



# BAS100ATB6

## SURFACE MOUNT DUAL ISOLATED OPPOSING SILICON SCHOTTKY DIODES

**VOLTAGE** 100 Volt

### FEATURES

- Smallest 100V Dual, isolated Schottky diode currently available
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### MECHANICAL DATA

- Case : SOT-563, Plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Apporx. Weight : 0.0026 grams
- Marking : BW

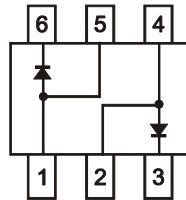
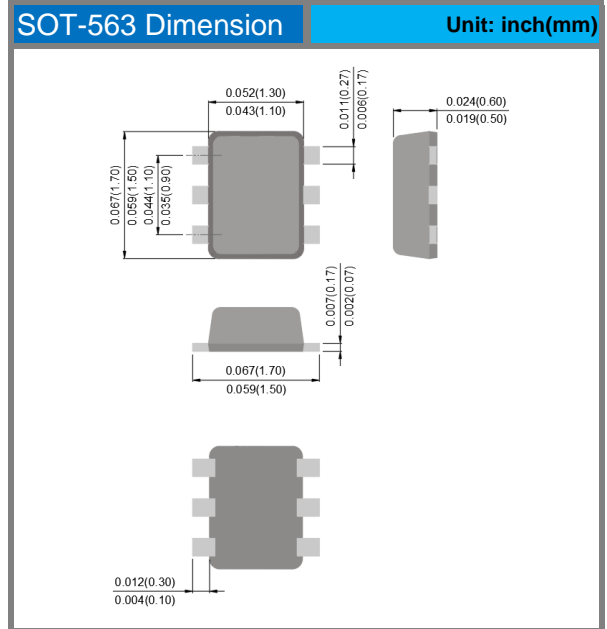


Fig.173(TOP VIEW)



### ABSOLUTE MAXIMUM RATINGS (TA=25°C unless otherwise noted)

| PARAMETER   | SYMBOL          | VALUE       | UNITS |
|---|-----------------|-------------|-------|
| Maximum Recurrent Peak Reverse Voltage  | $V_{RRM}$       | 100         | V     |
| Maximum RMS Voltage   | $V_{RMS}$       | 70          | V     |
| Maximum DC Blocking Voltage   | $V_R$           | 100         | V     |
| Maximum Average Forward Rectified Current   | $I_{F(AV)}$     | 0.4         | A     |
| Maximum Forward Rectified Current @ t=10s   | $I_{F(AV)}$     | 0.5         | A     |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load | $I_{FSM}$       | 5.5         | A     |
| Peak Forward Surge Current : 10ms single half sine-wave superimposed on rated load  | $I_{FSM}$       | 5           | A     |
| Typical Junction Capacitance ( $V_R=4V, f=1MHz$ )                                   | $C_J$           | 21          | pF    |
| Typical Thermal Resistance, Junction to Ambient (Note 1)                            | $R_{\theta JA}$ | 480         | °C/W  |
| Operating Junction Temperature and Storage Temperature Range                        | $T_J, T_{STG}$  | -55 to +150 | °C    |

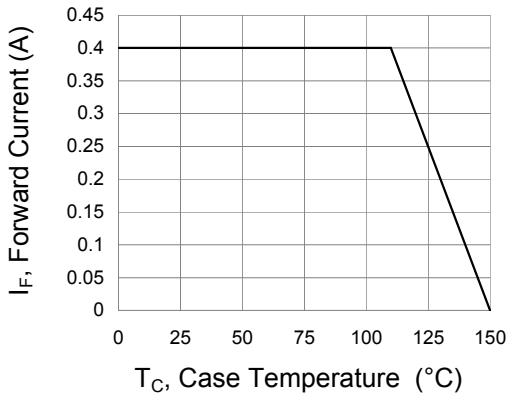
NOTE : 1. Mounted on an FR4 PCB, single-sided copper, mini pad.



