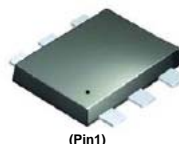


BAS70SV

70 V Dual-Schottky Barrier Diodes

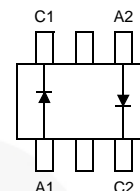
Features

- Low Forward-Voltage Drop
- Low Capacitance
- Low Leakage Current
- Fast Switching
- Ultra-Small Surface-Mount Package
- Lead Free by Design / RoHS Compliant
- Green Compound
- 0.6mm Maximum Package Height



(Pin1)
SOT-563F

BAS70SV Marking : AD



ELECTRICAL SYMBOL

Note: Pinouts are symmetrical. Pin 1 & 4 are interchangeable.
The placement of the device in the carrier tape can be of either orientation.

Ordering Information

| Part Number | Marking | Package | Packing Method |
|-------------|---------|-------------|----------------|
| BAS70SV | AD | SOT-563F 6L | Tape and Reel |

Absolute Maximum Ratings

Stresses exceeding the absolute maximum ratings may damage the device. The device may not function or be operable above the recommended operating conditions and stressing the parts to these levels is not recommended. In addition, extended exposure to stresses above the recommended operating conditions may affect device reliability. The absolute maximum ratings are stress ratings only. Values are at $T_A = 25^\circ\text{C}$ unless otherwise noted.

| Symbol | Parameter | Value | Units |
|----------------|-----------------------------------------------------|-------------|------------------|
| V_{RRM} | Maximum Repetitive Reverse Voltage | 70 | V |
| $I_{F(AV)}$ | Average Rectified Forward Current | 70 | mA |
| I_{FSM} | Forward Surge Current (8.3mS Single Half Sine Wave) | 2.5 | A |
| T_J, T_{STG} | Operating Junction and Storage Temperature Range | -55 to +150 | $^\circ\text{C}$ |

Thermal Characteristics

| Symbol | Parameter | Value | Units |
|-----------------|--------------------------------------------------------|-------|---------------------------|
| P_D | Power Dissipation | 200 | mW |
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient ⁽¹⁾ | 625 | $^\circ\text{C}/\text{W}$ |

Note:

1. Device mounted on board compliant to JESD51-2 and JESD51-3 standards.

Electrical Characteristics

Values are at $T_A = 25^\circ\text{C}$ unless otherwise noted.

| Symbol | Parameter | Test Condition | Min. | Typ. | Max. | Units |
|----------|-----------------------|--------------------------------------------------|------|------|------|---------------|
| V_{BR} | Breakdown Voltage | $I_R = 100 \mu\text{A}$ | 70 | 93 | | V |
| I_R | Reverse Current | $V_R = 50 \text{ V}$ | | 0.02 | 0.10 | μA |
| | | $V_R = 70 \text{ V}$ | | | 2.5 | μA |
| V_F | Forward Voltage | $I_F = 1 \text{ mA}$ | | 365 | 410 | mV |
| | | $I_F = 15 \text{ mA}$ | | 855 | 1000 | mV |
| t_{rr} | Reverse-Recovery Time | $I_F = I_R = 10 \text{ mA}$, $I_{rr} = 0.1 I_R$ | | 1.55 | 8.00 | ns |
| Cap | Capacitance | $V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$ | | 1.62 | 3.00 | pF |



