



BAS16TW/BAW56DW/BAV70DW/BAV99S

SURFACE MOUNT SWITCHING DIODES

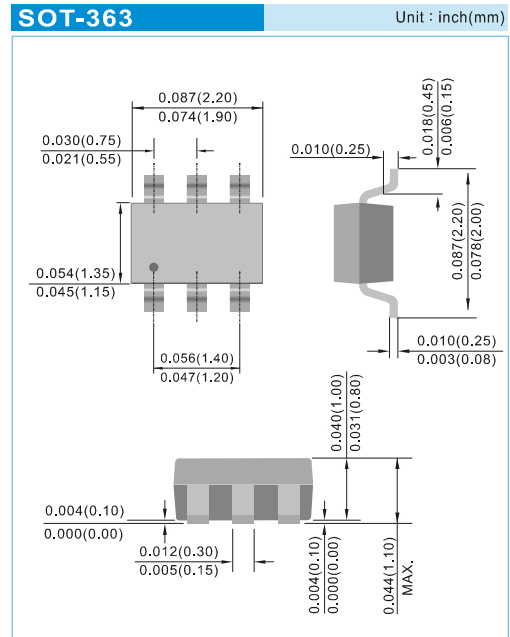
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|----------------|-----------------|--------------|-----------------|
| VOLTAGE | 100 Volt | POWER | 200mWatt |
|----------------|-----------------|--------------|-----------------|

FEATURES

- Fast switching speed.
- Surface mount package Ideally Suited for Automatic insertion
- High Conductance
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case: SOT-363, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0002 ounces, 0.006 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. For capacitive load, derate current by 20%.

| PARAMETER | SYMBOL | BAS16TW | BAW56DW | BAV70DW | BAV99S | UNITS |
|---|-----------------|--|---------|---------|--------|---------------|
| Marking Code | - | 16T | JC | JA | JB | - |
| Reverse Voltage | V_R | 75 | | | | V |
| Peak Reverse Voltage | V_{RM} | 100 | | | | V |
| Rectified Current (Average), Half Wave Rectification With Resistive Load and $f \geq 50\text{Hz}$ | I_O | 150 | | | | mA |
| Peak Forward Surge Current, 1 μs | I_{FSM} | 4 | | | | A |
| Power Dissipation Derate Above 25°C | P_{TOT} | 200 | | | | mW |
| Maximum Forward Voltage | V_F | 0.715@ $I_F=0.001\text{A}$ 0.855@ $I_F=0.01\text{A}$ 1@ $I_F=0.05\text{A}$ 1.25@ $I_F=0.15\text{A}$ | | | | V |
| Maximum DC Reverse Current at 25V 75V | I_R | 0.03 2.5 | | | | μA |
| Maximum Junction Capacitance (Note 1) | C_J | 1.5 | | | | pF |
| Maximum Reverse Recovery Time (Note 2) | T_{RR} | 4 | | | | ns |
| Typical Thermal Resistance | $R_{\theta JA}$ | 625 | | | | °C / W |
| Operating Junction and Storage Temperature Range | T_J, T_{STG} | -55 to +150 | | | | °C |
| Circuit Figure | | Fig.48 | Fig.51 | Fig.52 | Fig.32 | |

NOTE : 1. Reverse Bias Voltage = 0. $f=1\text{MHz}$
2. $I_F=10\text{mA}$ to $I_R=1\text{mA}$. $V_R=6\text{V}$. Load=100 Ω