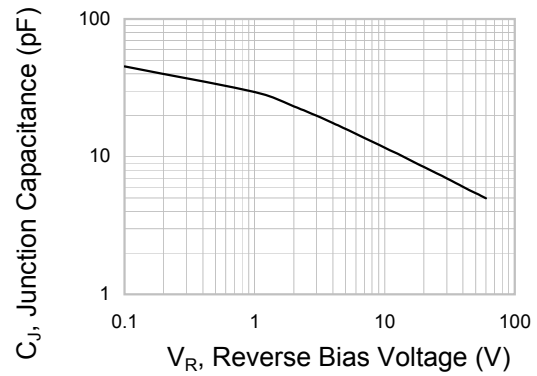
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## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

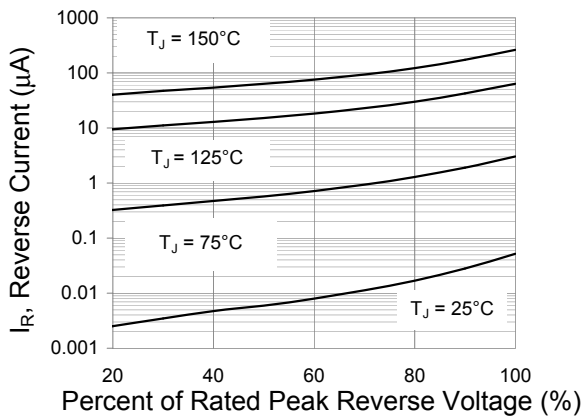
| PARAMETER                     | SYMBOL          | Test Condition                              | MIN. | TYP. | MAX. | UNITS |
|-------------------------------|-----------------|---|------|------|------|-------|
| Breakdown Voltage             | V <sub>BR</sub> | I <sub>R</sub> =200μA T <sub>J</sub> =25°C  | 100  | -    | -    | V     |
| Instantaneous Forward Voltage | V <sub>F</sub>  | I <sub>F</sub> =0.4A T <sub>J</sub> =25°C   | -    | 0.76 | 0.81 | V     |
|                               |                 | I <sub>F</sub> =0.5A T <sub>J</sub> =25°C   | -    | 0.8  | 0.85 | V     |
| Reverse Current               | I <sub>R</sub>  | V <sub>R</sub> =80 V T <sub>J</sub> =25°C   | -    | 20   | -    | nA    |
|                               |                 | V <sub>R</sub> =100 V T <sub>J</sub> =25°C  | -    | -    | 1    | μA    |
|                               |                 | V <sub>R</sub> =80 V T <sub>J</sub> =125°C  | -    | 65   | -    | μA    |
|                               |                 | V <sub>R</sub> =100 V T <sub>J</sub> =125°C | -    | -    | -    | μA    |



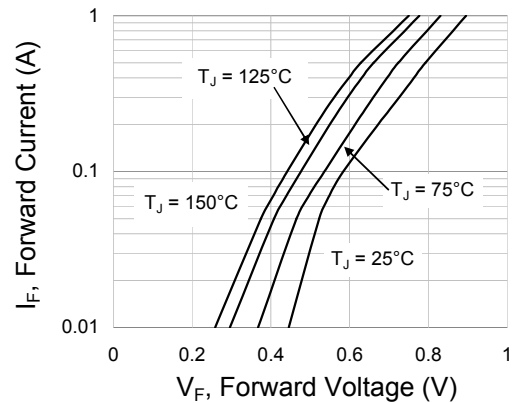
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**

