



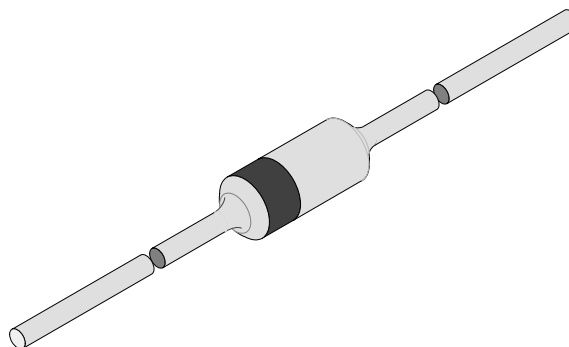
Switching Diode

Features

- Silicon Epitaxial Planar Diodes

Applications

General purposes



94 9367

Order Instruction

Type	Type Differentiation	Ordering Code	Remarks
BAV17	$V_{RRM} = 25\text{ V}$	BAV17-TAP	Ammopack
		BAV17-TR	Tape and Reel
BAV18	$V_{RRM} = 60\text{ V}$	BAV18-TAP	Ammopack
		BAV18-TR	Tape and Reel
BAV19	$V_{RRM} = 120\text{ V}$	BAV19-TAP	Ammopack
		BAV19-TR	Tape and Reel
BAV20	$V_{RRM} = 200\text{ V}$	BAV20-TAP	Ammopack
		BAV20-TR	Tape and Reel
BAV21	$V_{RRM} = 250\text{ V}$	BAV21-TAP	Ammopack
		BAV21-TR	Tape and Reel

Absolute Maximum Ratings

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

Parameter	Test Conditions	Type	Symbol	Value	Unit
Peak reverse voltage		BAV17	V_{RRM}	25	V
		BAV18		60	V
		BAV19		120	V
		BAV20		200	V
		BAV21		250	V
Reverse voltage		BAV17	V_R	20	V
		BAV18		50	V
		BAV19		100	V
		BAV20		150	V
		BAV21		200	V
Forward current			I_F	250	mA
Peak forward surge current	$t_p=1\text{s}, T_j=25^\circ\text{C}$		I_{FSM}	1	A
Forward peak current	$f=50\text{Hz}$		I_{FM}	625	mA
Junction temperature			T_j	175	$^\circ\text{C}$
Storage temperature range			T_{stg}	-65...+175	$^\circ\text{C}$

Maximum Thermal Resistance

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

Parameter	Test Conditions	Symbol	Value	Unit
Junction ambient	$l=4\text{ mm}$, $T_L=\text{constant}$	R_{thJA}	350	K/W

Electrical 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	$V_R=20\text{ V}$	BAV17	I_R			100	nA
	$V_R=50\text{ V}$	BAV18	I_R			100	nA
	$V_R=100\text{ V}$	BAV19	I_R			100	nA
	$V_R=150\text{ V}$	BAV20	I_R			100	nA
	$V_R=200\text{ V}$	BAV21	I_R			100	nA
	$T_j=100^\circ\text{C}$, $V_R=20\text{ V}$	BAV17	I_R			15	μA
	$T_j=100^\circ\text{C}$, $V_R=50\text{ V}$	BAV18	I_R			15	μA
	$T_j=100^\circ\text{C}$, $V_R=100\text{ V}$	BAV19	I_R			15	μA
	$T_j=100^\circ\text{C}$, $V_R=150\text{ V}$	BAV20	I_R			15	μA
	$T_j=100^\circ\text{C}$, $V_R=200\text{ V}$	BAV21	I_R			15	μA
Breakdown voltage	$I_R=100\mu\text{A}$, $t_p/T=0.01$, $t_p=0.3\text{ms}$	BAV17	$V_{(BR)}$	25			V
		BAV18	$V_{(BR)}$	60			V
		BAV19	$V_{(BR)}$	120			V
		BAV20	$V_{(BR)}$	200			V
		BAV21	$V_{(BR)}$	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

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

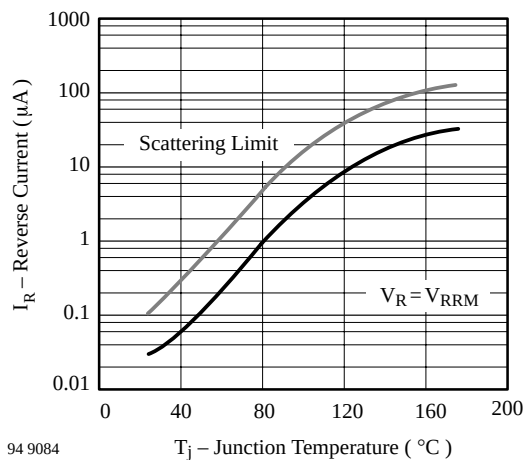


Figure 1. Reverse Current vs. Junction Temperature

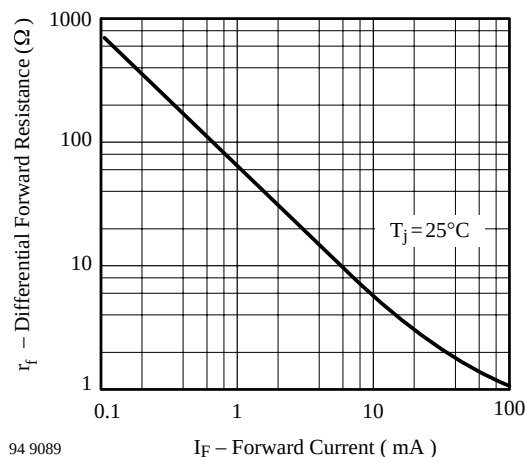


Figure 3. Differential Forward Resistance vs. Forward Current

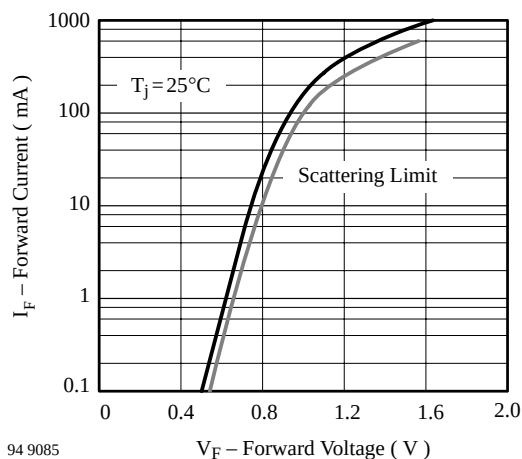


Figure 2. Forward Current vs. Forward Voltage

Dimensions in mm



technical drawings
according to DIN
specifications

94 9366

Standard Glass Case
54 A 2 DIN 41880
JEDEC DO 35
Weight max. 0.3g

