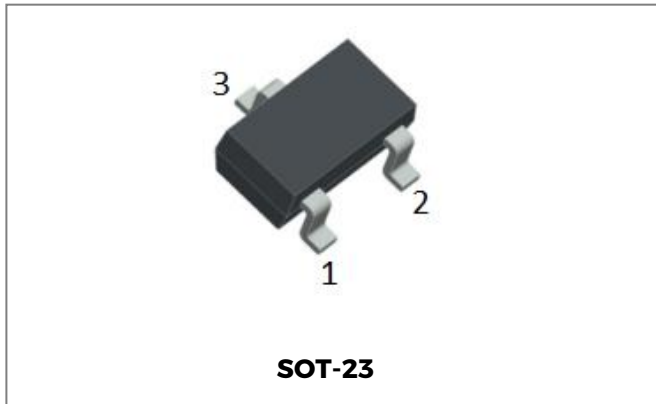


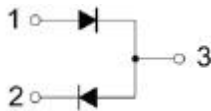
BAV99 SWITCHING DIODE



Features

- High Conductance
- Fast Switching
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose and Switching Application
- Plastic Material -UL Recognition Flammability Classification 94V-0
- "-A" suffix is for Automotive qualified
- This is a Halogen Free Device
- Terminals finish: 100% Pure Tin
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Schematic & Pin Configuration



Mechanical Characteristics

- Case: SOT-23, Molded Plastic
- Terminals: Plated leads Solderable per MIL-STD-202, Method 208
- Mounting Position: Any
- Marking Code: A7

Maximum Ratings @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Limits	Unit
Reverse Voltage	V_R	85	V
Forward Current	I_F	200	mA
Non-Repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	I_{FSM}	2.0	A
Power Dissipation	P_D	225	mW
Typical Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	556	$^\circ\text{C/W}$
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

Electrical Characteristics @T_A=25°C unless otherwise specified

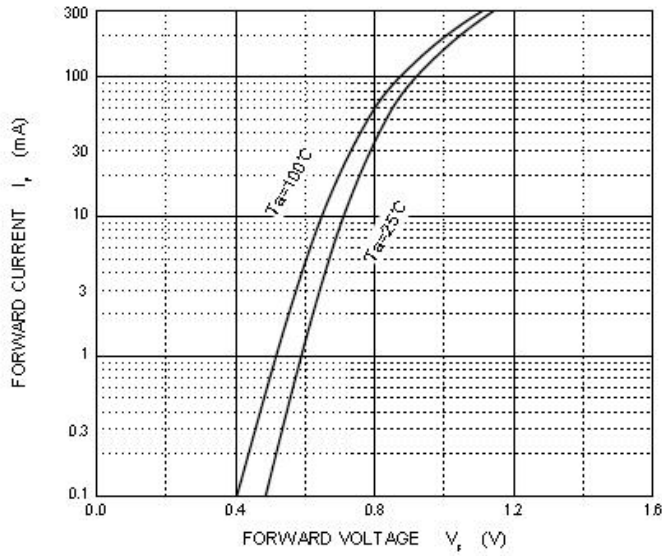
Characteristic	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Reverse Breakdown Voltage*	V _R	85	-	-	V	@I _F =100uA
Forward Voltage*	V _F	-	0.60 0.70 0.82 1.00	0.715 0.855 1 1.25	V	@I _F =1mA @I _F =10mA @I _F =50mA @I _F =150mA
Reverse Leakage Current*	I _R	-	0.02	2.5	uA	@V _R =75V
Capacitance between terminals	C _T	-	1.23	2	pF	V _R =0V, f=1.0MHz
Reverse Recovery Time	t _{rr}	-	-	6.0	ns	I _F =I _R =10mA, I _{RR} =0.1×I _R , R _L =100Ω

* Pulse width < 300 μs, duty cycle < 2%

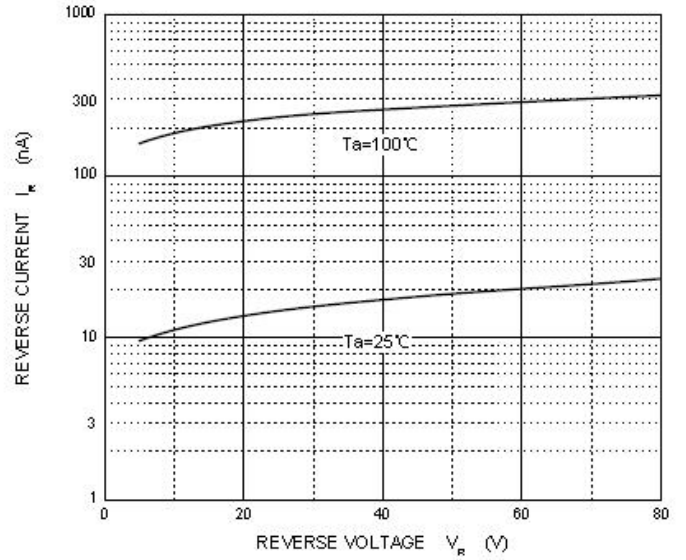
Note: 1. Device mounted on fiberglass substrate 40×40×1.5mm