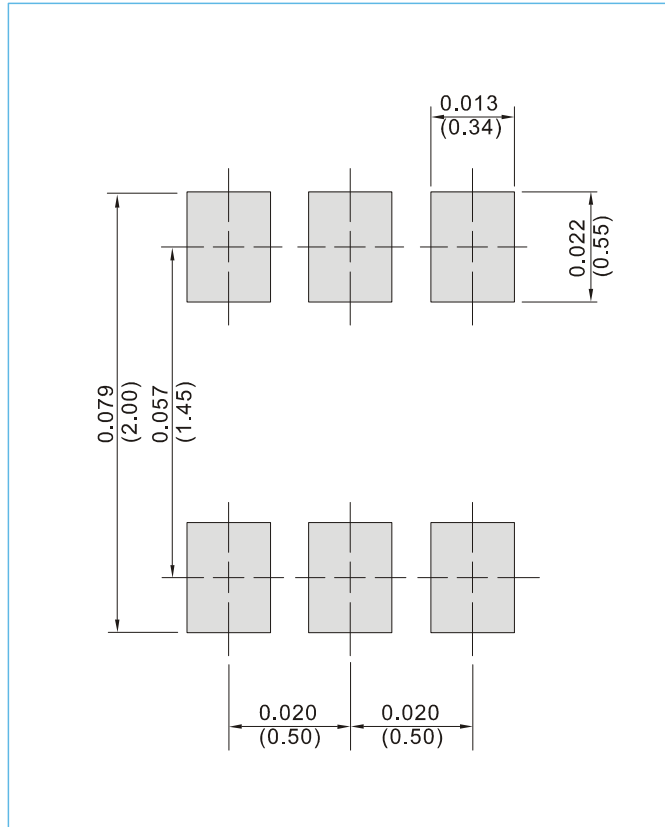


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## MOUNTING PAD LAYOUT

**SOT-563**

Unit : inch(mm)



## ORDER INFORMATION

- Packing information  
T/R - 4K per 7" plastic Reel  
T/R - 10K per 13" plastic Reel



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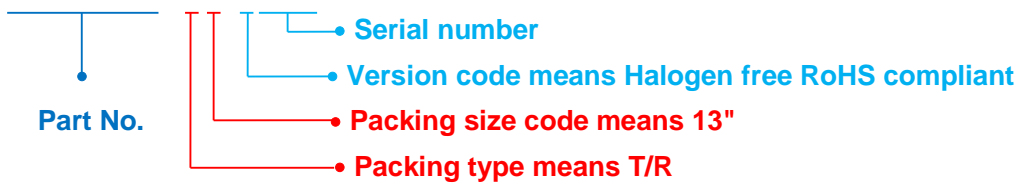
## Part No.\_packing code\_Version

BAS100ATB6\_R1\_00001

BAS100ATB6\_R2\_00001

For example :

**RB500V-40\_R2\_00001**



| Packing Code <b>XX</b>               |                      |                                  |                      | Version Code <b>X</b>       |                      | Serial number <b>XXXX</b>             |
|--------------------------------------|----------------------|----------------------------------|----------------------|-----------------------------|----------------------|---------------------------------------|
| Packing type                         | 1 <sup>st</sup> Code | Packing size code                | 2 <sup>nd</sup> Code | HSF Level                   | 1 <sup>st</sup> Code | 2 <sup>nd</sup> ~5 <sup>th</sup> Code |
| Tape and Ammunition Box (T/B)        | <b>A</b>             | N/A                              | <b>0</b>             | Halogen free RoHS compliant | <b>0</b>             | serial number                         |
| Tape and Reel (T/R)                  | <b>R</b>             | 7"                               | <b>1</b>             | RoHS compliant              | <b>1</b>             | serial number                         |
| Bulk Packing (B/P)                   | <b>B</b>             | 13"                              | <b>2</b>             |                             |                      |                                       |
| Tube Packing (T/P)                   | <b>T</b>             | 26mm                             | <b>X</b>             |                             |                      |                                       |
| Tape and Reel (Right Oriented) (TRR) | <b>S</b>             | 52mm                             | <b>Y</b>             |                             |                      |                                       |
| Tape and Reel (Left Oriented) (TRL)  | <b>L</b>             | PANASERT T/B CATHODE UP (PBCU)   | <b>U</b>             |                             |                      |                                       |
| FORMING                              | <b>F</b>             | PANASERT T/B CATHODE DOWN (PBCD) | <b>D</b>             |                             |                      |                                       |



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