

Small Signal Product

200mW High Voltage SMD Switching Diode

FEATURES

- Surface mount device type
- Moisture sensitivity level 1
- Matte tin (Sn) lead finish
- Pb free version and RoHS compliant
- Packing code with suffix "G" means green compound (halogen-free)



SOD-323F



MECHANICAL DATA

- Case: Flat lead SOD-323F small outline plastic package
- Terminal: Matte tin plated, lead free., solderable per MIL-STD-202, Method 208 guaranteed
- High temperature soldering guaranteed : 260°C/10s
- Polarity: Indicated by cathode band
- Weight: 4.5 ± 0.5 mg

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation	P _D	200	mW
Repetitive Peak Reverse Voltage	V _{RRM}	250	V
Average Rectified Forward Current	I _{F(AV)}	200	mA
Non-Repetitive Peak Forward Surge Current	I _{FSM}	2.5	A
		0.5	
Junction and Storage Temperature Range	T _J , T _{STG}	-65 to 150	°C

PARAMETER	SYMBOL	MIN	MAX	UNIT
Breakdown Voltage (Note 1)	V _R	120	-	V
		200	-	
		250	-	
Forward Voltage	V _F	-	1	V
		-	1	
Reverse Leakage Current (Note 2)	I _R	-	100	nA
Junction Capacitance	C _J	-	5	pF
Reverse Recovery Time (Note 3)	t _{rr}	-	50	ns

Note 1: Test condition : I_R= 100μA

Note 2: Test condition : BAV19WS @ V_R=100V, BAV20WS @ V_R=150V, BAV21WS @ V_R=200V

Note 3: Test condition : I_F= I_R= 30mA , R_L=100Ω , I_{rr}=3mA

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RATINGS AND CHARACTERISTICS CURVES

($T_A=25^\circ\text{C}$ unless otherwise noted)