Typical Performance Characteristics

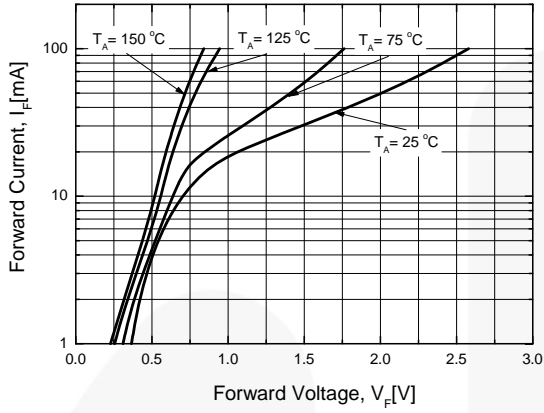


Figure 1. Forward Current Characteristics

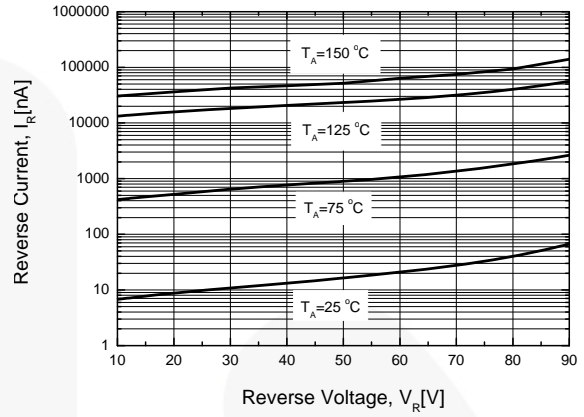


Figure 2. Reverse Leakage Current

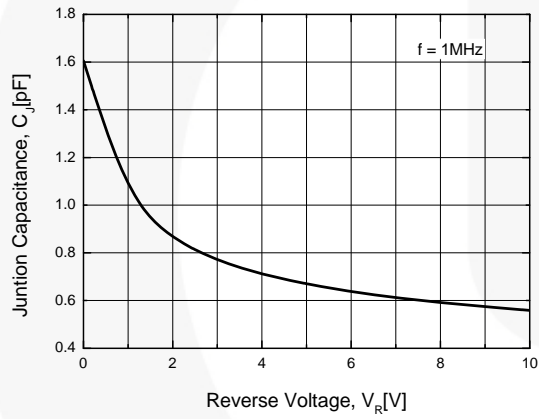


Figure 3. Junction Capacitance

Physical Dimensions

SOT-563F 6L

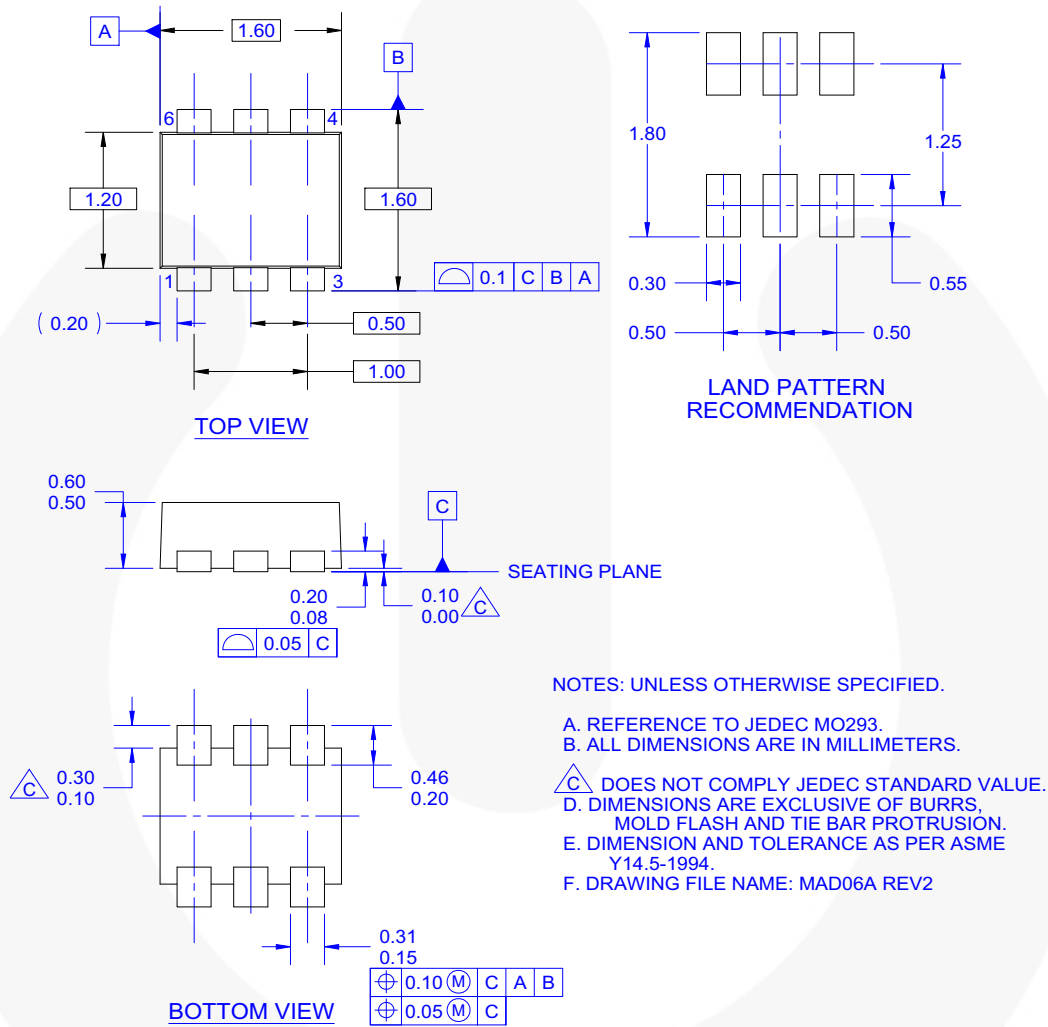


Figure 4. 6-LEAD, MO293, 1.2 MM WIDE, SOT563F, DUAL DAP (ACTIVE)

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http://www.fairchildsemi.com/packing_dwg/PKG-MAD06A_BK.pdf



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