WILLAS

RoHS COMPLIANT

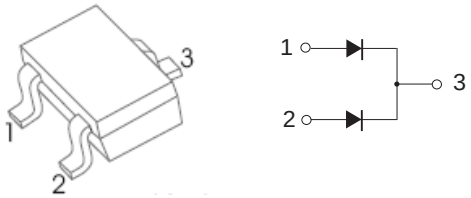
BAV70WN

Silicon Epitaxial Planar Switching Diode

PRIMARY CHARACTERISTICS	
V_{RM}	100V
I_F	100mA
V_F@I_F=1mA	0.715V
$T_{J,Max}$	150℃

SCHEMATIC DIAGRAM
SOT-323 PACKAGE

MARKING: A4



FEATURES

- Fast switching diode
- Ultra small surface mount package
- Moisture Sensitivity Level 1

MECHANICAL DATA

- Case：Molded plastic,SOT-323
- Polarity：Shown above
- Terminals :Plated terminals, solderable per MIL-STD-750,Method 2026
- Epoxy : UL94-V0 rated flame retardant

Absolute Maximum Ratings (T_a = 25 °C)

Parameter		Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage		V_{RM}	100	V
Reverse Voltage		V_R	75	V
Continuous Forward Current	Single diode loaded Double diode loaded	I_F	175 100	mA
Repetitive Peak Forward Current		I_{FRM}	500	mA
Non-repetitive Peak Forward Surge Current	at t = 1 s at t = 1 ms at t = 1 µs	I_{FSM}	0.5 1 4	A
Power Dissipation		P_{tot}	200	mW
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_{stg}	- 65 to + 150	°C

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Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at I_R = 100 µA	$V_{BR(R)}$	75	-	V
Forward Voltage at I_F = 1 mA at I_F = 10 mA at I_F = 50 mA at I_F = 150 mA	V_F	 - - - -	 0.715 0.855 1 1.25	V
Reverse Leakage Current at V_R = 25 V at V_R = 75 V at V_R = 25 V, T_J = 150 °C at V_R = 75 V, T_J = 150 °C	I_R	 - - - -	 30 2.5 60 100	 nA µA µA µA
Diode Capacitance at V_R = 0 V, f = 1 MHz	C_{tot}	-	2	pF
Reverse Recovery Time at I_F = 10 mA to I_R = 10 mA, I_{rr} = 0.1 I_R, R_L = 100 Ω	t_{rr}	-	4	ns

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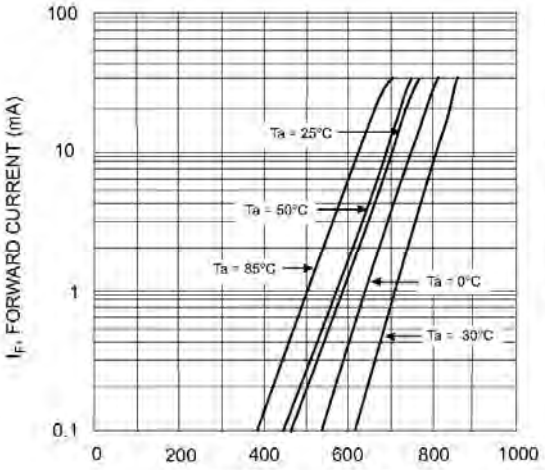


