

Small Signal Product

225mW, SMD Switching Diode

FEATURES

- Low power loss, high current capability, low VF
- Surface device type mounting
- Moisture sensitivity level 1
- Matte Tin (Sn) lead finish with Nickel (Ni) under plate
- Pb free version and RoHS compliant
- Packing code with suffix "G" means green compound (halogen-free)

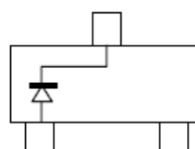


SOT-23



MECHANICAL DATA

- Case: SOT- 23, molded plastic
- Terminal: Matte tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- High temperature soldering guaranteed: 260°C/10s
- Weight: 8 mg (approximately)
- Marking Code: JV



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation	P _D	225	mW
Repetitive Peak Reverse Voltage	V _{RRM}	75	V
Mean Forward Current	I _O	200	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0 s	I _{FSM}	500	mA
Thermal Resistance (Junction to Ambient) (Note 1)	R _{θJA}	330	°C/W
Junction and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

PARAMETER	SYMBOL	MIN	MAX	UNIT
Reverse Breakdown Voltage I _R = 100 μA	V _{BR}	75	-	V
Forward Voltage I _F = 1 mA I _F = 10 mA I _F = 50 mA I _F = 150 mA	V _F	-	0.9	V
		-	1.0	
		-	1.1	
		-	1.25	
Reverse Leakage Current V _R = 75 V	I _R	-	5	nA
			80	
Junction Capacitance V _R = 0 V , f = 1.0 MHz	C _J	-	2.0	pF
Reverse Recovery Time (Note 2)	t _{rr}	-	3.0	ns

Notes : 1. Valid provided that electrodes are kept at ambient temperature

2. Reverse recovery test conditions : I_F=10mA , I_R=10mA , R_L=100 Ω, I_{RR}= 1mA

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RATINGS AND CHARACTERISTICS CURVES

