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!

Contact us

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Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

Small Signal Product

225mW SMD Switching Diode

FEATURES

- Fast switching speed
- Surface mount device type
- Moisture sensitivity level 1
- Matte Tin(Sn) lead finish with Nickel(Ni) underplate
- Pb free and RoHS compliant
- Green compound (Halogen free) with suffix "G" on packing code and prefix "G" on date code

SOT-23

Pb-Free

RoHS COMPLIANT

MECHANICAL DATA

- Case: SOT-23 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
- Weight: 0.008grams (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERSTICS (T_A=25℃ unless otherwise noted)

PARAMETER		SYMBOL	VALUE	UNIT
Power dissipation		P_D	225	mW
Peak repetitive reverse voltage		V_{RRM}	70	V
Repetitive peak forward current		I_{FRM}	450	mA
Mean forward current		I_O	200	mA
Non-repetitive peak forward surge current	Pulse Width=1 sec	I_{FSM}	0.5	A
	Pulse Width=1 μsec		2	
Thermal resistance form junction to ambient		$R_{\theta JA}$	556	°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		$V_{(BR)}$	70	-	V
Forward voltage	I_F = 50 mA		V_F	-	1.00	V
	I_F = 150 mA			-	1.25	
Reverse leakage current	V_R = 70 V		I_R	-	2.50	μA
Junction capacitance	V_R = 0 V, f = 1 MHz	BAW56, BAV70	C_J	-	2	pF
		BAV99		-	1.5	pF
Reverse revovery time	$I_F = I_R$ = 10 mA, R_L = 100 Ω, I_{RR} = 1 mA		t_{rr}	-	6	ns

RATINGS AND CHARACTERISTICS CURVES

(TA=25℃ unless otherwise noted)

Fig. 1 Typucal Forward Characteristics

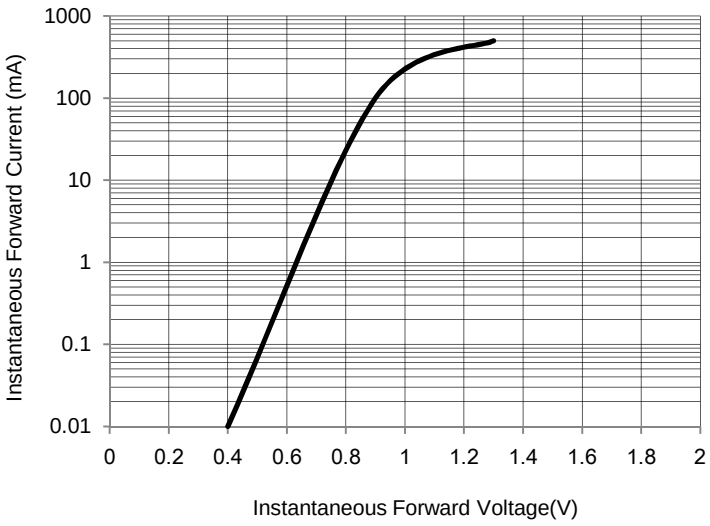


Fig. 2 Leakage Current VS. Junction Temperature

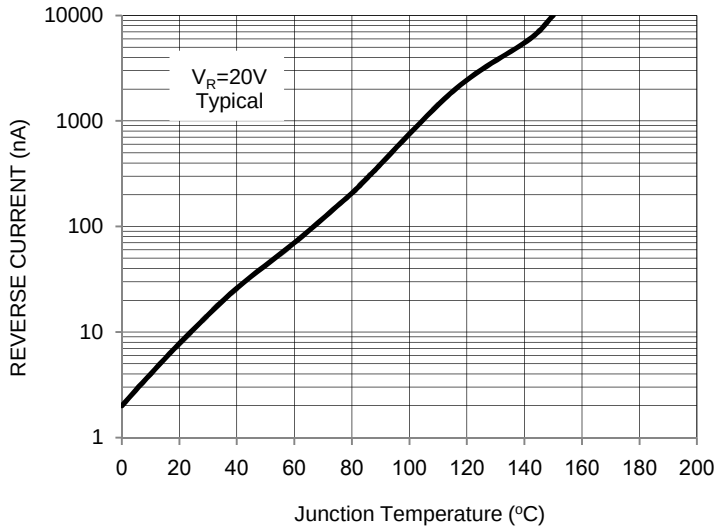
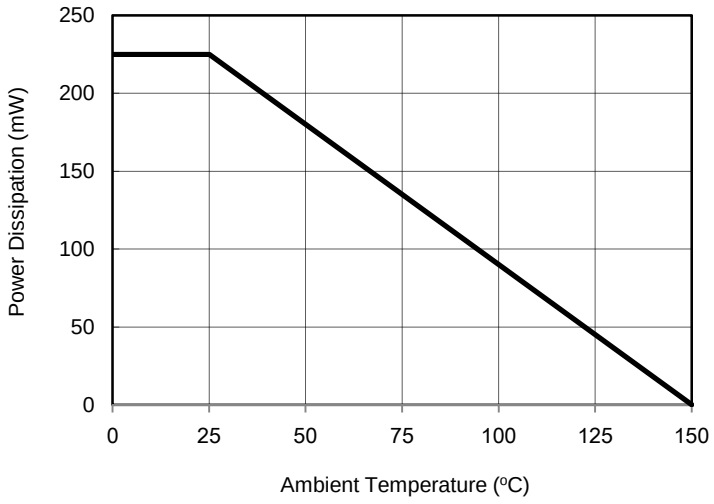


