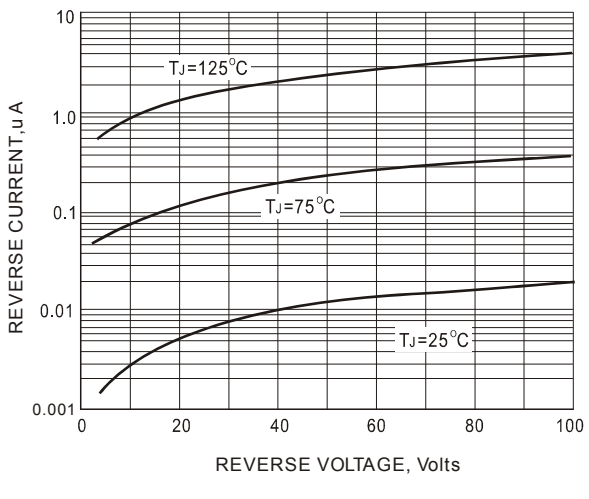



FIG. 2-TYPICAL REVERSE CHARACTERISTICS

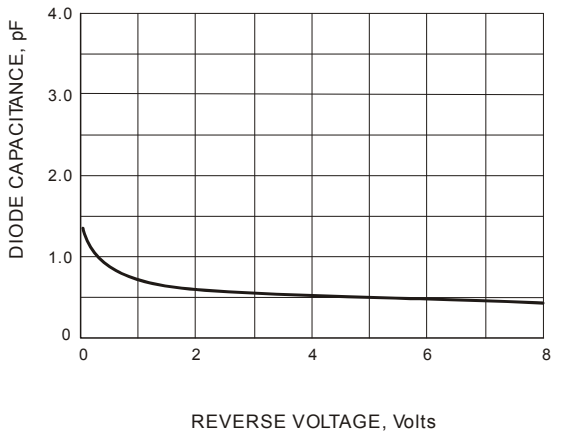



FIG. 3 TYPICAL JUNCTION CAPACITANCE

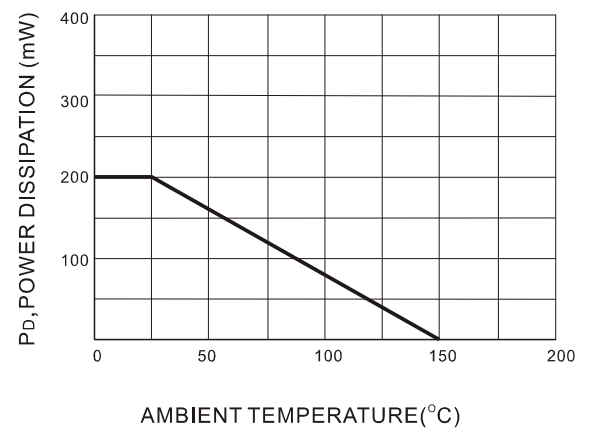



FIG. 4 POWER DERATING CURVE

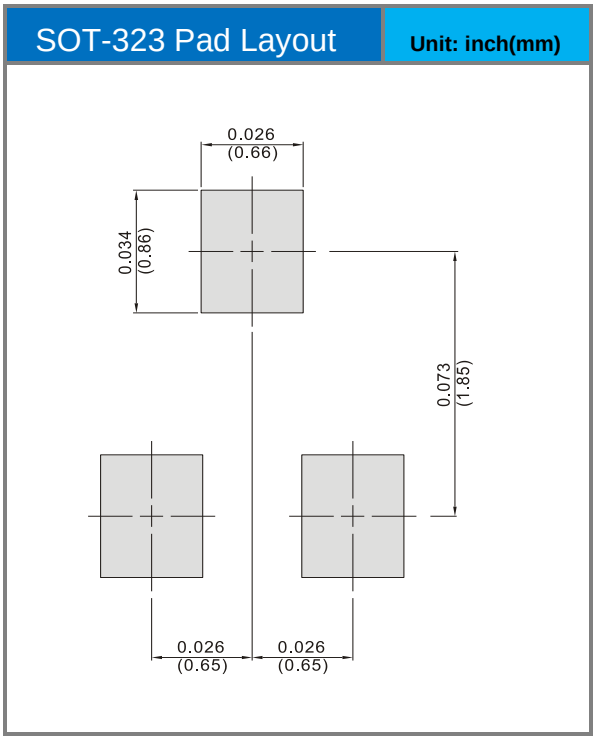
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## Product and Packing Information

| Part No. | Package Type | Packing Type | Marking |
|---|---|---|---|
| BAW56W-AU | SOT-323 | 3K pcs / 7” reel | JC |
| BAW56W-AU | SOT-323 | 12K pcs / 13” reel | JC |
| BAV70W-AU | SOT-323 | 3K pcs / 7” reel | JA |
| BAV70W-AU | SOT-323 | 12K pcs / 13” reel | JA |
| BAV99W-AU | SOT-323 | 3K pcs / 7” reel | JB |
| BAV99W-AU | SOT-323 | 12K pcs / 13” reel | JB |
| BAL99W-AU | SOT-323 | 3K pcs / 7” reel | JF |
| BAL99W-AU | SOT-323 | 12K pcs / 13” reel | JF |

## Mounting Pad Layout

SOT-323 Pad Layout  Unit: inch(mm)



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