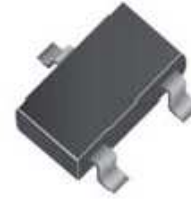


Small Signal Product

**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



**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)

**SOT-23**

<b>MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS</b> (T <sub>A</sub> =25°C unless otherwise noted)			
<b>PARAMETER</b>	<b>SYMBOL</b>	<b>VALUE</b>	<b>UNIT</b>
Power dissipation	P <sub>D</sub>	225	mW
Peak repetitive reverse voltage	V <sub>RRM</sub>	70	V
Repetitive peak forward current	I <sub>FRM</sub>	450	mA
Mean forward current	I <sub>O</sub>	200	mA
Non-repetitive peak forward surge current	I <sub>FSM</sub>	Pulse Width=1 sec	0.5
		Pulse Width=1 µsec	2
Thermal resistance form junction to ambient	R <sub>θJA</sub>	556	°C/W
Junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	- 55 to + 150	°C

<b>PARAMETER</b>	<b>SYMBOL</b>	<b>MIN</b>	<b>MAX</b>	<b>UNIT</b>
Reverse breakdown voltage	V <sub>(BR)</sub>	70	-	V
Forward voltage	V <sub>F</sub>	I <sub>F</sub> = 50 mA	1.00	V
		I <sub>F</sub> = 150 mA	1.25	
Reverse leakage current	I <sub>R</sub>	-	2.50	µA
Junction capacitance	C <sub>J</sub>	V <sub>R</sub> = 0 V, f = 1 MHz	BAW56, BAV70	2
			BAV99	1.5
Reverse recovery time	t <sub>rr</sub>	-	6	ns

Small Signal Product

**RATINGS AND CHARACTERISTICS CURVES**

(TA=25°C unless otherwise noted)

Fig. 1 Typical Forward Characteristics

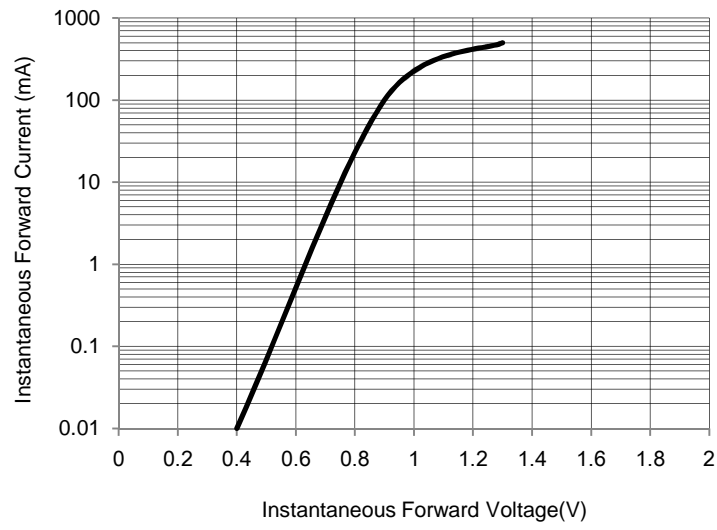


Fig. 2 Leakage Current VS. Junction Temperature

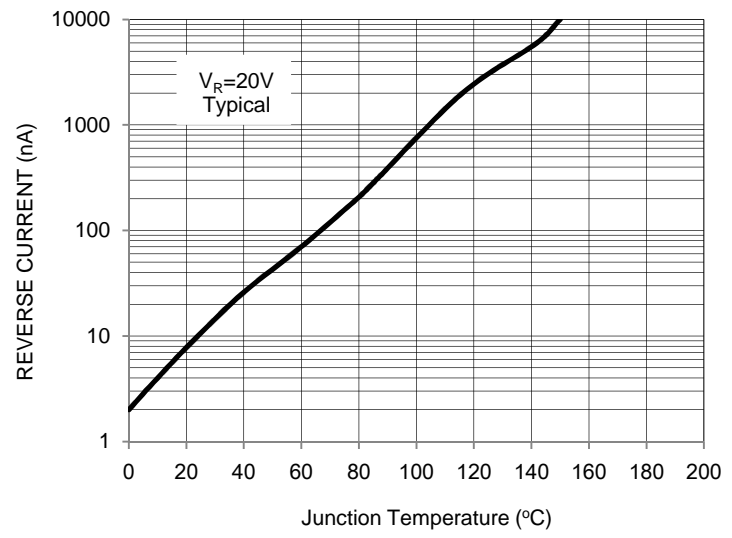
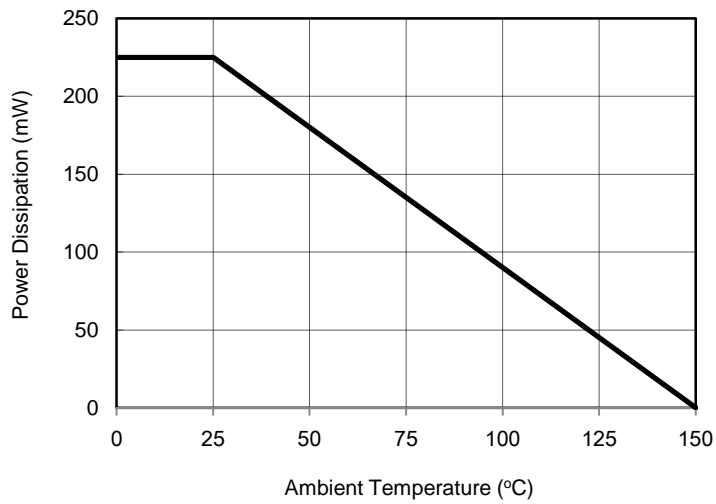


