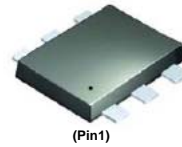


# BAS70SV

## 70V Dual Schottky Barrier Diodes

### Features

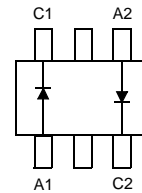
- Low Forward Voltage Drop
- Low Capacitance
- Low Leakage Current
- Fast Switching
- Ultra Small Surface Mount Package
- Lead Free By Design / RoHS Compliant
- Green Compound
- 0.6mm Max Package Height



(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.

### Absolute Maximum Ratings\* $T_A = 25^\circ\text{C}$ 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
$P_D$	Power Dissipation	200	mW
$T_J, T_{STG}$	Operating Junction and Storage Temperature Range	-55 to +150	$^\circ\text{C}$

\* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

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

Symbol	Parameter	Value	Units
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient *	625	$^\circ\text{C/W}$

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

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

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$BV_R$	Breakdown Voltage	$I_R = 100\mu\text{A}$	70	93		V
$I_R$	Reverse Current	$V_R = 50\text{V}$ $V_R = 70\text{V}$		0.02	0.1 2.5	$\mu\text{A}$ $\mu\text{A}$
$V_F$	Forward Voltage	$I_F = 1\text{mA}$ $I_F = 15\text{mA}$		365 855	410 1000	mV mV
$T_{rr}$	Reverse Recovery Time	$I_F = I_R = 10\text{mA}, I_{rr} = 0.1I_R$		1.55	8	nS
Cap	Capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$		1.62	3	pF

Typical Performance Characteristics

Figure 1. Forward Current Characteristics

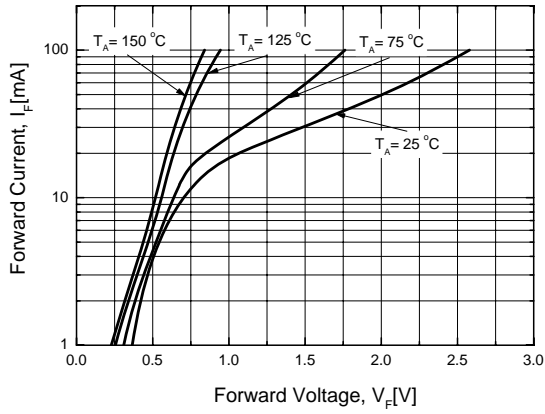


Figure 2. Reverse Leakage Current

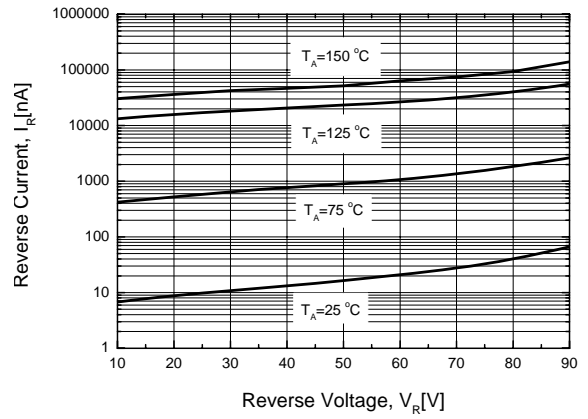
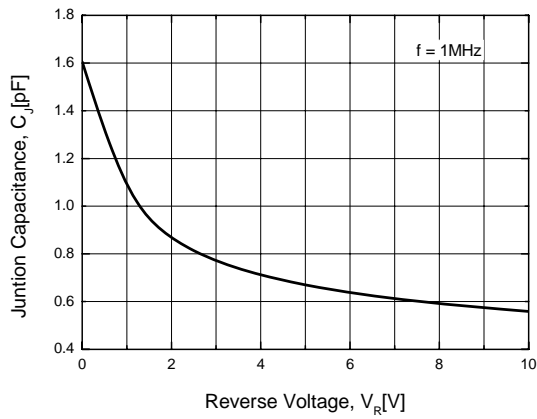
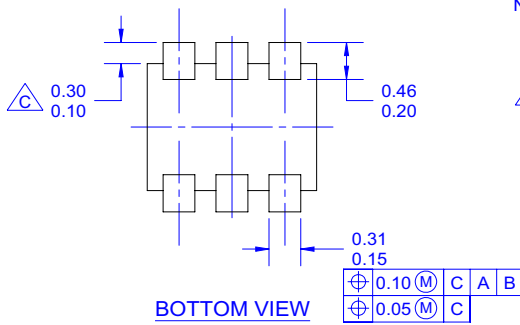
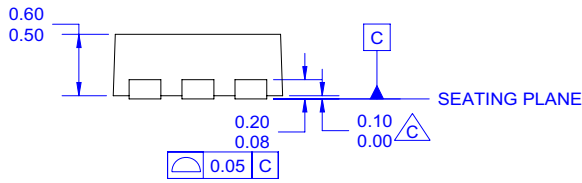
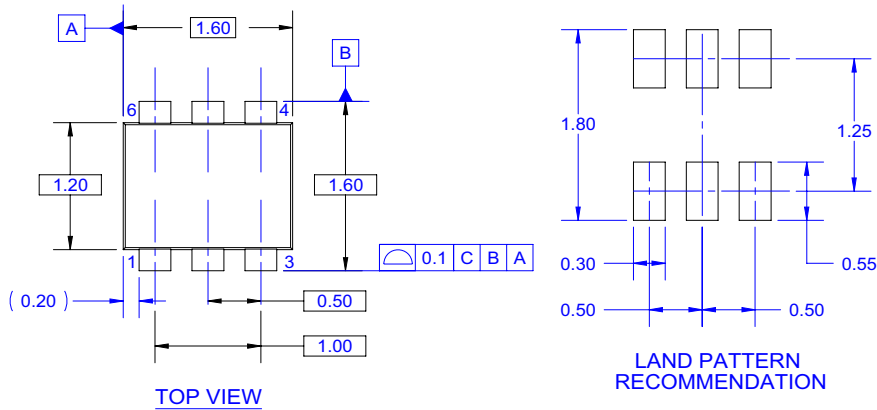


Figure 3. Junction Capacitance



**Physical Dimension**

**SOT-563F**



NOTES: UNLESS OTHERWISE SPECIFIED.

A. REFERENCE TO JEDEC MO293.  
B. ALL DIMENSIONS ARE IN MILLIMETERS.






△ DOES NOT COMPLY JEDEC STANDARD VALUE.  
D. DIMENSIONS ARE EXCLUSIVE OF BURRS,  
MOLD FLASH AND TIE BAR PROTRUSION.  
E. DIMENSION AND TOLERANCE AS PER ASME  
Y14.5-1994.  
F. DRAWING FILE NAME: MAD06A REV2

Dimensions in Millimeters



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