

SMALL SIGNAL SWITCHING DIODES

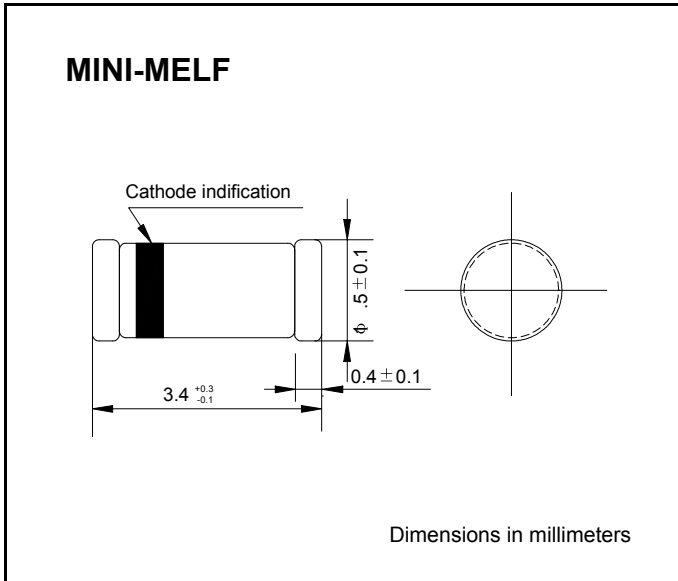
VOLTAGE RANGE: 50-200 V
CURRENT: 250 mA

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



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 .



BAV100---BAV103

ELECTRICAL CHARACTERISTICS

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F=100\text{mA}$	V_F	-	-	1	V
Reverse current	$V_R=50\text{V}, T_J=25^\circ\text{C}$ BAV100	I_R	-	-	100	nA
	$V_R=50\text{V}, T_J=100^\circ\text{C}$ BAV100		-	-	15	μA
	$V_R=100\text{V}, T_J=25^\circ\text{C}$ BAV101		-	-	100	nA
	$V_R=100\text{V}, T_J=100^\circ\text{C}$ BAV101		-	-	15	μA
	$V_R=150\text{V}, T_J=25^\circ\text{C}$ BAV102		-	-	100	nA
	$V_R=150\text{V}, T_J=100^\circ\text{C}$ BAV102		-	-	15	μA
	$V_R=200\text{V}, T_J=25^\circ\text{C}$ BAV103		-	-	100	nA
	$V_R=200\text{V}, T_J=100^\circ\text{C}$ BAV103		-	-	15	μA
Breakdown voltage	$I_R=100\text{mA}, t_p/T=0.01, t_p=0.3\text{ms}$ BAV100	$V_{(BR)}$	60	-	-	V
	BAV101		120	-	-	V
	BAV102		200	-	-	V
	BAV103		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

RATINGS AND CHARACTERISTIC CURVES

FIG 1. REVERSE CURRENT VS. JUNCTION TEMPERATURE

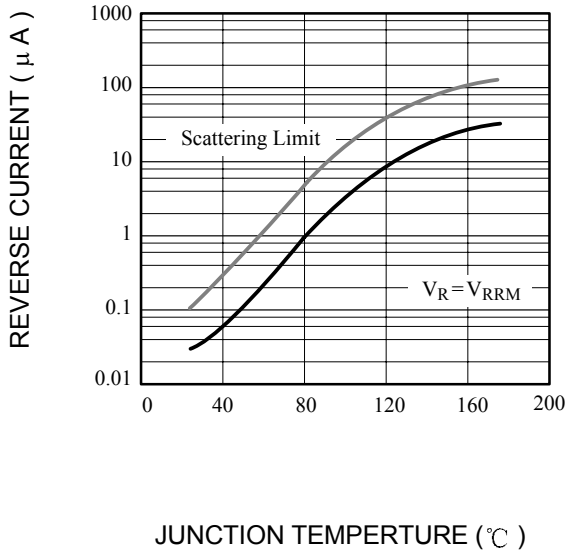


FIG 2. FORWARD CURRENT VS. FORWARD VOLTAGE

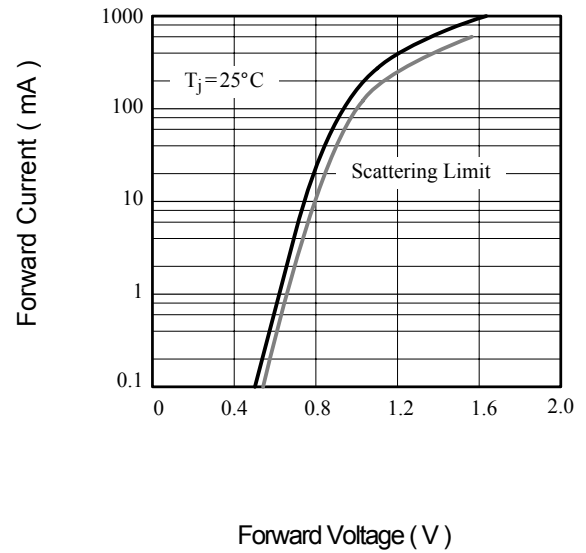


FIG 3. DIFFERENTIAL FORWARD RESISTANCE VS. FORWARD CURRENT

