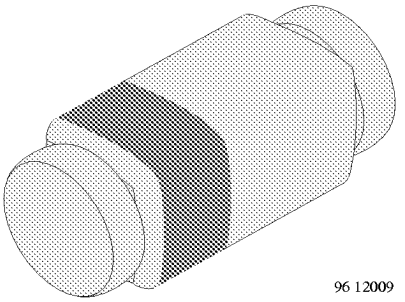
Silicon Epitaxial Planar Diodes

Applications

General purposes



Absolute Maximum Ratings

T_j = 25°C

Parameter	Test Conditions	Type	Symbol	Value	Unit
Peak reverse voltage		BAV200	V_{RRM}	60	V
		BAV201	V_{RRM}	120	V
		BAV202	V_{RRM}	200	V
		BAV203	V_{RRM}	250	V
Reverse voltage		BAV200	V_R	50	V
		BAV201	V_R	100	V
		BAV202	V_R	150	V
		BAV203	V_R	200	V
Forward current			I_F	250	mA
Peak forward surge current	t_p=1s, T_j=25°C		I_{FSM}	1	A
Forward peak current	f=50Hz		I_{FM}	625	mA
Junction temperature			T_j	175	°C
Storage temperature range			T_{stg}	–65...+175	°C

Maximum Thermal Resistance

T_j = 25°C

Parameter	Test Conditions	Symbol	Value	Unit
Junction ambient	on PC board 50mmx50mmx1.6mm	R_{thJA}	500	K/W

Electrical Characteristics

T_j = 25°C

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	I_F=100mA		V_F			1	V
Reverse current	V_R=50V	BAV200	I_R			100	nA
	V_R=100V	BAV201	I_R			100	nA
	V_R=150V	BAV202	I_R			100	nA
	V_R=200V	BAV203	I_R			100	nA
	T_j=100°C, V_R= 50V	BAV200	I_R			15	µA
	T_j=100°C, V_R= 100V	BAV201	I_R			15	µA
	T_j=100°C, V_R= 150V	BAV202	I_R			15	µA
	T_j=100°C, V_R= 200V	BAV203	I_R			15	µA
Breakdown voltage	I_R=100µA, t_p/T=0.01, t_p=0.3ms	BAV200	$V_{(BR)}$	60			V
		BAV201	$V_{(BR)}$	120			V
		BAV202	$V_{(BR)}$	200			V
		BAV203	$V_{(BR)}$	250			V
Diode capacitance	V_R=0, f=1MHz		C_D		1.5		pF
Differential forward resistance	I_F=10mA		r_f		5		Ω
Reverse recovery time	I_F=I_R=30mA, i_R=3mA, R_L=100Ω		t_{rr}			50	ns

Characteristics (T_j = 25°C unless otherwise specified)

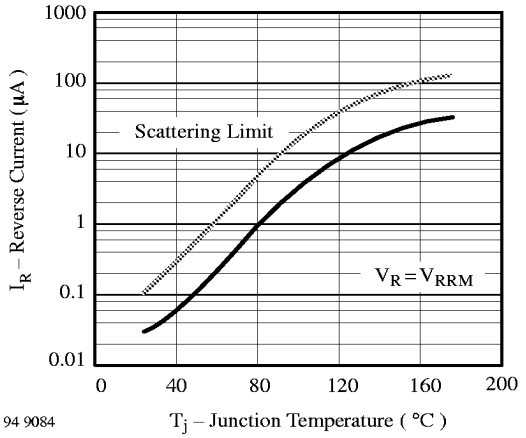


Figure 1. Reverse Current vs. Junction Temperature

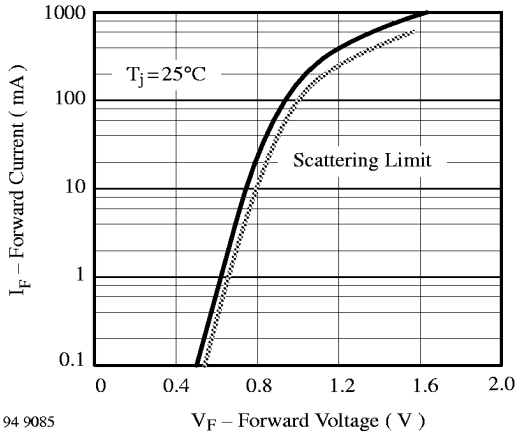


Figure 2. Forward Current vs. Forward Voltage

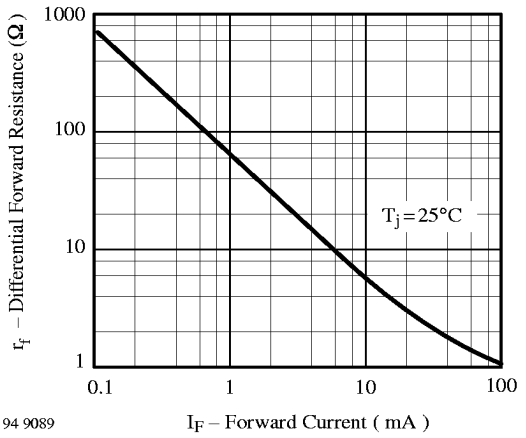


Figure 3. Differential Forward Resistance vs. Forward Current

Dimensions in mm