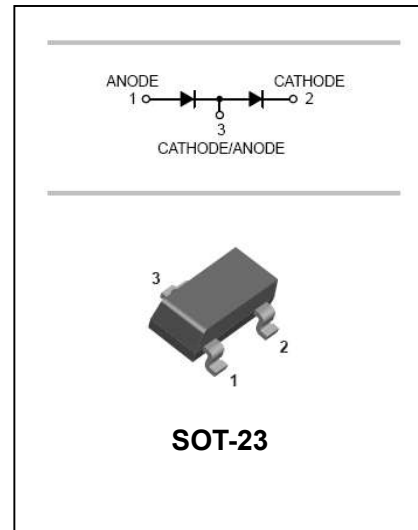


Dual series switching diode

BAV99

FEATURES

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



APPLICATIONS

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

ORDERING INFORMATION

Type No.	Marking	Package Code
BAV99□	A7	SOT-23

□: none is for Lead Free package;

“G” is for Halogen Free package.

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}	@t=1.0μs 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
Thermal resistance junction to case	$R_{\theta JC}$	250	°C/W
Operating temperature	T_J	150	°C
Storage temperature range	T_{STG}	-65 to +150	°C

Dual series switching diode

BAV99

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

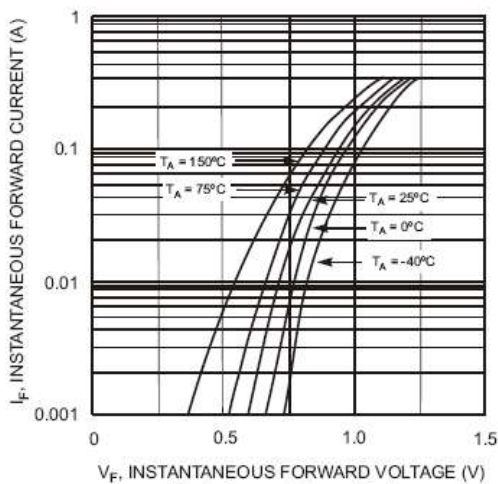


Fig. 1 Forward Characteristics

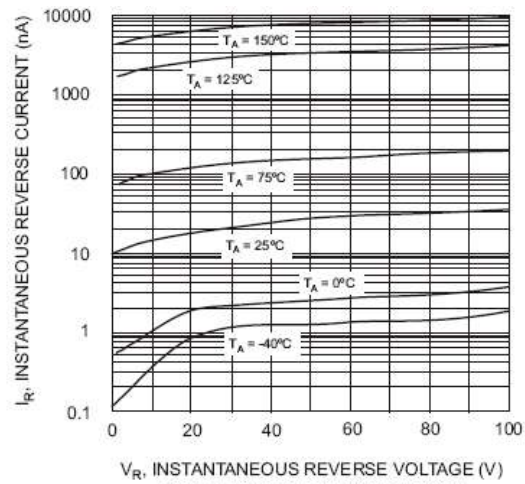


Fig. 2 Typical Reverse Characteristics

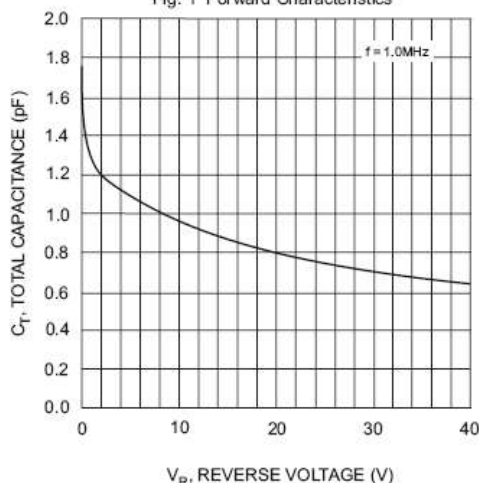


Fig. 3 Typical Capacitance vs. Reverse Voltage

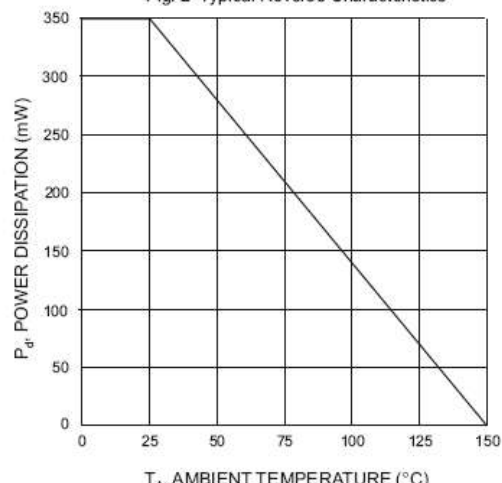


Fig. 4 Power Derating Curve

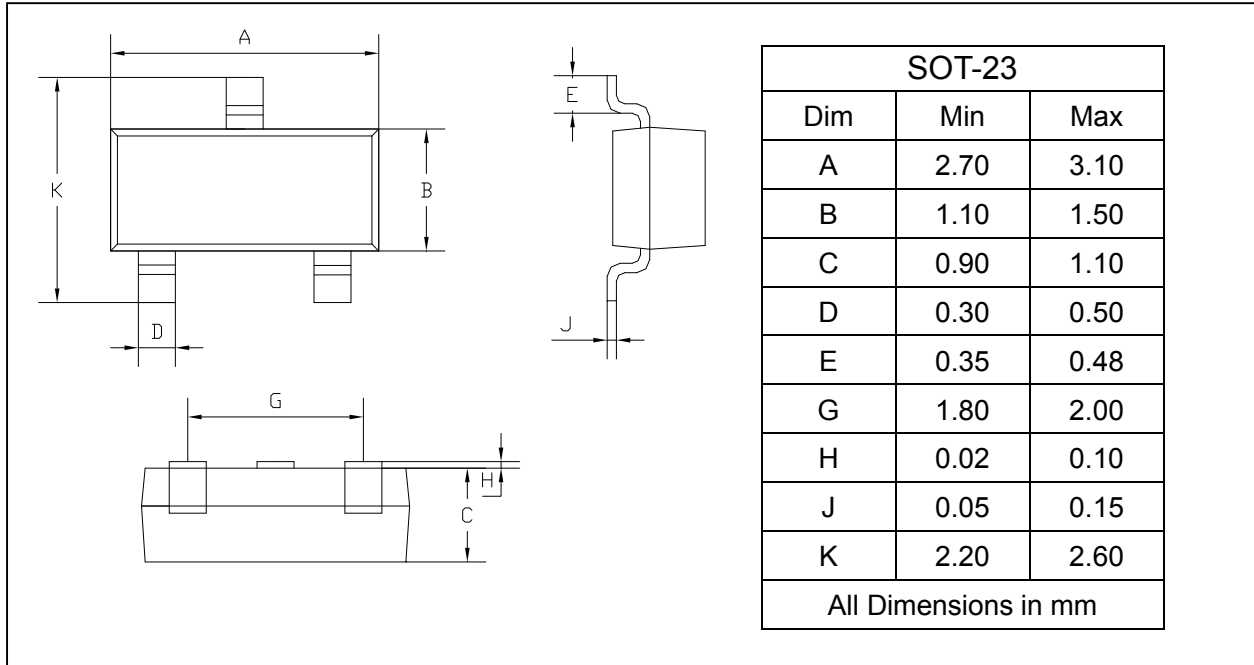
Dual series switching diode

BAV99

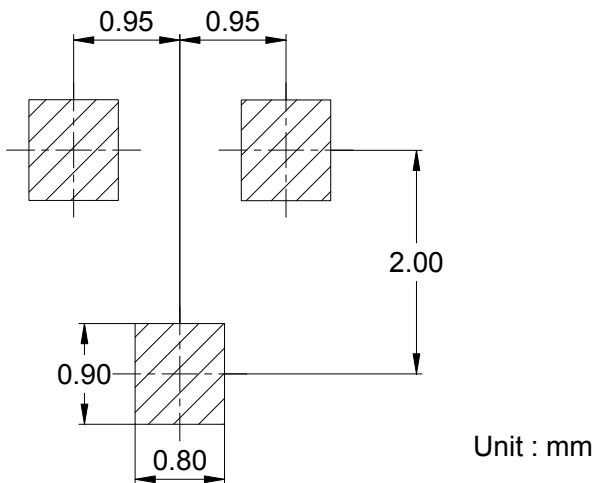
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

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