Fig. 3 Power Dissipation Derating Curve



ORDERING INFORMATION

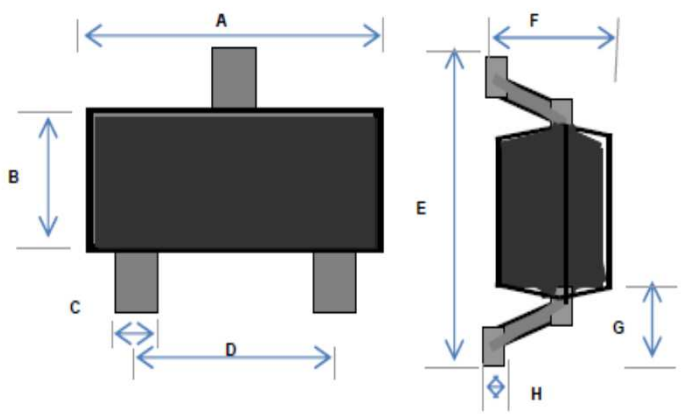
PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING	MARKING
BAW56	(Note)	RF		SOT-23	3K / 7" Reel	A1
BAV70		RF		SOT-23	3K / 7" Reel	A4
BAV99		RF		SOT-23	3K / 7" Reel	A7
BAW56		RF	G	SOT-23	3K / 7" Reel	A1
BAV70		RF	G	SOT-23	3K / 7" Reel	A4
BAV99		RF	G	SOT-23	3K / 7" Reel	A7

Note: Manufacture special control, if empty means no special control requirement.

EXAMPLE

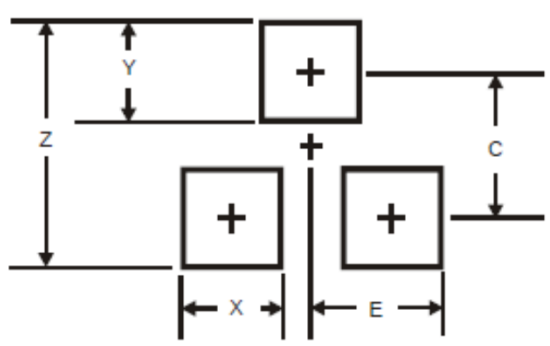
PREFERRED P/N	PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
BAV99 RF	BAV99		RF		
BAV99-B0 RF	BAV99	B0	RF		
BAV99-D0 RF	BAV99	D0	RF		
BAV99 RFG	BAV99		RF	G	Green compound
BAV99-B0 RFG	BAV99	B0	RF	G	Green compound
BAV99-D0 RFG	BAV99	D0	RF	G	Green compound

PACKAGE OUTLINE DIMENSIONS



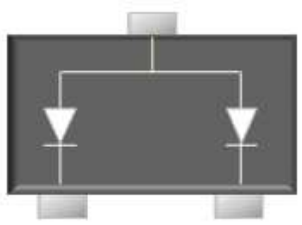
DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.70	3.10	0.106	0.122
B	1.10	1.50	0.043	0.059
C	0.30	0.51	0.012	0.020
D	1.78	2.04	0.070	0.080
E	2.10	2.64	0.083	0.104
F	0.89	1.30	0.035	0.051
G	0.55 REF		0.022 REF	
H	0.1 REF		0.004 REF	

SUGGEST PAD LAYOUT

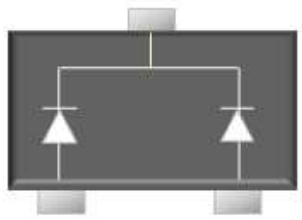


DIM.	Unit (mm)	Unit (inch)
	Typ.	Typ.
Z	2.9	0.114
X	0.8	0.031
Y	0.9	0.035
C	2.0	0.079
E	1.35	0.053

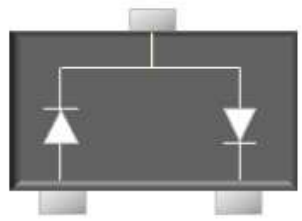
Pin Configuration



BAW56



BAV70



BAV99