

Dual series switching diode

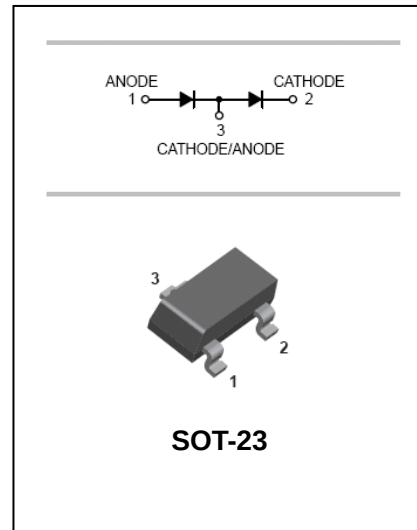
BAV99

FEATURES

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



Lead-free



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	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	I_{FSM}	2.0	A
@t=1.0ms		1.0	
@t=1.0s		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



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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	μA
		$V_R=25V T_j=150^\circ C$		30	μA
		$V_R=75V T_j=150^\circ C$		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}	$I_F=I_R=10mA$, $I_{rr}=0.1 \times I_R, R_L=100\Omega$		4.0	nS

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

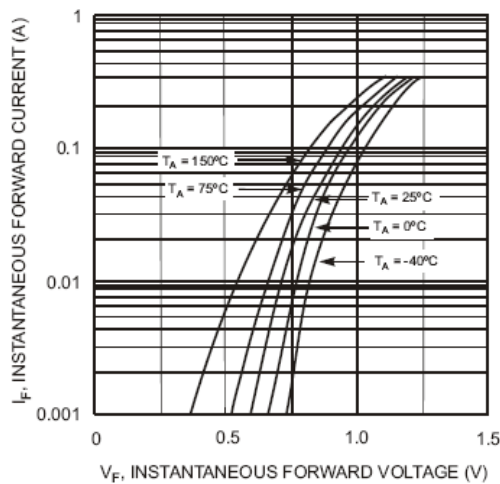


Fig. 1 Forward Characteristics

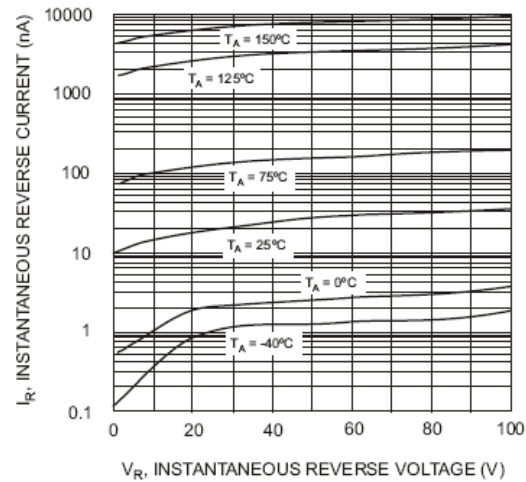


Fig. 2 Typical Reverse Characteristics

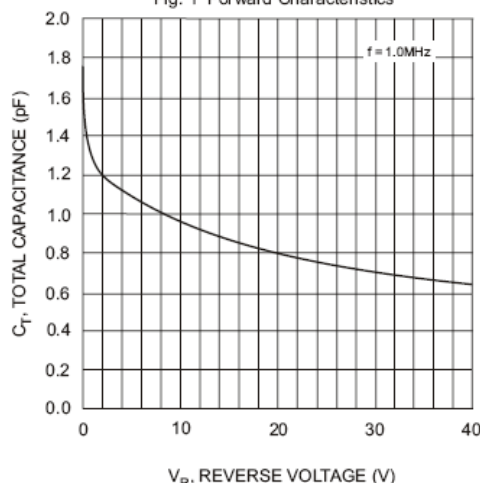


Fig. 3 Typical Capacitance vs. Reverse Voltage

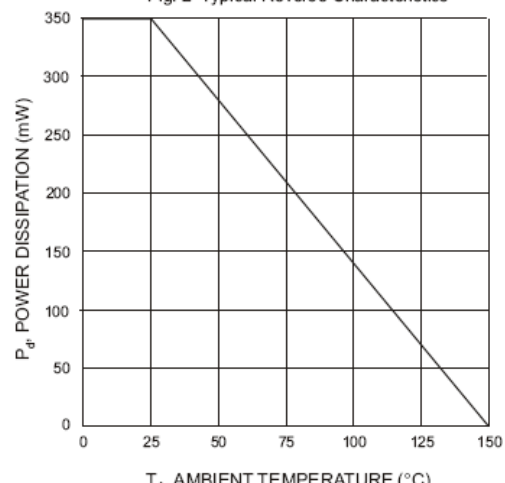


Fig. 4 Power Derating Curve



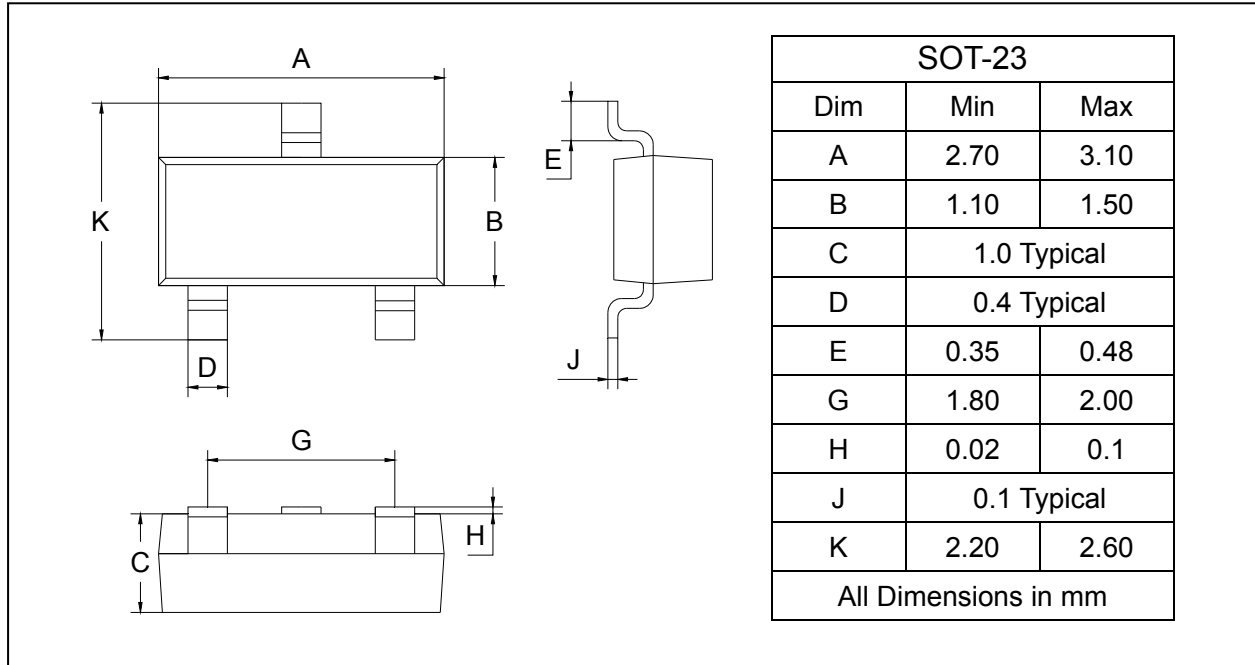
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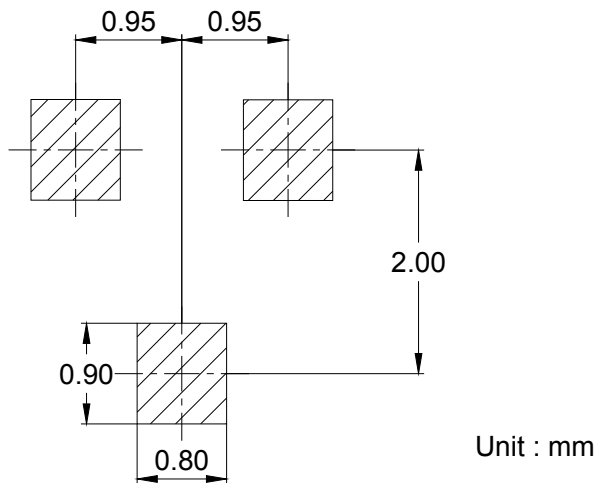
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

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