



# BAS70WS-AU

## SURFACE MOUNT SCHOTTKY DIODES

|                |             |                |              |
|----------------|-------------|----------------|--------------|
| <b>Voltage</b> | <b>70 V</b> | <b>Current</b> | <b>0.2 A</b> |
|----------------|-------------|----------------|--------------|

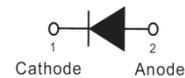
### Features

- Low forward voltage drop
- Deal for automated placement
- Low power loss, high efficiency
- High surge current capability
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard
- AEC-Q101 qualified

### Mechanical Data

- Case: SOD-323 Package
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Approx. Weight: 0.00014 ounces, 0.0041 grams

### SOD-323



### Maximum Ratings and Thermal Characteristics ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

| PARAMETER  | SYMBOL                | LIMIT   | UNITS              |
|--|-----------------------|---------|--------------------|
| Maximum Repetitive Peak Reverse Voltage  | $V_{RRM}$             | 70      | V                  |
| Maximum Rms Voltage  | $V_{RMS}$             | 49      | V                  |
| Maximum Dc Blocking Voltage  | $V_{DC}$              | 70      | V                  |
| Maximum Average Forward Current  | $I_{F(AV)}$           | 0.2     | A                  |
| Peak Forward Surge Current: 1 s Single Half Sine-Wave Superimposed On Rated Load | $I_{FSM}$             | 0.6     | A                  |
| Typical Junction Capacitance<br>Measured at 1 MHz And Applied $V_R = 0$ V        | $C_J$                 | 2       | pF                 |
| Typical Thermal Resistance   | $R_{\theta JA}^{(1)}$ | 650     | $^\circ\text{C/W}$ |
| Operating Junction Temperature Range   | $T_J$                 | -55~150 | $^\circ\text{C}$   |
| Storage Temperature Range  | $T_{STG}$             | -55~150 | $^\circ\text{C}$   |



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### Electrical Characteristics ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

| PARAMETER       | SYMBOL      | TEST CONDITION                                | MIN. | TYP. | MAX. | UNITS |
|-----------------|-------------|---|------|------|------|-------|
| Forward Voltage | $V_F$       | $I_F = 1\text{ mA}, T_J = 25^\circ\text{C}$   | -    | -    | 0.41 | V     |
|                 |             | $I_F = 10\text{ mA}, T_J = 25^\circ\text{C}$  | -    | -    | 0.75 |       |
|                 |             | $I_F = 15\text{ mA}, T_J = 25^\circ\text{C}$  | -    | -    | 0.9  |       |
|                 |             | $I_F = 1\text{ mA}, T_J = 125^\circ\text{C}$  | -    | 0.25 | -    |       |
|                 |             | $I_F = 10\text{ mA}, T_J = 125^\circ\text{C}$ | -    | 0.55 | -    |       |
|                 |             | $I_F = 15\text{ mA}, T_J = 125^\circ\text{C}$ | -    | 0.59 | -    |       |
| Reverse Current | $I_R^{(2)}$ | $V_R = 50\text{ V}, T_J = 25^\circ\text{C}$   | -    | -    | 0.1  | uA    |
|                 |             | $V_R = 70\text{ V}, T_J = 25^\circ\text{C}$   | -    | -    | 1    |       |
|                 |             | $V_R = 70\text{ V}, T_J = 125^\circ\text{C}$  | -    | 45   | -    |       |

**NOTES:**

1. Mounted on a FR4 PCB, single-sided copper, mini pad.
2. Short duration pulse test used to minimize self-heating effect



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## TYPICAL CHARACTERISTIC CURVES