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

Fig. 1 Typical Forward Characteristics

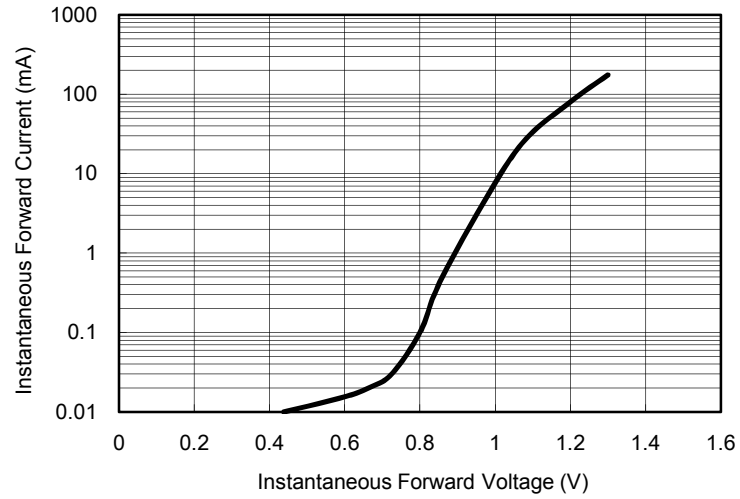


Fig. 2 Reverse Current vs. Reverse Voltage

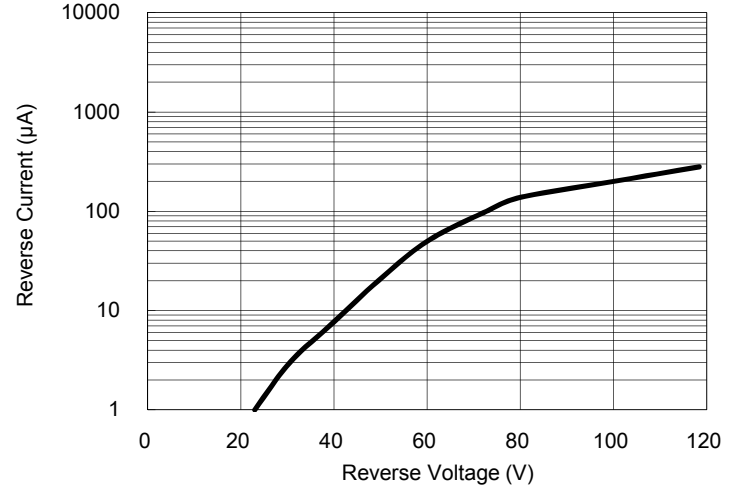


Fig. 3 Admissible Power Dissipation Curve

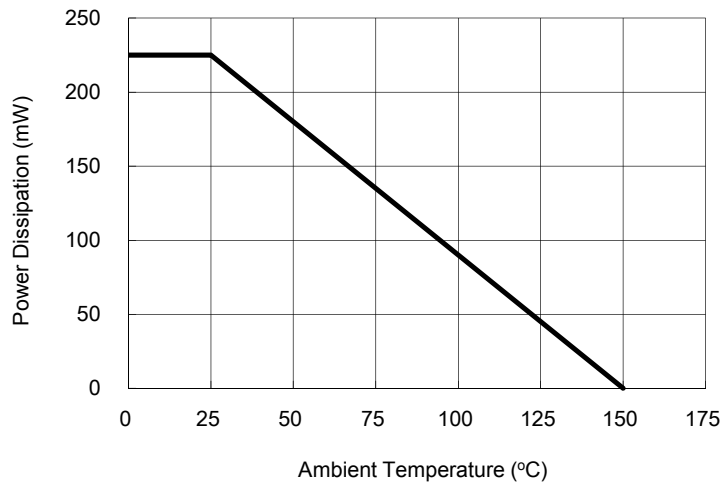
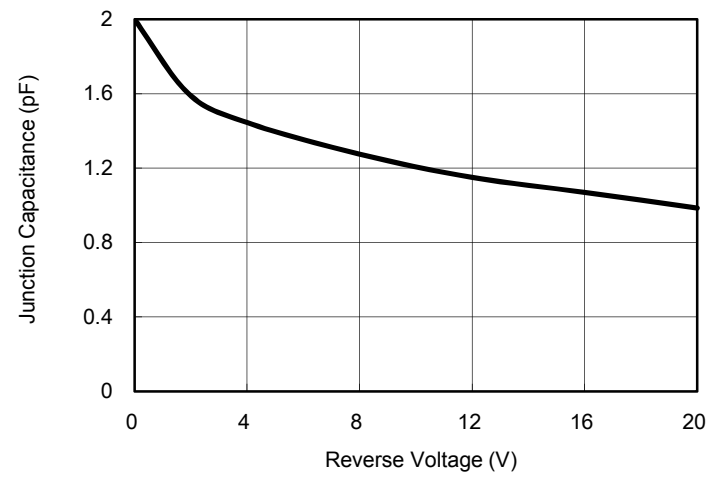


Fig. 4 Typical Junction Capacitance



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ORDERING INFORMATION

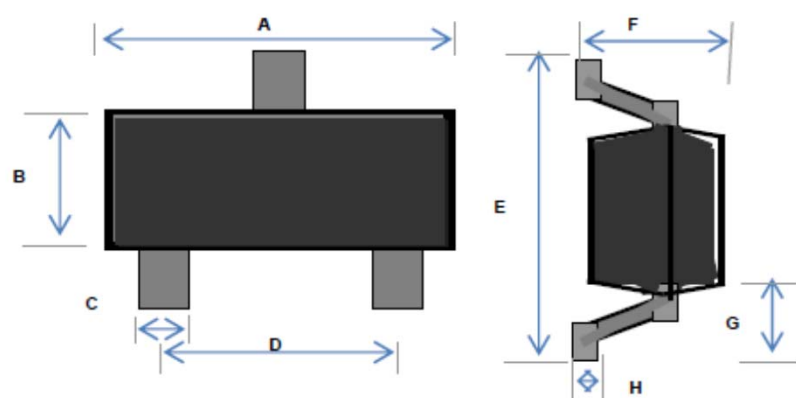
PART NO.	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
BAS116	RF	G	SOT-23	3K / 7" Reel

EXAMPLE

PREFERRED P/N	PART NO.	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
BAS116 RFG	BAS116	RF	G	Green compound

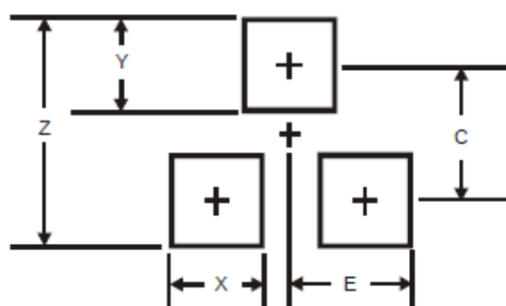
PACKAGE OUTLINE DIMENSIONS

SOT-23



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.70	3.10	0.106	0.122
B	1.10	1.50	0.043	0.059
C	0.30	0.51	0.012	0.020
D	1.78	2.04	0.070	0.080
E	2.10	2.64	0.083	0.104
F	0.89	1.30	0.035	0.051
G	0.55 REF		0.022 REF	
H	0.10 REF		0.004 REF	

SUGGESTED PAD LAYOUT



DIM.	Unit (mm)	Unit (inch)
	Typ.	Typ.
Z	2.8	0.110
X	0.7	0.028
Y	0.9	0.035
C	1.9	0.075
E	1.0	0.039

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