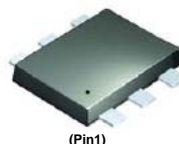


# BAS70SV

## 70 V Dual-Schottky Barrier Diodes

### Features

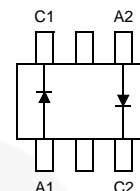
- Low Forward-Voltage Drop
- Low Capacitance
- Low Leakage Current
- Fast Switching
- Ultra-Small Surface-Mount Package
- Lead Free by Design / RoHS Compliant
- Green Compound
- 0.6mm Maximum Package Height



(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 <sup>(1)</sup>	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	$\mu\text{A}$
		$V_R = 70 \text{ V}$			2.5	$\mu\text{A}$
$V_F$	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

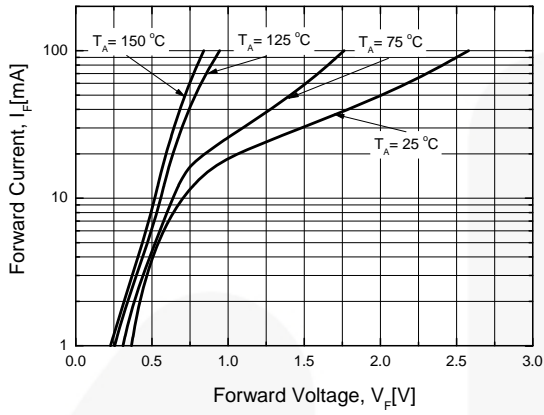


Figure 1. Forward Current Characteristics

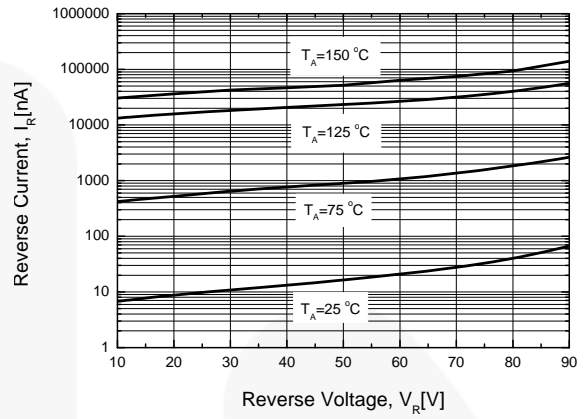


Figure 2. Reverse Leakage Current

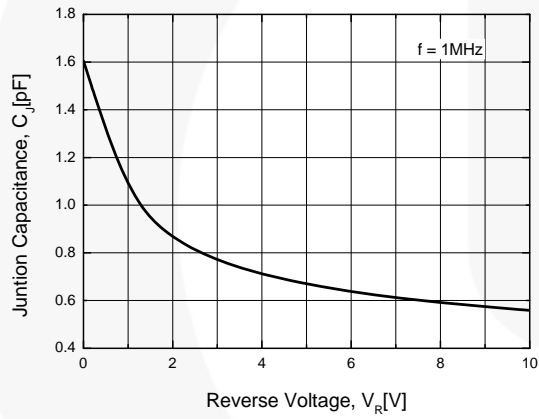
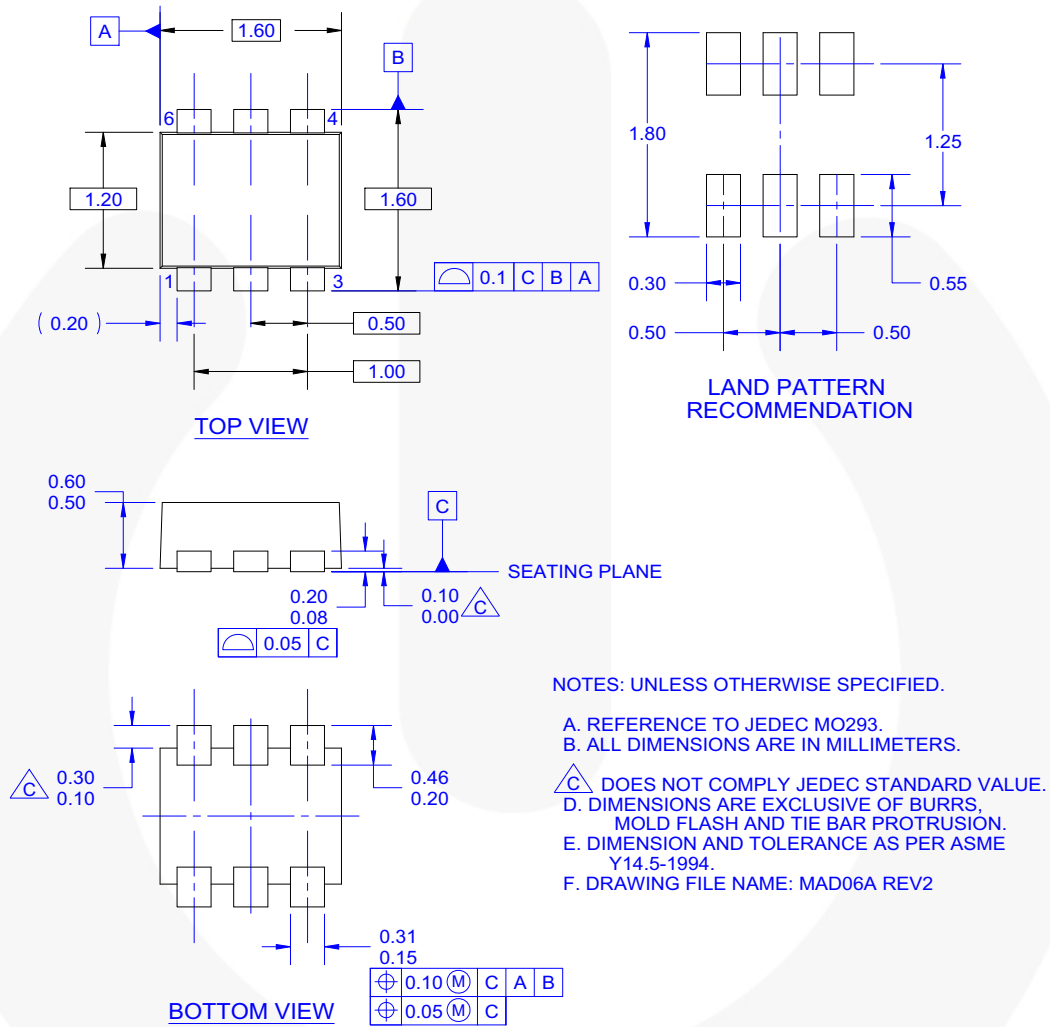


Figure 3. Junction Capacitance

## Physical Dimensions

### SOT-563F 6L



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

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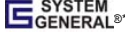



For current tape and reel specifications, visit Fairchild Semiconductor's online packaging area:

[http://www.fairchildsemi.com/packing\\_dwg/PKG-MAD06A\\_BK.pdf](http://www.fairchildsemi.com/packing_dwg/PKG-MAD06A_BK.pdf)



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