



BAV100 - BAV103

SMALL SIGNAL SWITCHING DIODE

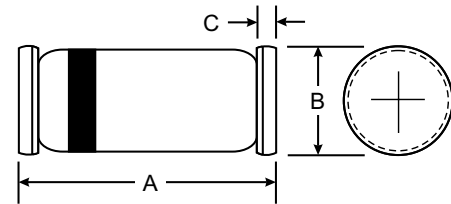


Features

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

Mechanical Data

- Case: SOD-80/LL34, Glass
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.05 grams (approx.)



LL34/ SOD-80		
Dim	Min	Max
A	3.30	3.70
B	1.30	1.60
C	0.28	0.50
All Dimensions in mm		

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	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 _{θJA}	500 ¹⁾				K/W
Thermal resistance junction to lead	R _{θJL}	350				K/W
Junction temperature	T _j	175				
Storage temperature range	T _{STG}	- 65 --- + 175				

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

ELECTRICAL CHARACTERISTICS

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F=100\text{mA}$	V_F	-	-	1	V
Reverse current	$V_R=50\text{V}, T_J=25$ BAV100	I_R	-	-	100	n A
	$V_R=50\text{V}, T_J=100$ BAV100		-	-	15	μ A
	$V_R=100\text{V}, T_J=25$ BAV101		-	-	100	n A
	$V_R=100\text{V}, T_J=100$ BAV101		-	-	15	μ A
	$V_R=150\text{V}, T_J=25$ BAV102		-	-	100	n A
	$V_R=150\text{V}, T_J=100$ BAV102		-	-	15	μ A
	$V_R=200\text{V}, T_J=25$ BAV103		-	-	100	n A
	$V_R=200\text{V}, T_J=100$ BAV103		-	-	15	μ A
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

FIG 1. REVERSE CURRENT VS. JUNCTION TEMPERATURE

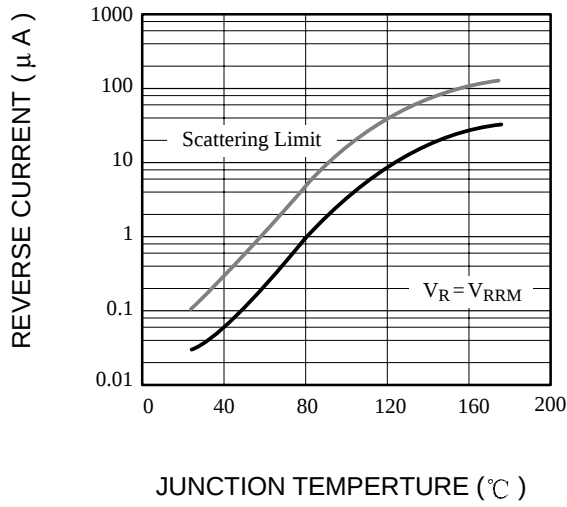
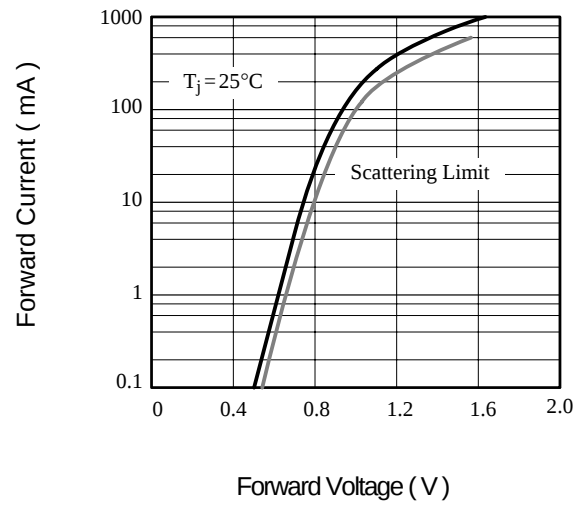


FIG 2. FORWARD CURRENT VS. FORWARD VOLTAGE



**FIG 3. DIFFERENTIAL FORWARD RESISTANCE
VS. FORWARD CURRENT**

