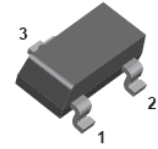
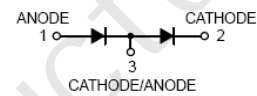


## FEATURES

- Fast switching speed Max:4ns.
- High conductance.
- Connected in series.
- Surface mount package ideally suited for automatic insertion.
- MSL1.



**SOT-23**



## APPLICATIONS

- High-speed switching in thick and thin-film circuits.

## ORDERING INFORMATION

Type No.	Marking	Package Code
BAV99	A7	SOT-23

## MAXIMUM RATING @ Ta=25°C unless otherwise specified

Parameter	Symbol	Value	Unit
Reverse voltage	$V_R$	75	V
Forward current	$I_F$	215	mA
Peak forward surge current	$I_{FM}$	500	mA
Peak repetitive reverse voltage	$V_{RRM}$	75	V
Repetitive peak forward current	$I_{FRM}$	450	mA
Peak forward surge current	$I_{FSM}$	2.0	A
@t=1.0μs		1.0	
@t=1.0ms		0.5	
Power dissipation	$P_d$	350	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	556	°C/W
Operating and storage temperature range	$T_j, T_{STG}$	-65 to +150	°C

**ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

Parameter	Typical	Test conditions	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)}$	$I_R=2.5\mu A$	75		V
Reverse voltage leakage current	$I_R$	$V_R=20V$		25	nA
		$V_R=75V$		2.5	$\mu A$
		$V_R=25V T_j=150^\circ C$		30	$\mu A$
		$V_R=75V T_j=150^\circ C$		50	$\mu A$
Forward voltage	$V_F$	$I_F=1mA$		715	mV
		$I_F=10mA$		855	
		$I_F=50mA$		1000	
		$I_F=150mA$		1250	
Diode capacitance	$C_D$	$V_R=0V f=1MHz$		2.0	pF
Reverse recovery time	$t_{rr}$	$I_F=I_R=10mA,$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$		4.0	nS

**TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

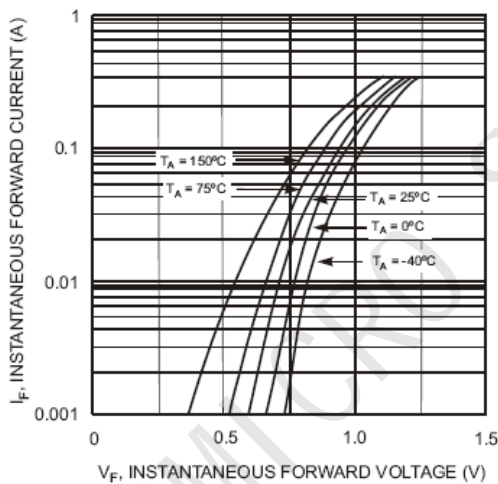


Fig. 1 Forward Characteristics

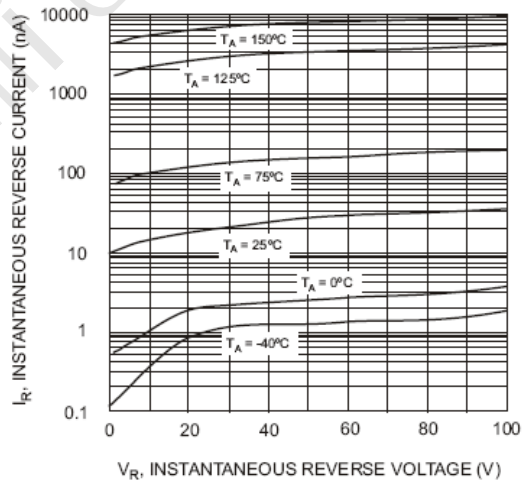


Fig. 2 Typical Reverse Characteristics

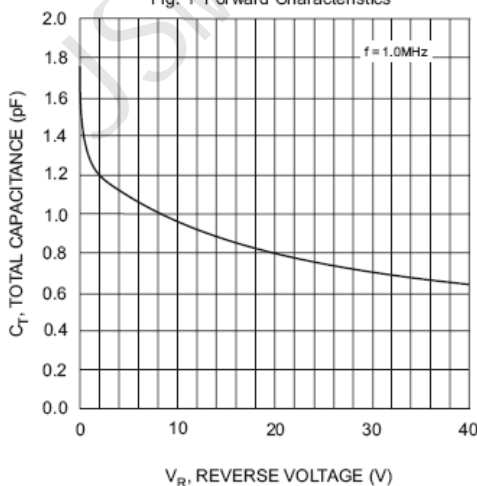


Fig. 3 Typical Capacitance vs. Reverse Voltage

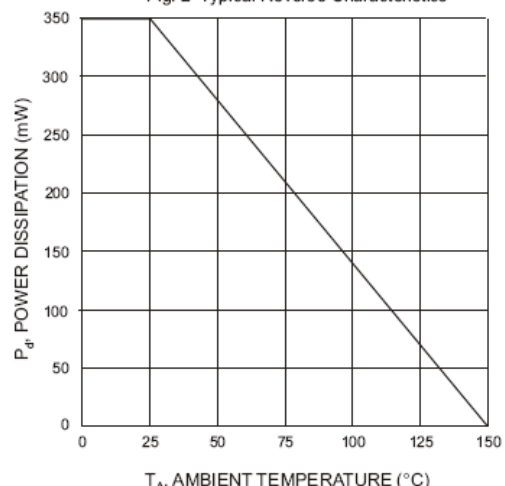
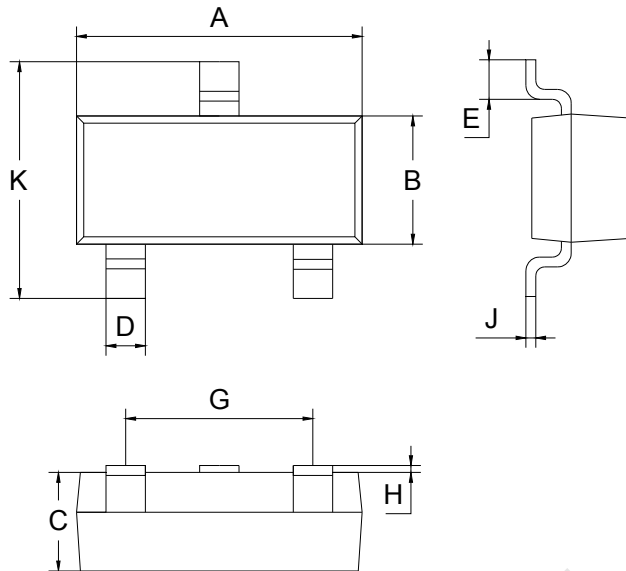


Fig. 4 Power Derating Curve

## PACKAGE OUTLINE

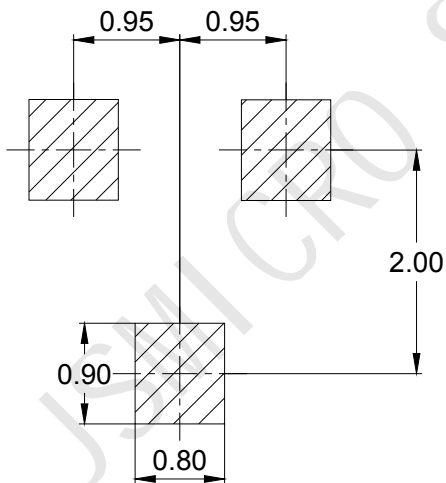
Plastic surface mounted package

SOT-23



SOT-23		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	0.9	1.1
D	0.3	0.5
E	0.35	0.48
G	1.80	2.00
H	0.02	0.1
J	0.05	0.15
K	2.20	2.60
All Dimensions in mm		

## SOLDERING FOOTPRINT



Unit : mm

## PACKAGE INFORMATION

Device	Package	Shipping
BAV99	SOT-23	3000/Tape&Reel