

## Small Signal Product

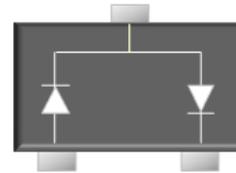
**225mW SMD Switching Diode**
**FEATURES**

- 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
- Packing code with suffix "G" means green compound (halogen-free)


**SOT-23**

**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: 8 mg (approximately)
- Marking code: A7.



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
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>	0.5	A
Pulse Width=1 s			
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

PARAMETER	SYMBOL	MIN	MAX	UNIT
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>	-	1.5	pF
Reverse recovery time	t <sub>rr</sub>	-	6	ns
I <sub>F</sub> = I <sub>R</sub> = 10 mA, R <sub>L</sub> = 100 Ω, I <sub>RR</sub> = 1 mA				

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RATINGS AND CHARACTERISTICS CURVES

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

Fig. 1 Typical Forward Characteristics

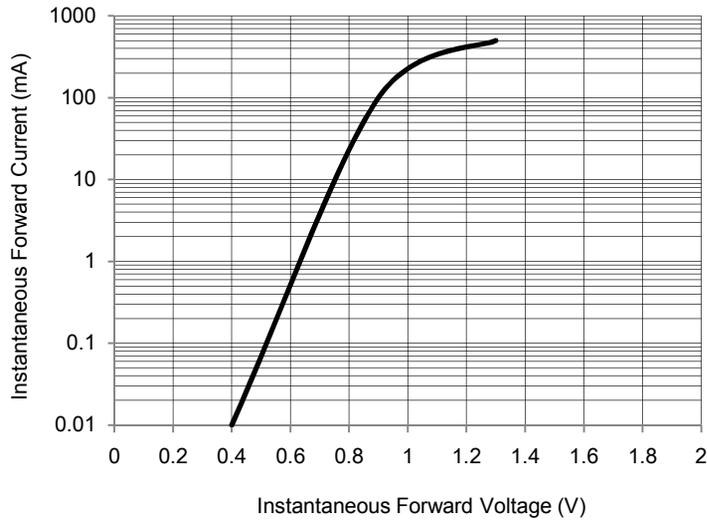


Fig. 2 Leakage Current vs. Junction Temperature

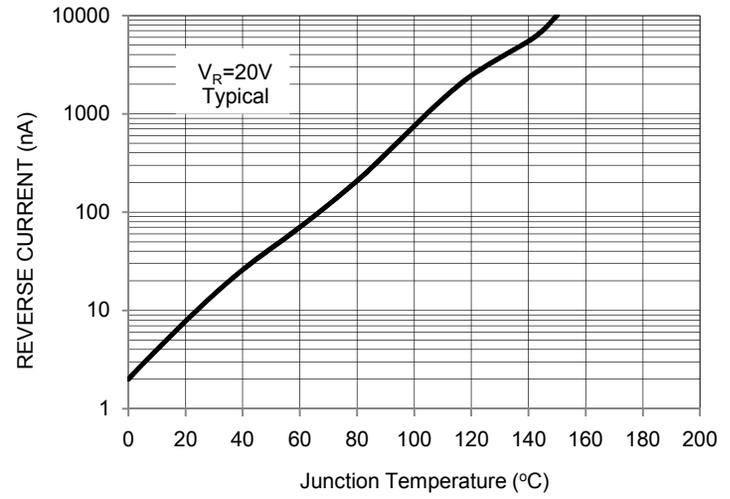
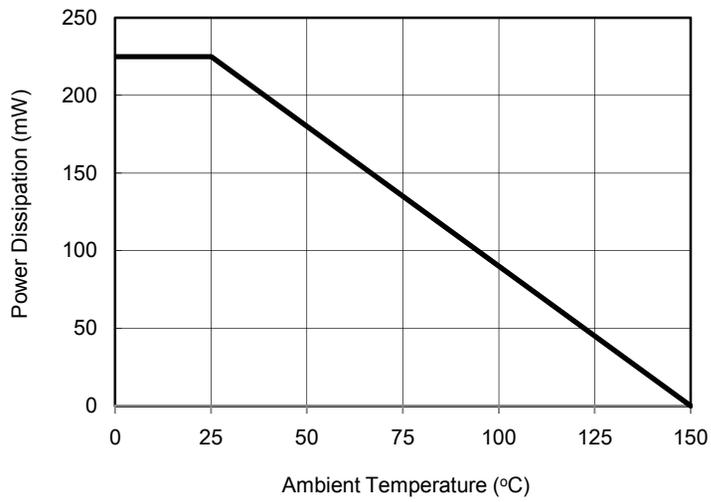


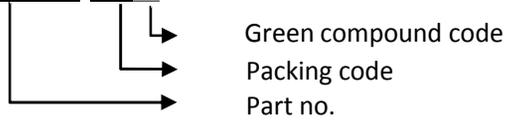
Fig. 3 Power Dissipation Derating Curve



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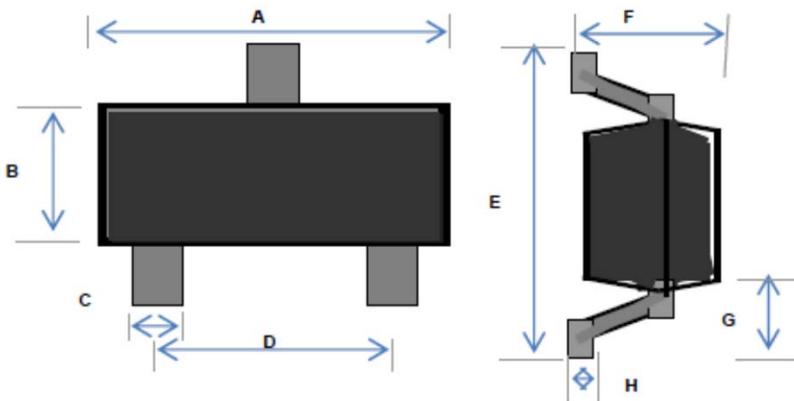
ORDER INFORMATION (EXAMPLE)

**BAV99L RFG**



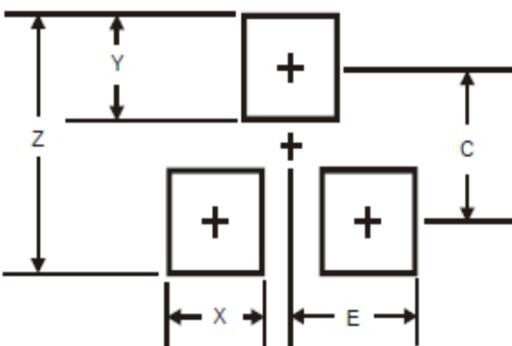
PACKAGE OUTLINE DIMENSIONS

**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	

SUGGEST PAD LAYOUT



DIM.	Unit (mm)	Unit (inch)
	TYP	TYP
Z	2.90	0.114
X	0.80	0.031
Y	0.90	0.035
C	2.00	0.079
E	1.35	0.053

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