

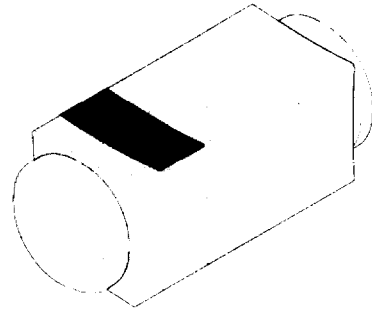
Silicon Planar Diodes

Features

- Very low reverse current

Applications

Protection circuits, time delay circuits, peak follower circuits, logarithmic amplifiers



94 9373

Absolute Maximum Ratings

$T_j = 25^\circ\text{C}$

Parameter	Test Conditions	Type	Symbol	Value	Unit
Reverse voltage		BAQ133	V_R	30	V
		BAQ134	V_R	60	V
		BAQ135	V_R	125	V
Peak forward surge current	$t_p = 1\mu\text{s}$		I_{FSM}	2	A
Forward current			I_F	200	mA
Junction temperature			T_J	200	$^\circ\text{C}$
Storage temperature range			T_{Stg}	-65...+200	$^\circ\text{C}$

Maximum Thermal Resistance

$T_j = 25^\circ\text{C}$

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

Characteristics

$T_j = 25^\circ\text{C}$

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F=100\text{mA}$		V_F			1	V
Reverse current	$E \leq 500\text{lx}, V_R$		I_R		1	3	nA
	$E \leq 500\text{lx}, V_R, T_j=125^\circ\text{C}$		I_R			0.5	μA
	$E \leq 500\text{lx}, V_R=15\text{V}$	BAQ133	I_R		0.5	1	nA
	$E \leq 500\text{lx}, V_R=30\text{V}$	BAQ134	I_R		0.5	1	nA
	$E \leq 500\text{lx}, V_R=60\text{V}$	BAQ135	I_R		0.5	1	nA
Breakdown voltage	$I_R=5\mu\text{A}, t_p/T=0.01, t_p=0.3\text{ms}$	BAQ133	$V_{(BR)}$	40			V
		BAQ134	$V_{(BR)}$	70			V
		BAQ135	$V_{(BR)}$	140			V
Diode capacitance	$V_R=0, f=1\text{MHz}$		C_D			3	pF

Typical Characteristics ($T_j = 25^\circ\text{C}$ unless otherwise specified)

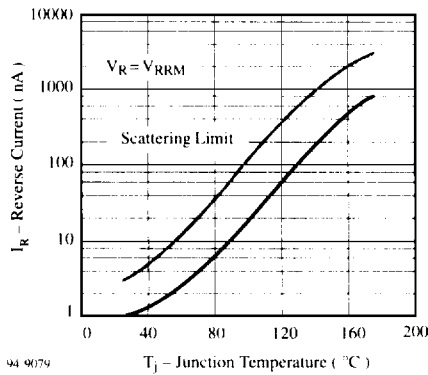


Figure 1 : Reverse Current vs. Junction Temperature

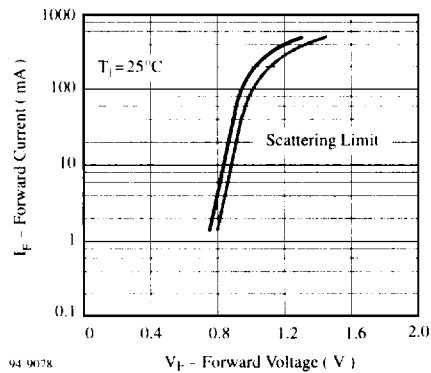


Figure 2 : Forward Current vs. Forward Voltage

Dimensions in mm