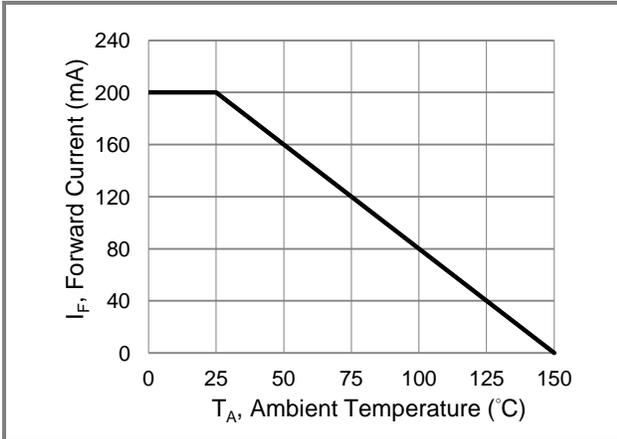


Fig.1 Forward Current Derating Curve

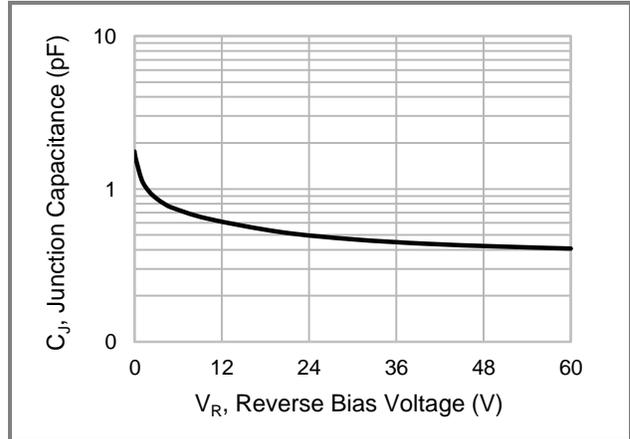


Fig.2 Typical Junction Capacitance

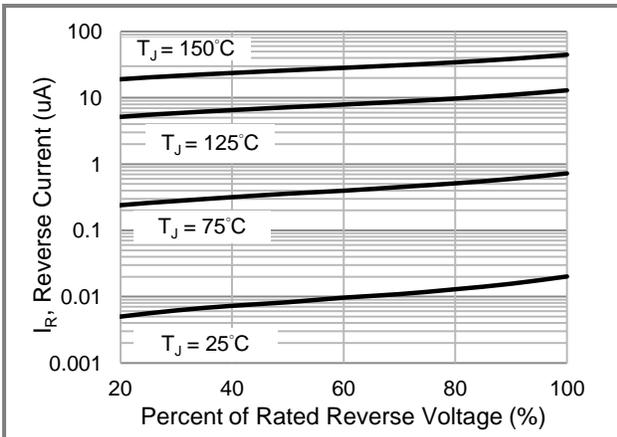


Fig.3 Typical Reverse Characteristics

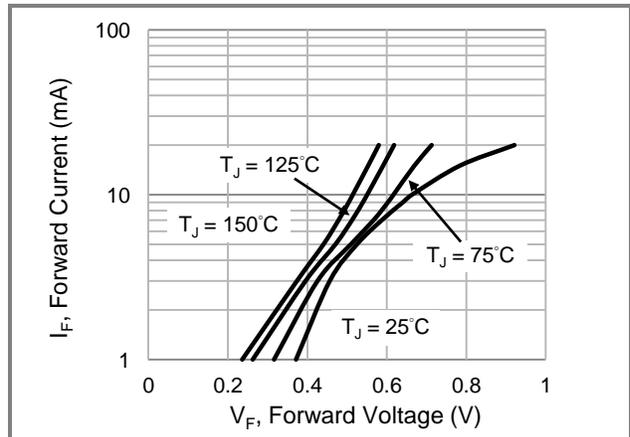


Fig.4 Typical Forward Characteristics

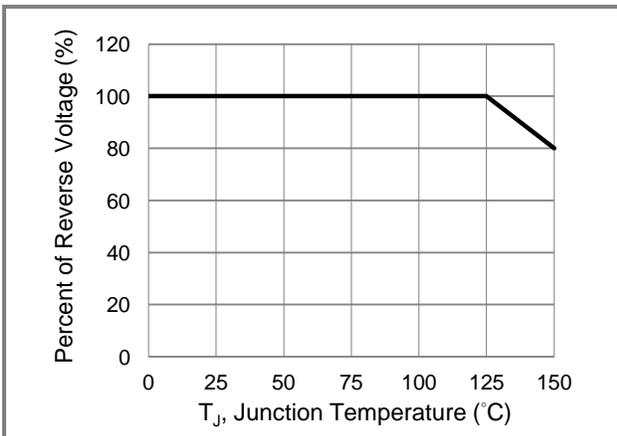


Fig.5 Operating Temperature Derating Curve

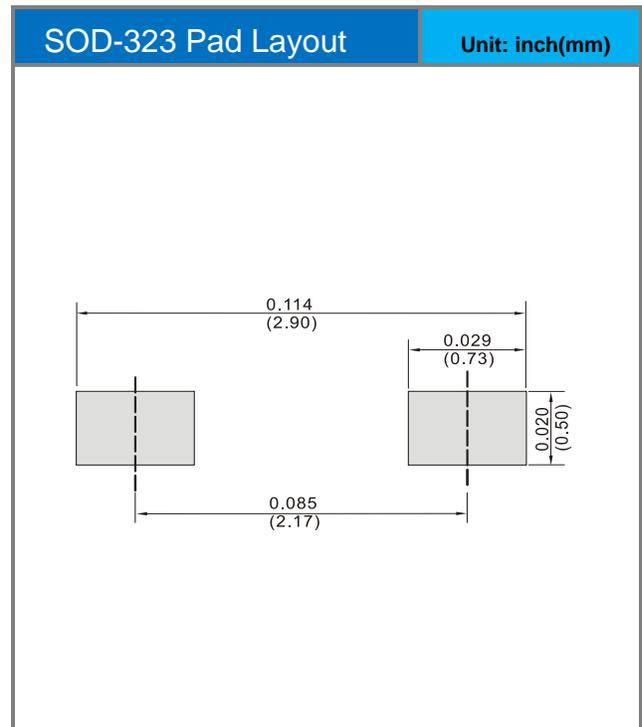
