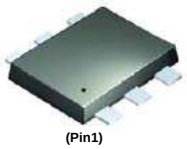
FAIRCHILD SEMICONDUCTOR®

February 2011

BAS70SV
70V Dual Schottky Barrier Diodes

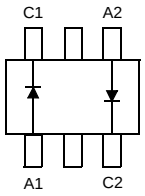
Features

- 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



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℃ 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	°C

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

Thermal Characteristics T_A = 25℃ unless otherwise noted

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

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

Electrical Characteristics T_A = 25℃ unless otherwise noted

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

Typical Performance Characteristics

Figure 1. Forward Current Characteristics

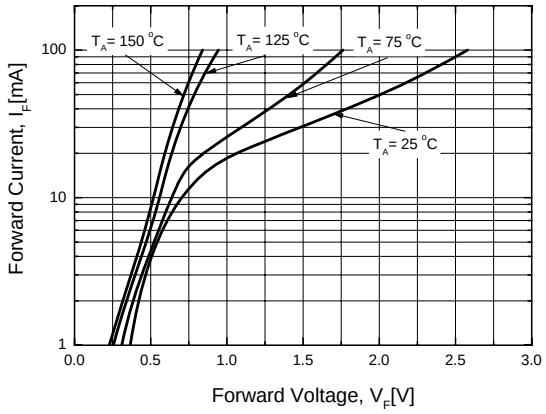


Figure 2. Reverse Leakage Current

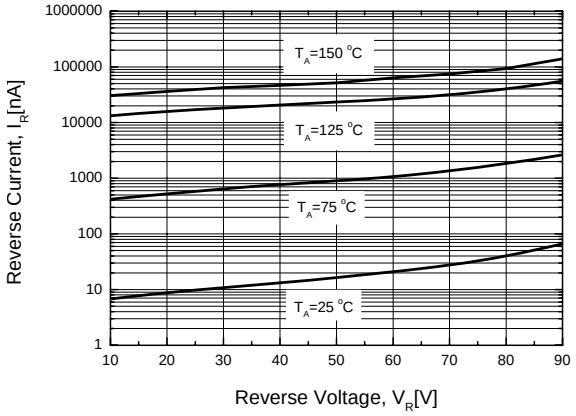
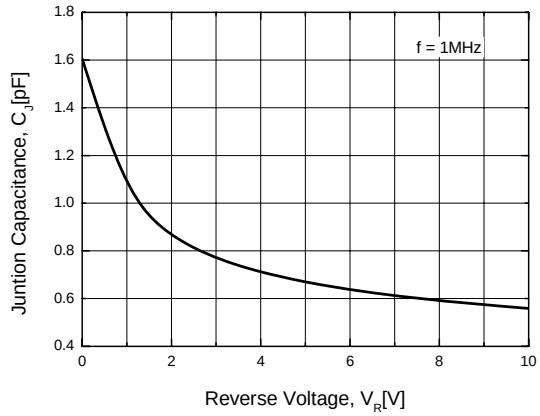
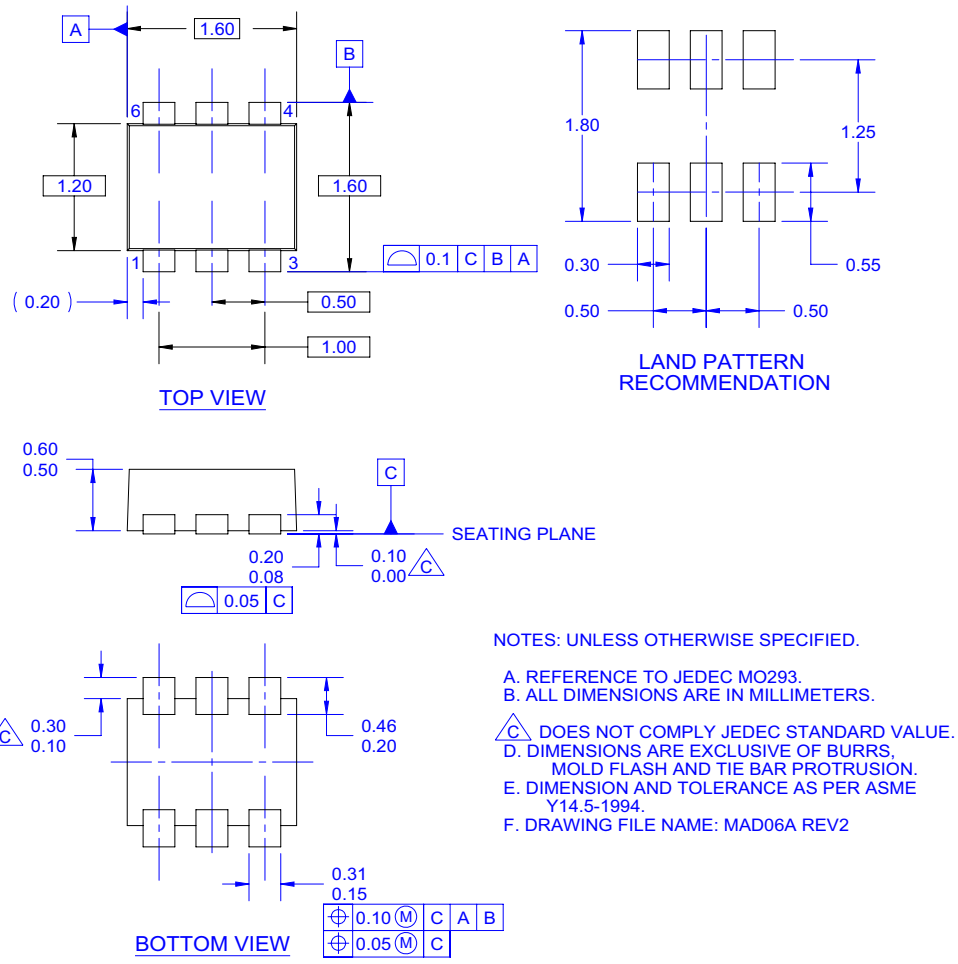


Figure 3. Junction Capacitance



Physical Dimension

SOT-563F



NOTES: UNLESS OTHERWISE SPECIFIED.

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B. ALL DIMENSIONS ARE IN MILLIMETERS.
C 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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