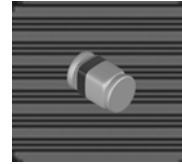


Features

- Silicon Epitaxial Planar Diodes
- Saving space
- Hermetic sealed parts
- Fits onto SOD 323 / SOT 23 footprints
- Electrical data identical with the devices BAV100...BAV103 / BAV200...BAV203



Applications

- General purposes

Mechanical Data

- Case: MicroMELF Glass Case
- Weight: approx. 12 mg
- Cathode Band Color: Black

Absolute Maximum Ratings

($T_{amb}=25^{\circ}\text{C}$ 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 current			I_F	250	mA
Peak forward surge current	$t_s=1\text{ s}, T=25^{\circ}\text{C}$		I_{FSM}	1	A
Forward peak current	$f=50\text{Hz}$		I_{FM}	625	mA

Thermal Characteristics

($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Test Condition	Symbol	Value	Unit
Junction ambient	mounted on epoxy-glass hard tissue, Fig 4. 35 μm copper clad, 0.9 m^2 copper area per electrode	$R_{\theta JA}$	500	K/W
Junction temperature		T_J	175	$^{\circ}\text{C}$
Storage temperature range		T_{stg}	-65 to +175	$^{\circ}\text{C}$

Electrical Characteristics

($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

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

Typical characteristics

($T_{amb} = 25^{\circ}\text{C}$ unless otherwise specified)

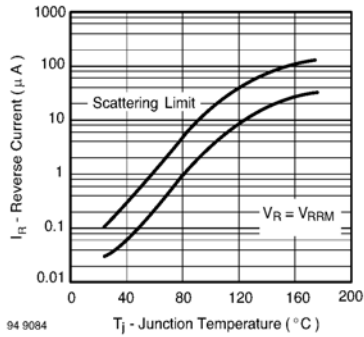


Fig. 1 Reverse Current vs. Junction Temperature

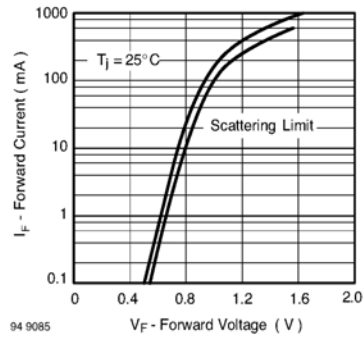


Fig. 2 Forward Current vs. Forward Voltage

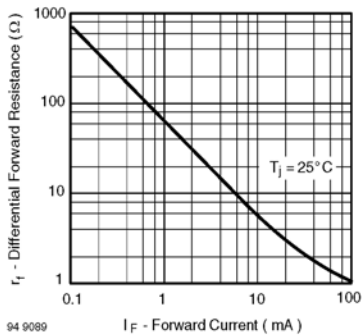


Fig. 3 Differential Forward Resistance vs. Forward Current

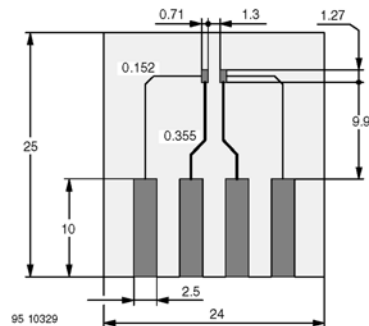


Fig. 4 Board for R_{thJA} definition (in mm)

Package Dimensions in mm (inches)

