BAV100---BAV103

SMALL SIGNAL SWITCHING DIODE

Reverse Voltage - 50 to 200 Volts *Forward Current - 250 mApere*

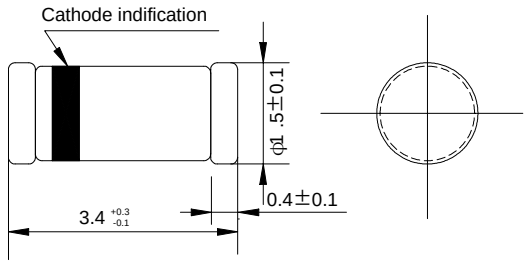
FEATURES

- ◇ Silicon epitaxial planar diode
- ◇ High speed switching diode
- ◇ 500 mW power dissipation

MECHANICAL DATA

- ◇ Case: MINI-MELF,glass case
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: Approx 0.031 grams

MINI-MELF



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C,ambient temperature unless otherwise specified.

ABSOLUTE MAXIMUM RATINGS AND THERMAL RESISTANCE

		BAV100	BAV101	BAV102	BAV103	Unit
Reverse voltage	V_R	50	100	150	200	V
Repetitive peak reverse voltage	V_{RRM}	60	120	200	250	V
Forward current	$I_{(AV)}$	0.25				A
Forward surge current t_p=1s	I_{FSM}	1.0				A
Power dissipation	P_V	500				mW
Thermal resistance junction to ambient	$R_{\theta JA}$	500[1)]				K/W
Thermal resistance junction to lead	$R_{\theta JL}$	350				K/W
Junction temperature	T_j	175				°C
Storage temperature range	T_{STG}	- 65 --- + 175				°C

[1)] Device mounted on PC board 50mm×50mm×1.6mm .

ELECTRICAL CHARACTERISTICS

Parameter	Test Conditions		Symbol	Min	Typ	Max	Unit
Forward voltage	I_F=100mA		V_F	-	-	1	V
Reverse current	V_R=50V,T_J=25°C	BAV100	I_R	-	-	100	n A
	V_R=50V,T_J=100°C	BAV100		-	-	15	μ A
	V_R=100V,T_J=25°C	BAV101		-	-	100	n A
	V_R=100V,T_J=100°C	BAV101		-	-	15	μ A
	V_R=150V,T_J=25°C	BAV102		-	-	100	n A
	V_R=150V,T_J=100°C	BAV102		-	-	15	μ A
	V_R=200V,T_J=25°C	BAV103		-	-	100	n A
	V_R=200V,T_J=100°C	BAV103		-	-	15	μ A
Breakdown voltage	I_R=100mA,t_p/T=0.01,t_p=0.3ms	BAV100	$V_{(BR)}$	60	-	-	V
		BAV101		120	-	-	V
		BAV102		200	-	-	V
		BAV103		250	-	-	V
Diode capacitance	V_R=0,f=1MH_Z		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

FIG 1. REVERSE CURRENT VS. JUNCTION TEMPERATURE

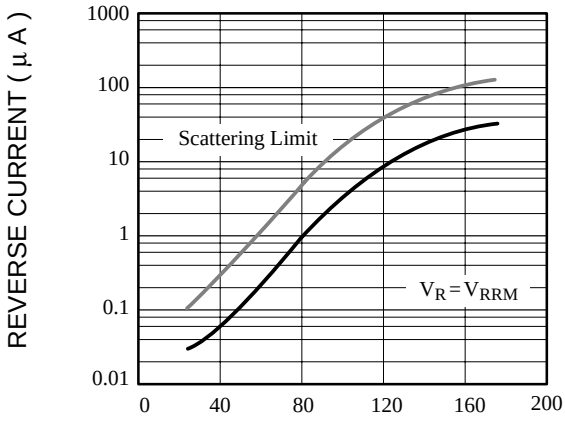


FIG 2. FORWARD CURRENT VS. FORWARD VOLTAGE

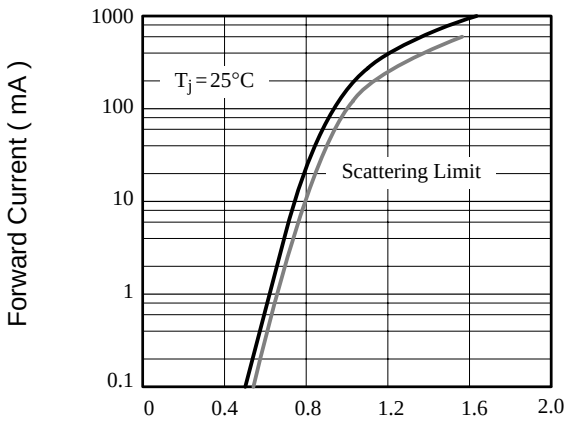


FIG 3. DIFFERENTIAL FORWARD RESISTANCE VS. FORWARD CURRENT