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BAV300 THRU BAV303

Switching Diodes

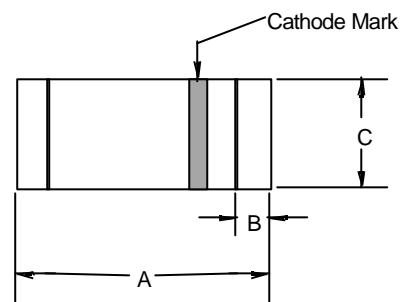
Features

- Saving Space
- Silicon Epitaxial Planar Diodes
- Hermetic Sealed Parts
- Fits onto SOD-323/SOT-23 footprints
- Electrical data identical with the devices BAV100...BAV103
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)

Maximum Ratings

Continuous Reverse Voltage	BAV300 BAV301 BAV302 BAV303	V_R	50V 100V 150V 200V	$T_A=25^\circ\text{C}$
Repetitive Peak Reverse Voltage	BAV300 BAV301 BAV302 BAV303	V_{RRM}	60V 120V 200V 250V	$T_A=25^\circ\text{C}$
Forward DC Current		I_F	250mA	$T_A=25^\circ\text{C}$
Repetitive Peak Forward Current		I_{FRM}	625mA	$f=50\text{Hz}, T_A=25^\circ\text{C}$
Surge Forward Current		I_{FSM}	1.0A	$T_P=1\text{s}, T_J=25^\circ\text{C}$
Thermal Resistance Junction to Ambient		R_{thJA}	500K/W	Note 2
Junction temperature		T_j	175°C	
Storage temperature Range		T_{stg}	-65 to + 175°C	

MICROMELF

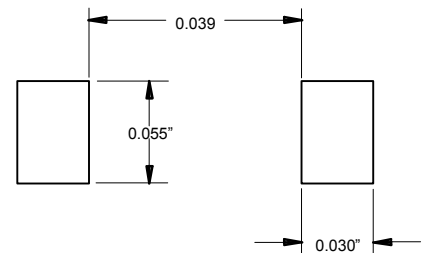


Electrical Characteristics @ 25°C Unless Otherwise Specified

Maximum Forward Voltage	V_F	1.00V	$I_F = 100\text{mA}, T_A=25^\circ\text{C}$
Maximum Leakage current	I_R	100nA 15 μA	$V_R=50\text{V}, T_j=100^\circ\text{C}$ $V_R=100\text{V}, T_j=100^\circ\text{C}$ $V_R=100\text{V}, T_j=100^\circ\text{C}$ $V_R=150\text{V}, T_j=100^\circ\text{C}$ $V_R=150\text{V}, T_j=100^\circ\text{C}$ $V_R=200\text{V}, T_j=100^\circ\text{C}$ $V_R=200\text{V}, T_j=100^\circ\text{C}$
Maximum Leakage current	$V_{(BR)}$	60V 120V 200V 250V	$I_R=100\mu\text{A}, t_P/T=0.01,$ $t_P=0.3\text{ms}$
Diode Capacitance	C_D	1.5pF	$V_R=0\text{V}, f=1.0\text{MHz}$
Maximum Reverse recovery time	t_{rr}	50ns	$I_F=10\text{mA}, I_R=30\text{mA}$ $I_{rr}=3.0\text{mA}, R_L=100\Omega$
Differential Forward Resistance	r_F	5.0 Ω	$I_F=10\text{mA}$

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.071	.079	1.8	2.0	
B	.004	.008	.10	.20	
C	.047	.051	1.20	1.30	∅

SUGGESTED SOLDER PAD LAYOUT



Notes:1.High Temperature Solder Exemption Applied, see EU Directive Annex 7.
2.mounted on epoxy-glass hard tissue, Fig.4 35 μm copper clad, 0.9 mm^2 copper area per electrode

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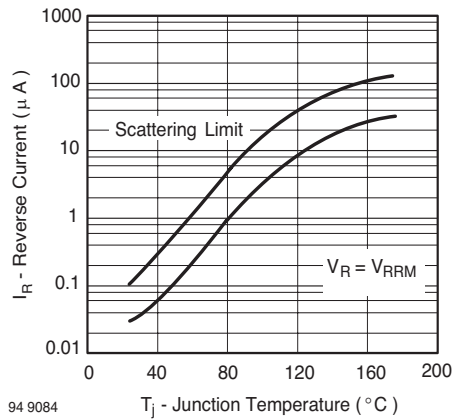


Fig. 1 Reverse Current vs. Junction Temperature

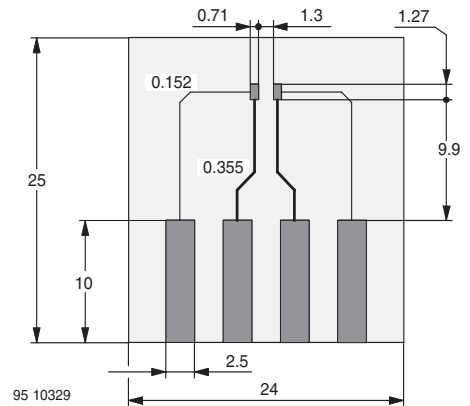


Fig. 4 Board for R_{thJA} definition (in mm)

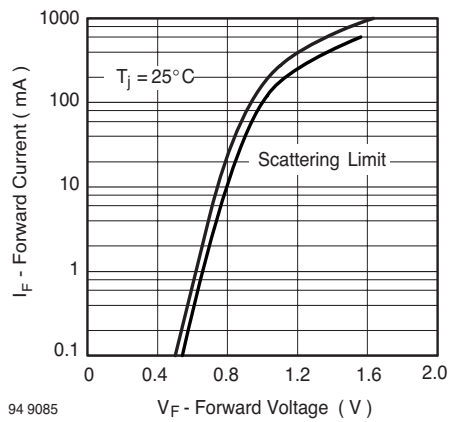


Fig. 2 Forward Current vs. Forward Voltage

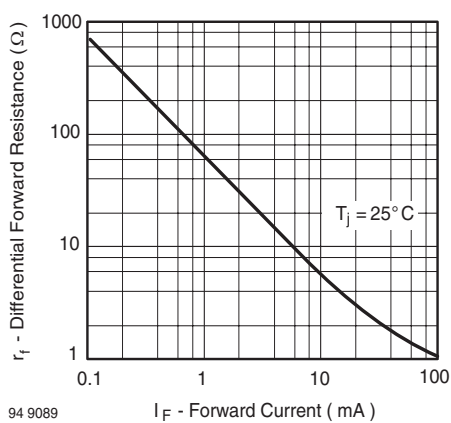


Fig. 3 Differential Forward Resistance vs. Forward Current

Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel;2.5Kpcs/Reel

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