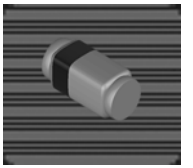
BAV200 / 201 / 202 / 203

Switching Diode

GOOD-ARK

Features

- Silicon Epitaxial Planar Diodes



Applications

- General purposes

Mechanical Data

- Case:QuadroMELF Glass Case (SOD-80)
- Weight: approx. 34 mg
- Cathode Band Color: Black

■Absolute Maximum Ratings

(T_{amb}=25°C unless otherwise specified)

Parameter	Test Condition	Part	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= 1 s, T_j=25°C		I_{FSM}	1	A
Forward peak current	f=50Hz		I_{FM}	625	mA

■Thermal Characteristics

(T_{amb}=25°C unless otherwise specified)

Parameter	Test Condition	Symbol	Value	Unit
Junction ambient	on PC board 50 mm X 50mm X 1.6mm	R_{thJA}	500	K/W
Junction temperature		T_j	175	°C
Stroage temperature range		T_{stg}	-65 to +175	°C

■Electrical Characteristics

(T_{amb}=25°C unless otherwise specified)

Parameter	Test Condition	Part	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	uA
	T_j=100°C, V_R=100V	BAV201	I_R			15	uA
	T_j=100°C, V_R=150V	BAV202	I_R			15	uA
	T_j=100°C, V_R=200V	BAV203	I_R			15	uA
Breakdown voltage	I_R=100uA, t_p/T=0.01, t_p=0.3ms	BAV200	$V_{(BR)}$	60			V
	I_R=100uA, t_p/T=0.01, t_p=0.3ms	BAV201	$V_{(BR)}$	120			V
	I_R=100uA, t_p/T=0.01, t_p=0.3ms	BAV202	$V_{(BR)}$	200			V
	I_R=100uA, t_p/T=0.01, t_p=0.3ms	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

■Typical characteristics

(T_{amb}=25°C unless otherwise specified)

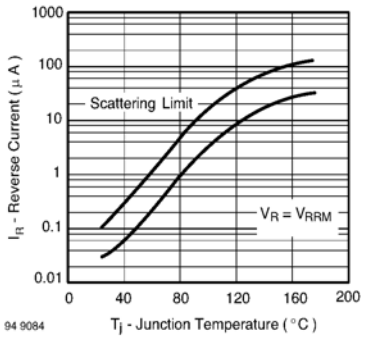


Fig. 1 Reverse Current vs. Junction Temperature

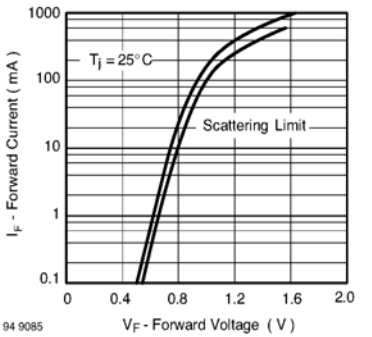


Fig. 2 Forward Current vs. Forward Voltage

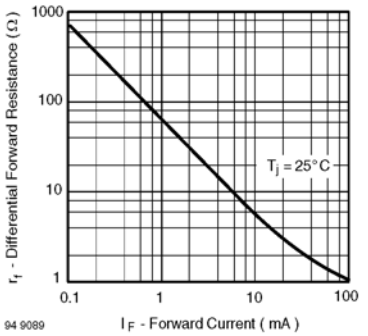
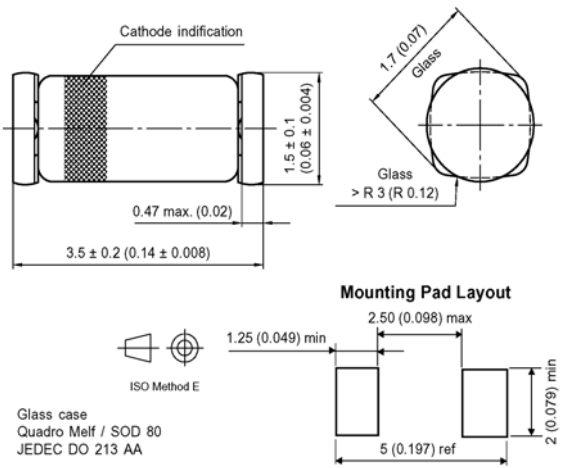


Fig. 3 Differential Forward Resistance vs. Forward Current

Package Dimensions in mm (inches)