Fig. 1 Forward Current vs. Forward Voltage

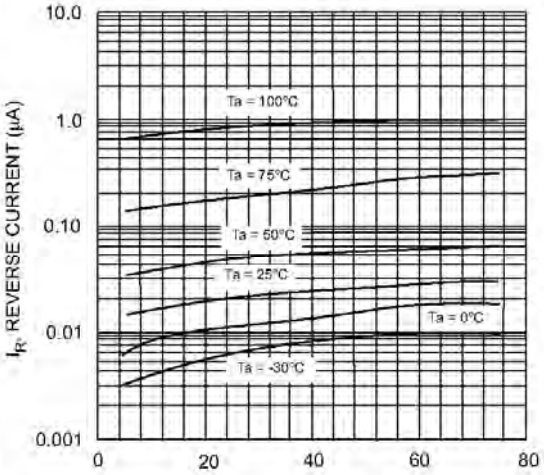


Fig. 2 Reverse Current vs Reverse Voltage

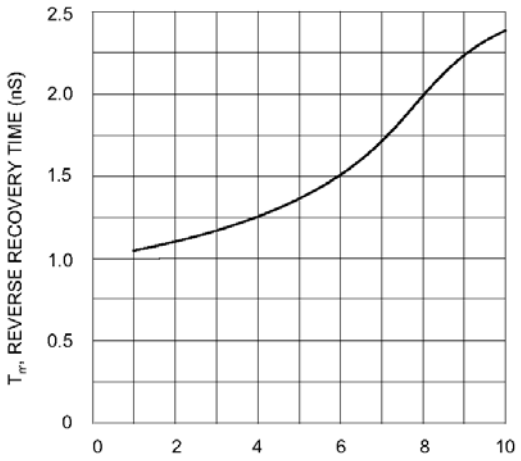


Fig. 3. Reverse Recovery Time vs. Forward Current

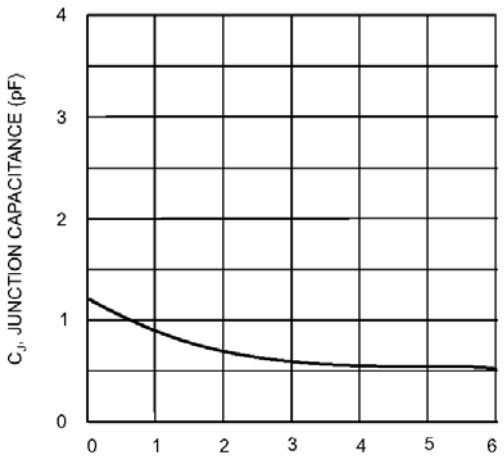
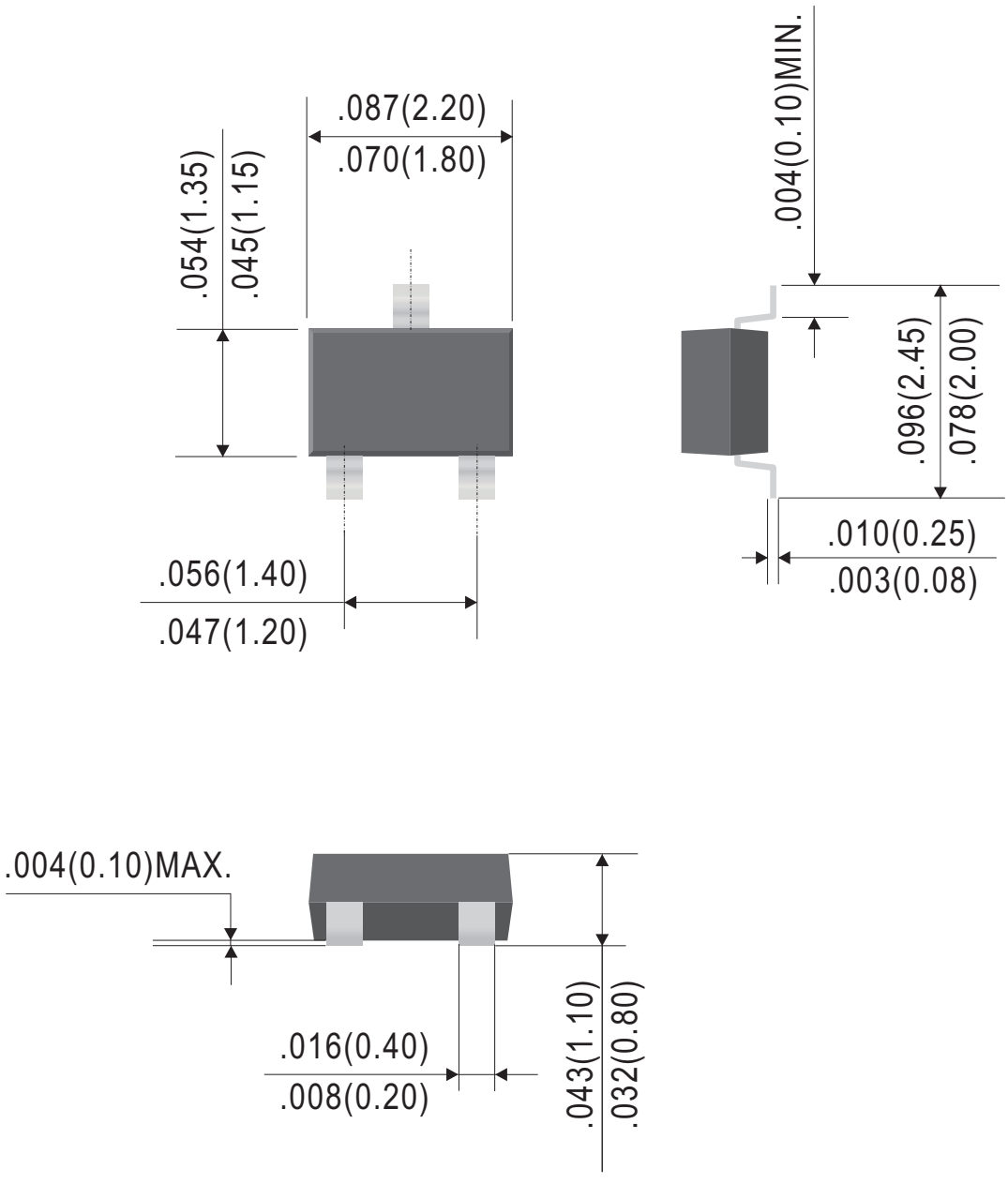


