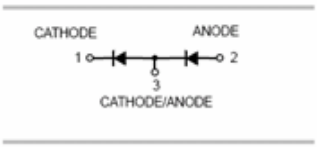
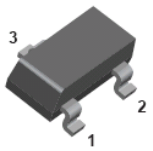
Dual series switching diode **BAV99R**

FEATURES

Lead-free

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





SOT-23

APPLICATIONS

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

ORDERING INFORMATION

Type No.	Marking	Package Code
BAV99R	F7	SOT-23

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Parameter	**Symbol**	**Value**	**Unit**
Reverse voltage	V_R	70	V
Forward current	I_F	215	mA
Peak forward surge current	I_{FM}	500	mA
Peak repetitive reverse voltage	V_{RRM}	70	V
Average rectified forward current	$I_{F(AV)}$	715	mA
Repetitive peak forward current	I_{FRM}	450	mA
Peak forward surge current @t=1.0μs @t=1.0ms @t=1.0s	I_{FSM}	2.0 1.0 0.5	A
Power dissipation	P_d	225	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	556	℃/W
Operating and storage temperature range	T_j,T_{STG}	-65 to +150	℃

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ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	Typical	Test conditions	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)}$	I_R=2.5μA	75		V
Reverse voltage leakage current	I_R	V_R=20V		25	nA
		V_R=75V		2.5	μA
		V_R=25V T_j=150℃		30	μA
		V_R=75V T_j=150℃		50	μA
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×I_R,R_L=100Ω		4.0	nS

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

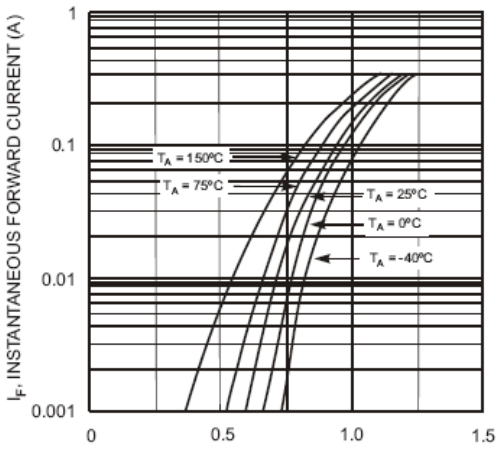

Fig. 1 Forward Characteristics

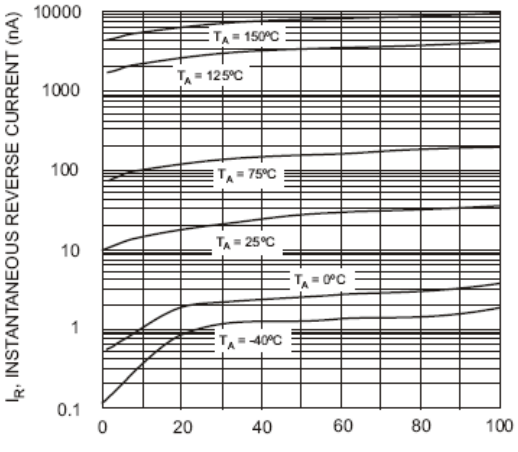

Fig. 2 Typical Reverse Characteristics

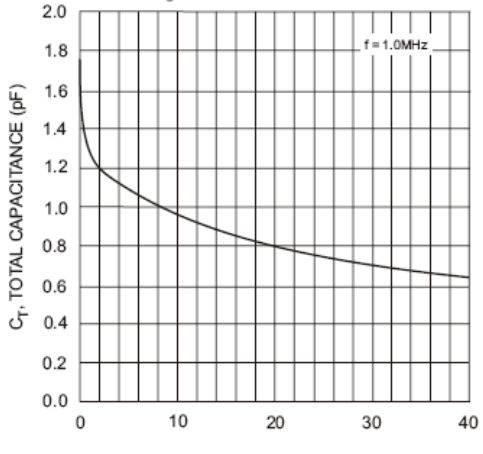

Fig. 3 Typical Capacitance vs. Reverse Voltage

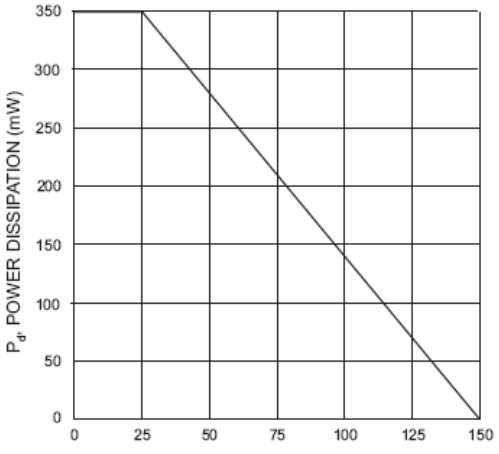

Fig. 4 Power Derating Curve

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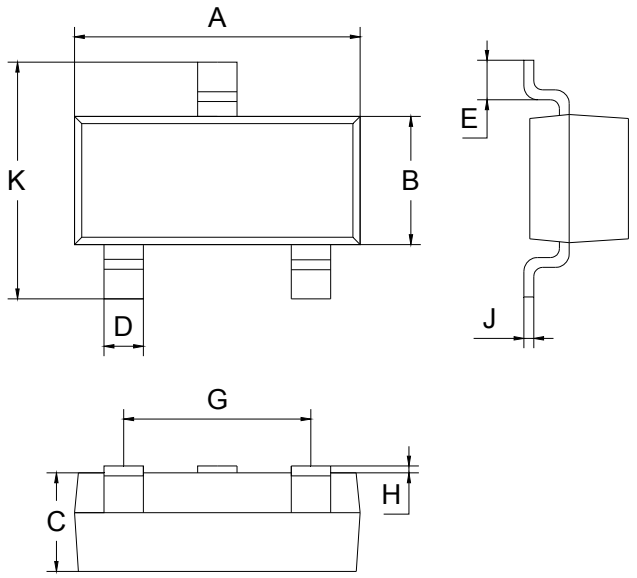
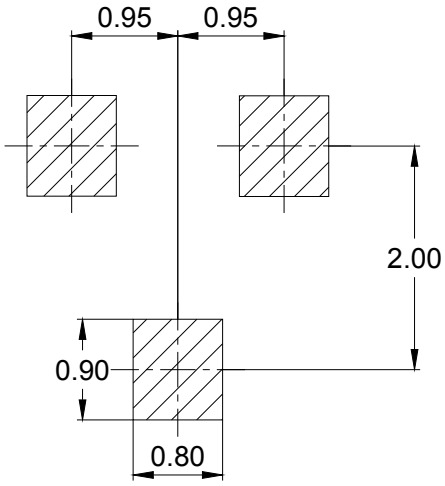
PACKAGE OUTLINE

Plastic surface mounted package SOT-23



SOT-23		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	1.0 Typical	
D	0.4 Typical	
E	0.35	0.48
G	1.80	2.00
H	0.02	0.1
J	0.1 Typical	
K	2.20	2.60
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
BAV99R	SOT-23	3000/Tape&Reel