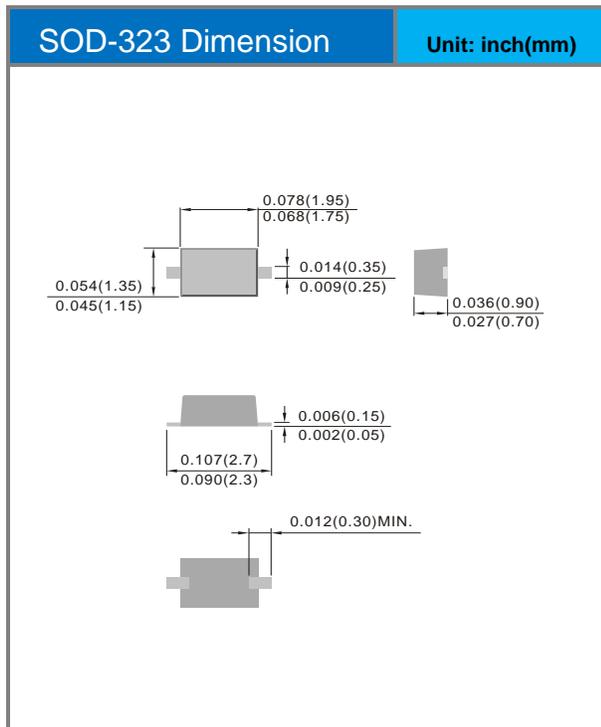


# BAS70WS-AU

## Part No Packing Code Version

| Part No Packing Code | Package Type | Packing Type | Marking | Version      |
|----------------------|--------------|--------------|---------|--------------|
| BAS70WS-AU_R1_000A1  | SOD-323      | 5K / 7" Reel | A70     | Halogen free |

## Packaging Information & Mounting Pad Layout





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