Fig. 1 Typical Forward Characteristics

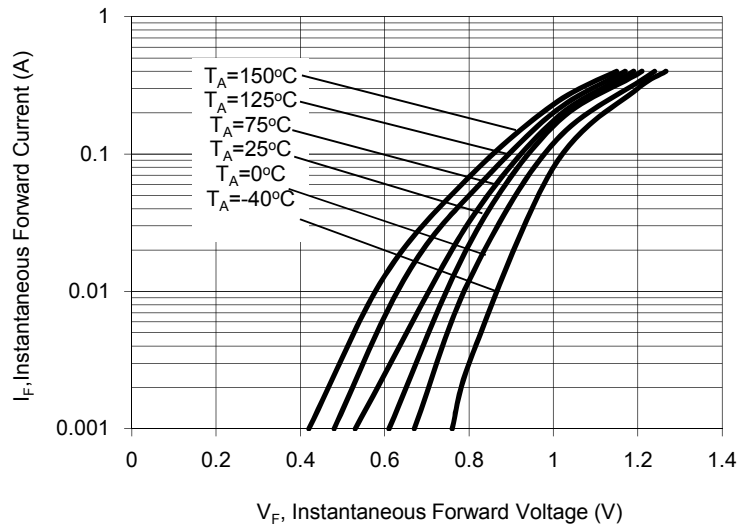


Fig. 2 Typical Reverse Characteristics

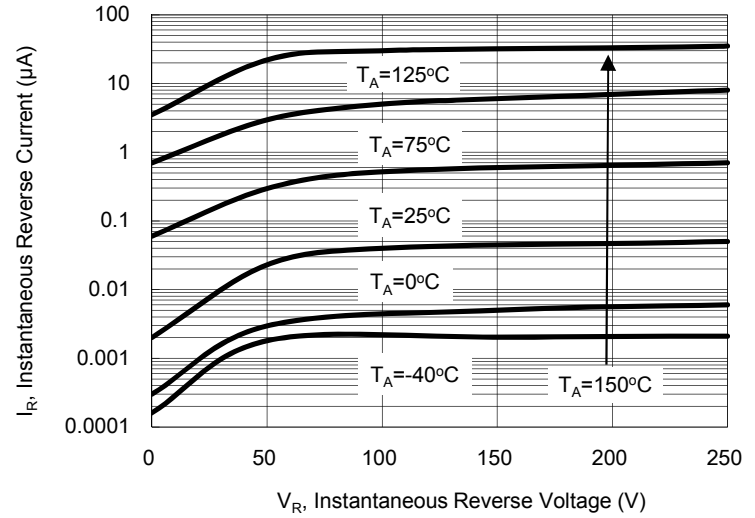


Fig. 3 Typical Capacitance VS. Reverse Voltage

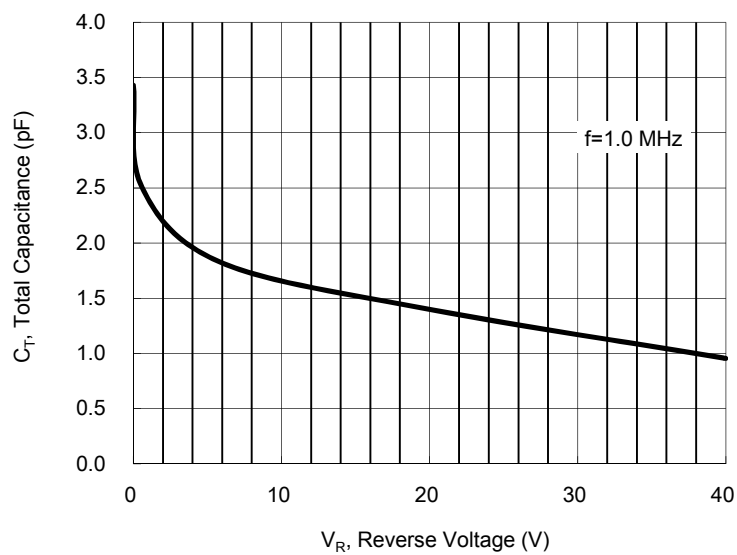
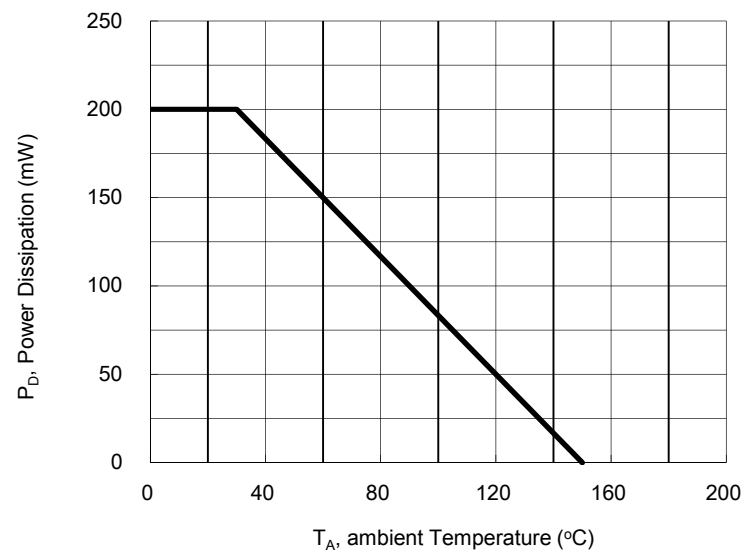


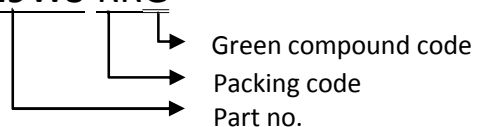
Fig. 4 Power Derating Curve



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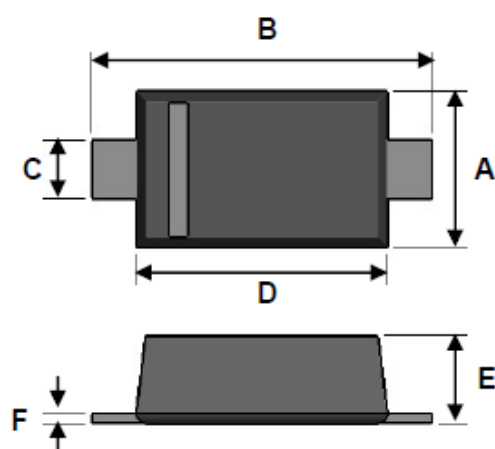
ORDER INFORMATION (EXAMPLE)

BAV19WS RRG



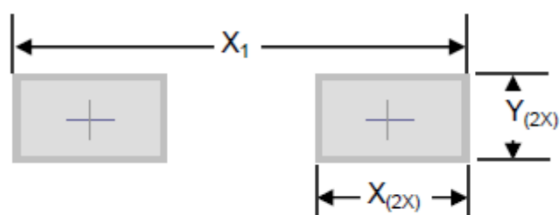
DIMENSIONS

SOD-323F



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	1.15	1.35	0.045	0.053
B	2.30	2.80	0.091	0.110
C	0.25	0.40	0.010	0.016
D	1.60	1.80	0.063	0.071
E	0.80	1.10	0.031	0.043
F	0.05	0.25	0.002	0.010

SUGGESTED PAD LAYOUT



DIM.	Unit (mm)	Unit (inch)
	Typ.	Typ.
X	0.710	0.028
X1	2.900	0.114
Y	0.403	0.016

Note: 1. The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application.

MARKING

Part No.	Marking
BAV19WS	S5
BAV20WS	S6
BAV21WS	S7

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