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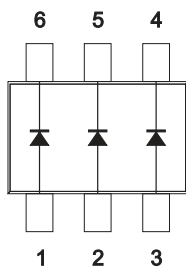
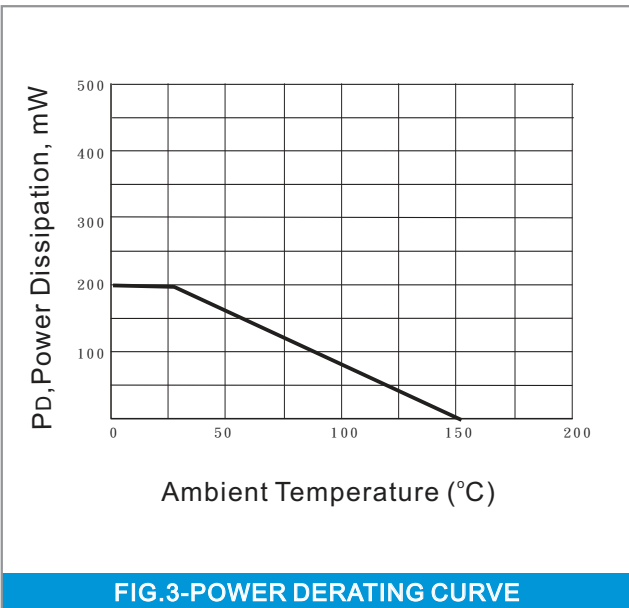
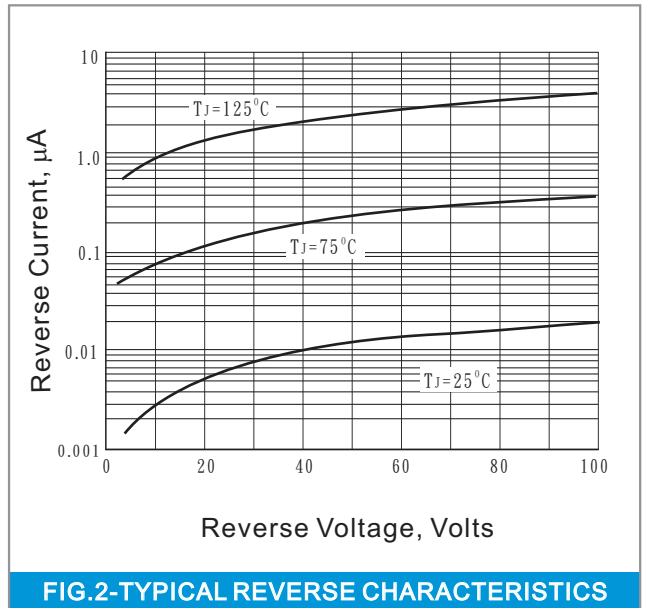
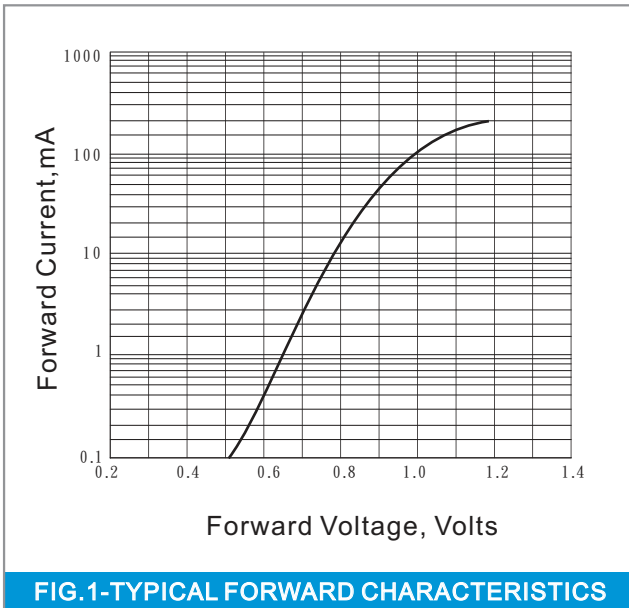


Fig.48

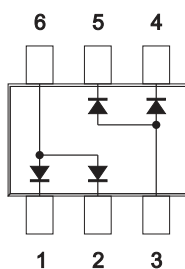


Fig.51

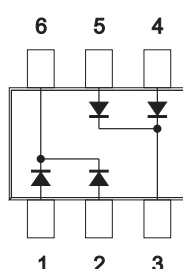


Fig.52

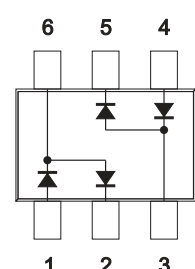
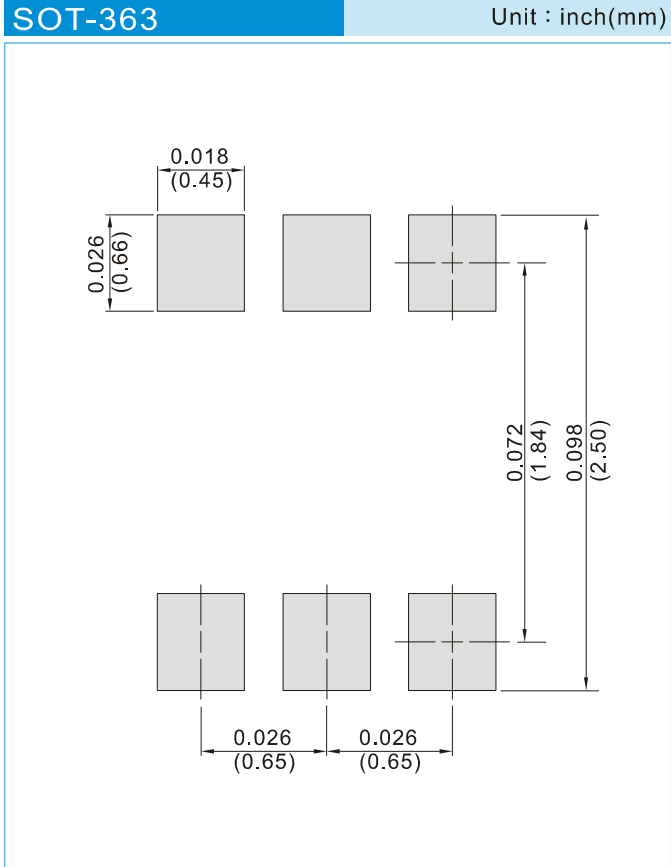


Fig.32



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
T/R - 10K per 13" plastic Reel
T/R - 3K per 7" plastic Reel



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Part No_packing code_Version

BAS16TW_R1_00001

BAS16TW_R2_00001

BAS16TW_S1_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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