Fig. 4. Typical Junction Capacitance vs. Reverse Voltage

Outline Drawing

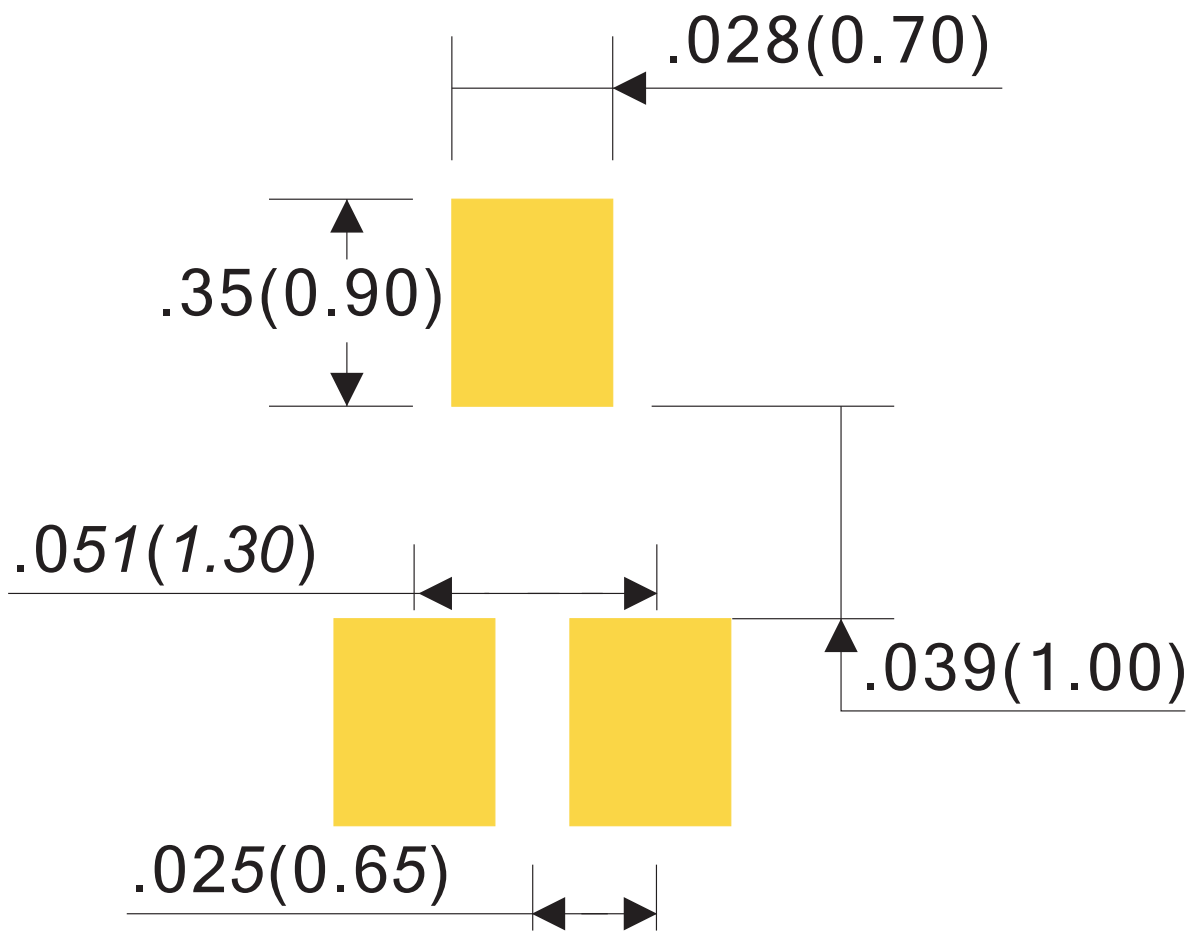
SOT-323



Dimensions in inches and (millimeters)

Rev.D

Suggested Soldering Pad Layout	SOT-323



Dimensions in inches and (millimeters)

RevA

Ordering Information:

Device PN	Packing
BAV70WN -T(1)H(2)-WS(3)	Tape&Reel: 3 Kpcs/Reel

Note: (1) Packing code, Tape & Reel Packing

(2) Halogen free product for packing code suffix "H"

(3) WS : Willas brand abbreviation, Label Type does not display