Fig. 3 Power Dissipation Derating Curve



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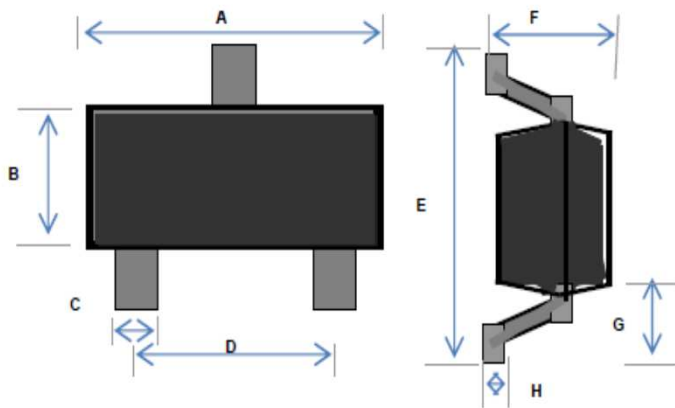
ORDERING INFORMATION						
PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING	MARKING
BAW56	(Note)	RF		SOT-23	3K / 7" Reel	A1
BAV70		RF		SOT-23	3K / 7" Reel	A4
BAV99		RF		SOT-23	3K / 7" Reel	A7
BAW56		RF	G	SOT-23	3K / 7" Reel	A1
BAV70		RF	G	SOT-23	3K / 7" Reel	A4
BAV99		RF	G	SOT-23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

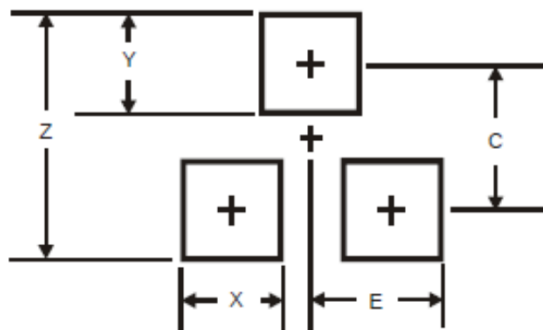
Small Signal Product

**PACKAGE OUTLINE DIMENSIONS**



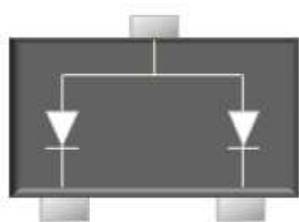
DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.70	3.10	0.106	0.122
B	1.10	1.50	0.043	0.059
C	0.30	0.51	0.012	0.020
D	1.78	2.04	0.070	0.080
E	2.10	2.64	0.083	0.104
F	0.89	1.30	0.035	0.051
G	0.55 REF		0.022 REF	
H	0.1 REF		0.004 REF	

**SUGGEST PAD LAYOUT**

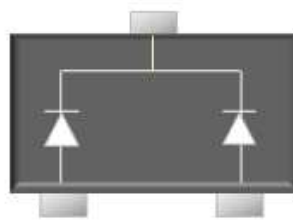


DIM.	Unit (mm)	Unit (inch)
	Typ.	Typ.
Z	2.9	0.114
X	0.8	0.031
Y	0.9	0.035
C	2.0	0.079
E	1.35	0.053

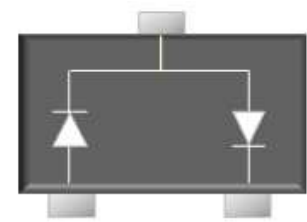
**Pin Configuration**



**BAW56**



**BAV70**



**BAV99**