Ratings and Characteristics Curves

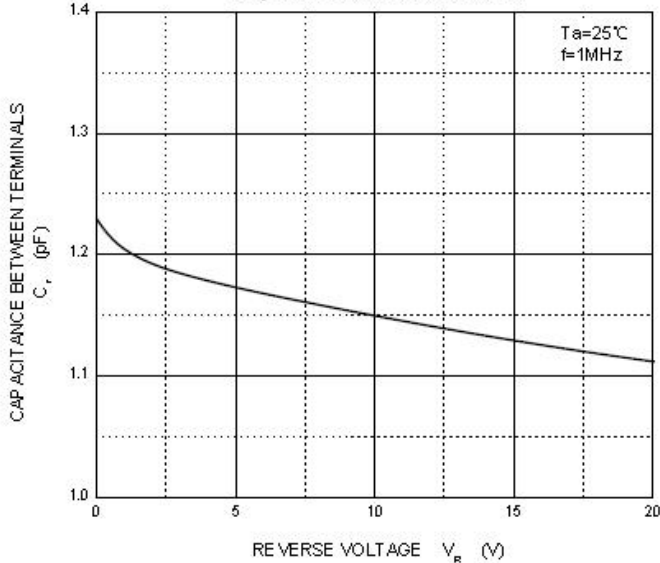
Forward Characteristics



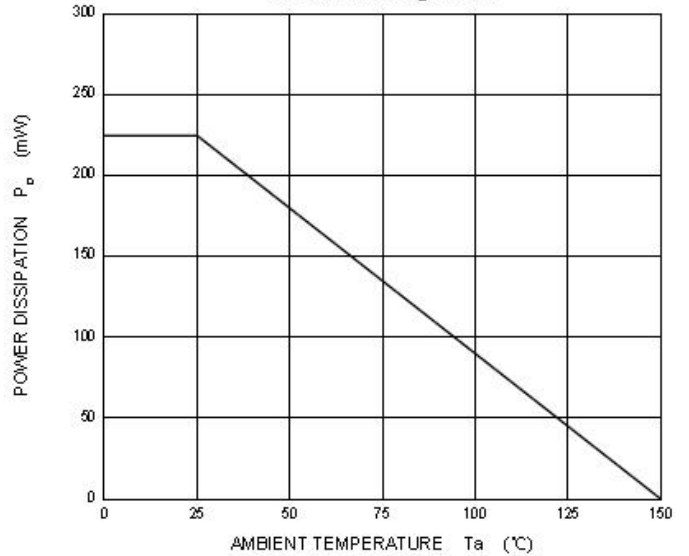
Reverse Characteristics



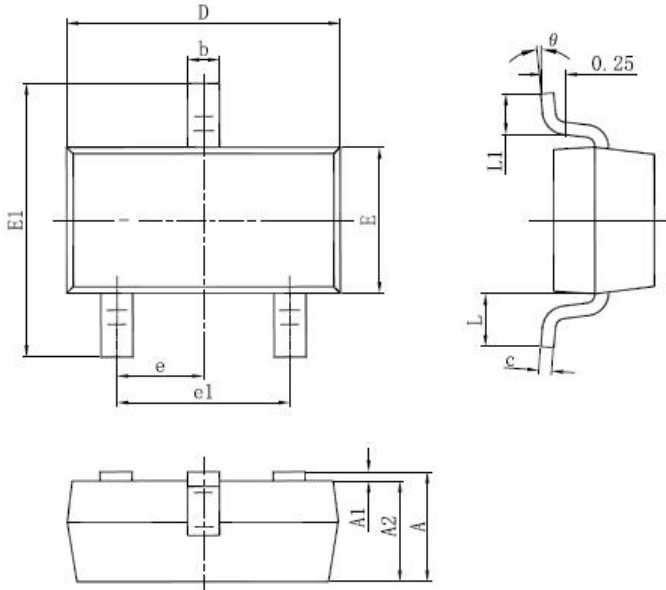
Capacitance Characteristics



Power Derating Curve

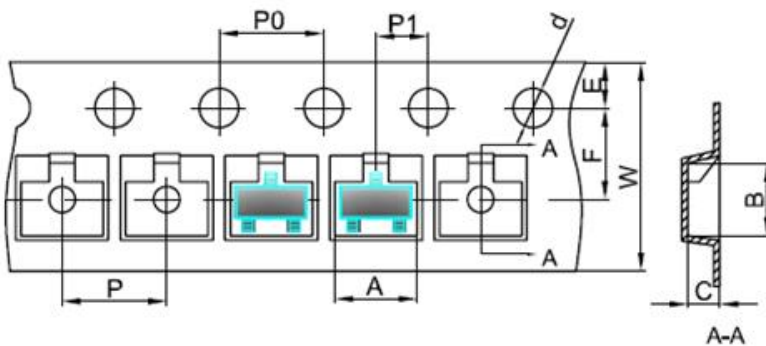


Mechanical Dimensions SOT-23



SYMBOL	Millimeters		Inches	
	MIN.	MAX.	MIN.	MAX.
A	0.890	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.076	0.180	0.003	0.007
D	2.650	3.050	0.104	0.120
E	1.190	1.400	0.047	0.055
E1	2.100	2.640	0.083	0.104
e	0.950 TYP.		0.037 TYP.	
e1	1.780	2.050	0.070	0.081
L	0.550 REF.		0.022 REF.	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

Carrier Tape Specification SOT-23



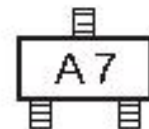
SYMBOL	Millimeters	
	Min.	Max.
A	3.05	3.25
B	2.67	2.87
C	1.12	1.32
d	1.40	1.60
E	1.65	1.85
F	3.40	3.60
P	3.90	4.10
P0	3.90	4.10
P1	1.90	2.10
W	7.90	8.30

Ordering Information

Device	Package	Shipping
BAV99	SOT-23	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel Packaging specification.

Marking Diagram



A7 = Marking Code

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