



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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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)

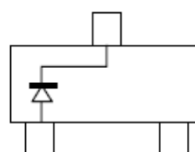


SOT-23



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

Small Signal Product

RATINGS AND CHARACTERISTICS CURVES

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

Fig. 1 Typical Forward Characteristics

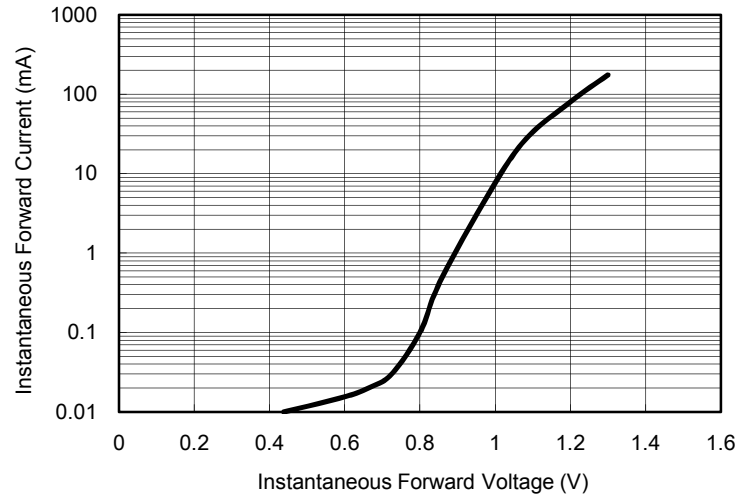


Fig. 2 Reverse Current vs. Reverse Voltage

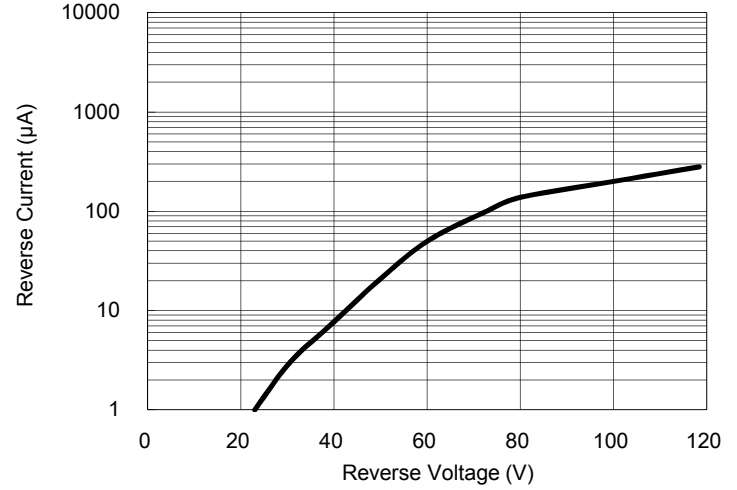


Fig. 3 Admissible Power Dissipation Curve

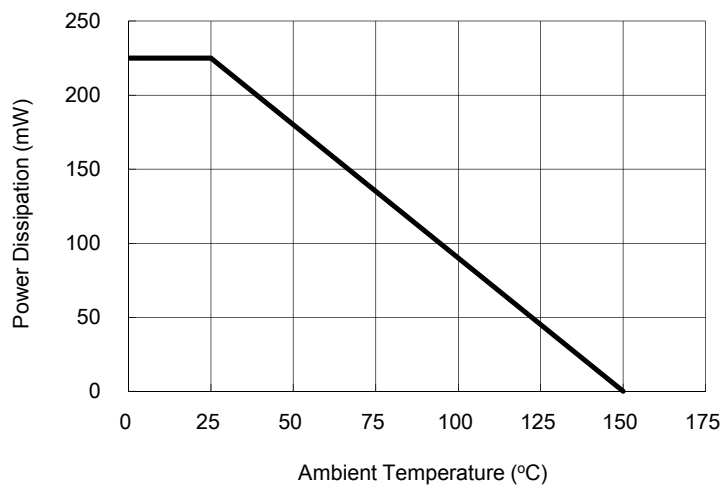
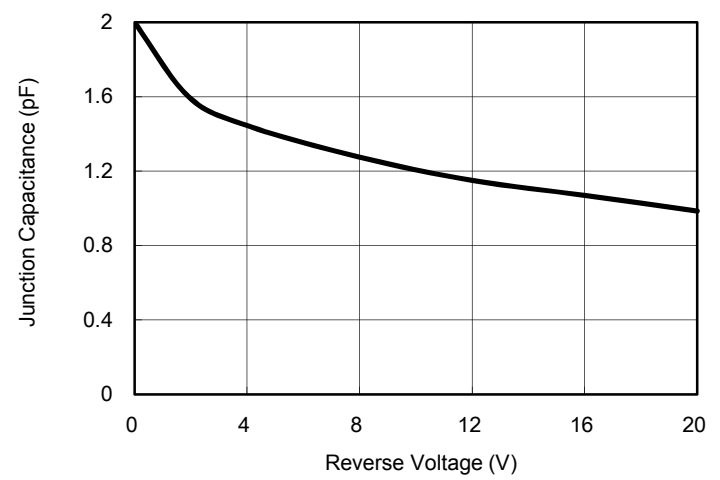


Fig. 4 Typical Junction Capacitance



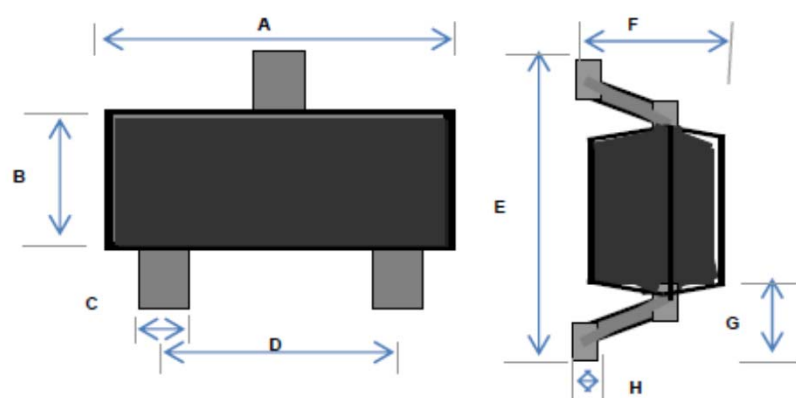
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ORDERING INFORMATION

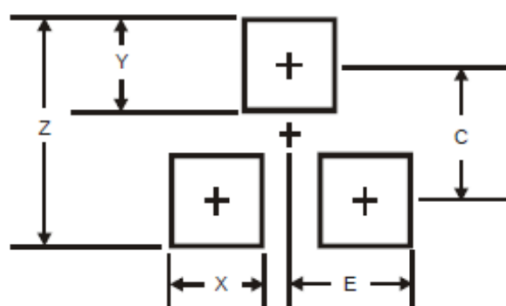
PART NO.	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
BAS116	RF	G	SOT-23	3K / 7" Reel

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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