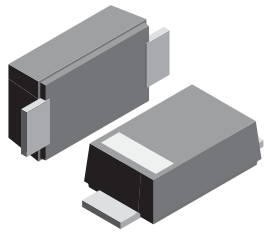
SUNMATE SEMICONDUCTORCO · LIMITED

BAV300-BAV303

SURFACE MOUNT FAST SWITCHING DIODE



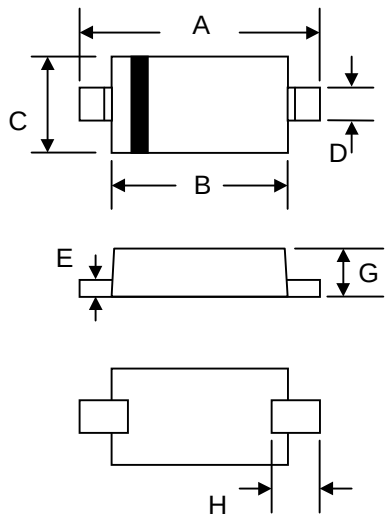
Features

- Silicon Epitaxial Planar Diodes
- Saving space
- Hermetic sealed parts

Mechanical Data

- Case: SOD-323, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.004 grams (approx.)
- Marking: A3

RoHS COMPLIANT



SOD-323		
Dim	**Min**	**Max**
A	2.30	2.70
B	1.75	1.95
C	1.15	1.35
D	0.25	0.35
E	0.05	0.15
G	0.70	0.95
H	0.30	—
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics @ T_A = 25°C unless otherwise specified

Parameter	Test condition	Part	Symbol	Value	Unit
Peak reverse voltage		BAV300	V_{RRM}	60	V
		BAV301	V_{RRM}	120	V
		BAV302	V_{RRM}	200	V
		BAV303	V_{RRM}	250	V
Reverse voltage		BAV300	V_R	50	V
		BAV301	V_R	100	V
		BAV302	V_R	150	V
		BAV303	V_R	200	V
Forward continuous current			I_F	250	mA
Peak forward surge current	t_p = 1 s, T_j = 25 °C		I_{FSM}	1	A
Forward peak current	f = 50 Hz		I_{FM}	625	mA

Parameter	Test condition	Part	Symbol	Min	Typ.	Max	Unit
Forward voltage	I_F = 100 mA		V_F			1000	mV
Reverse current	V_R = 50 V	BAV300	I_R			100	nA
	V_R = 100 V	BAV301	I_R			100	nA
	V_R = 150 V	BAV302	I_R			100	nA
	V_R = 200 V	BAV303	I_R			100	nA
	T_j = 100 °C, V_R = 50 V	BAV300	I_R			15	µA
	T_j = 100 °C, V_R = 100 V	BAV301	I_R			15	µA
	T_j = 100 °C, V_R = 150V	BAV302	I_R			15	µA
	T_j = 100 °C, V_R = 200V	BAV303	I_R			15	µA
Breakdown voltage	I_R = 100 µA, t_p/T = 0.01, $_p$ = 0.3 ms	BAV300	$V_{(BR)}$	60			V
	$_R$ = 100 µA, t_p/T = 0.01, $_p$ = 0.3 ms	BAV301	$V_{(BR)}$	120			V
		BAV302	$V_{(BR)}$	200			V
		BAV303	$V_{(BR)}$	250			V
Diode capacitance	V_R = 0, f = 1 MHz		C_D		1.5		pF
Differential forward resistance	I_F = 10 mA		r_f		5		Ω
Reverse recovery time	I_F = I_R = 30 mA, i_R = 3 mA, R_L = 100 Ω		t_{rr}			50	ns

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Typical Characteristics T_{amb} = 25 °C, unless otherwise specified

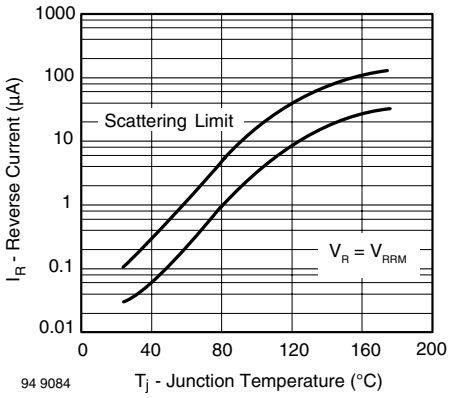


Figure 1. Reverse Current vs. Junction Temperature

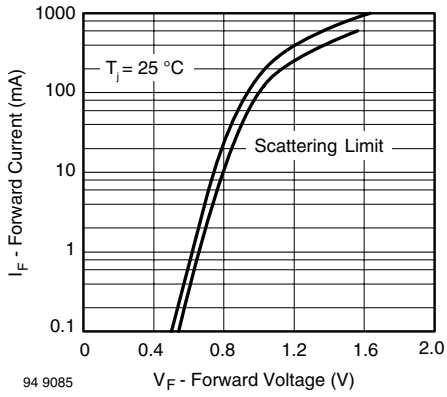


Figure 2. Forward Current vs. Forward Voltage

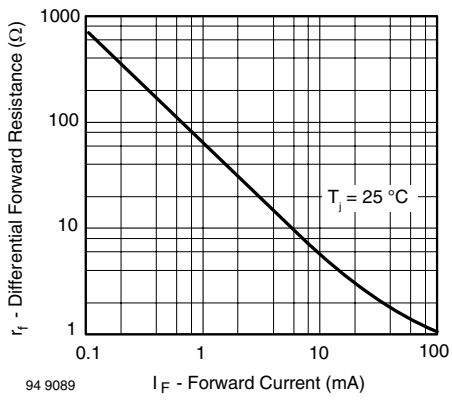


Figure 3. Differential Forward Resistance vs. Forward Current

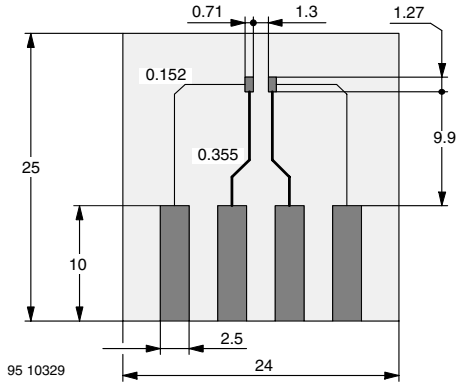


Figure 4. Board for R_{thJA} definition (in mm)