

Surface mount switching diode

BAV23/A/C/S

FEATURES

- Fast switching speed.
- Surface mount package ideally suited for Automatic insertion.
- For general purpose switching applications.
- High conductance.

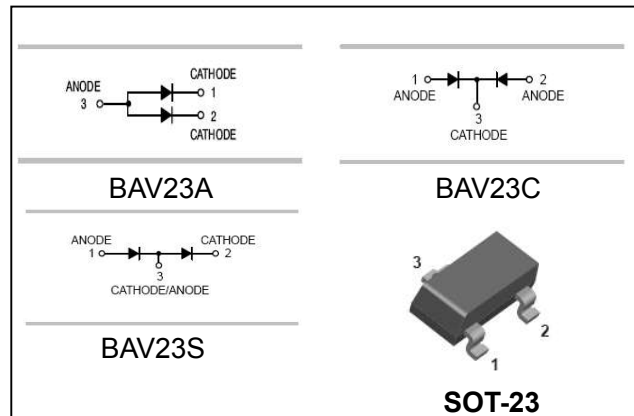


Lead-free

HF

APPLICATIONS

- High speed switching application.



ORDERING INFORMATION

Type No.	Marking	Package Code
BAV23A□	KT7	SOT-23
BAV23C□	KT6	SOT-23
BAV23S□	KL31	SOT-23

□: none is for Lead Free package;

“G” is for Halogen Free package.

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	250	V
Working peak reverse voltage DC reverse voltage	V_{RWM} V_R	200	V
RSM Reverse Voltage	$V_{R(RMS)}$	141	V
Average Rectified Output Current	I_O	225	mA
Forward Continuous Current(Max.)	I_{FM}	400	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0μs @ t = 100μs @ t = 10ms	I_{FSM}	9.0 3.0 1.7	A
Repetitive Peak Forward Surge Current	I_{FRM}	625	mA
Power Dissipation	P_d	350	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	357	°C/W

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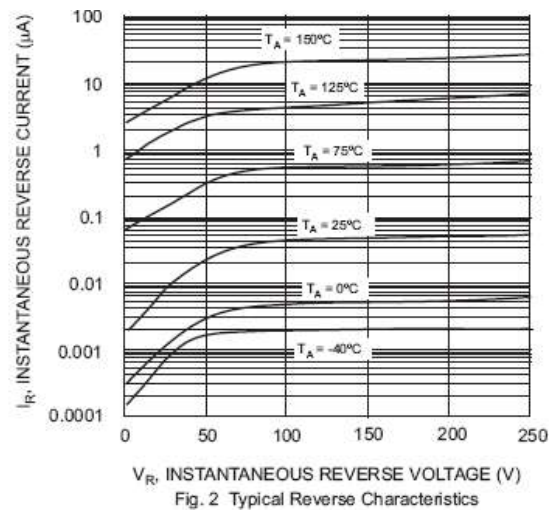
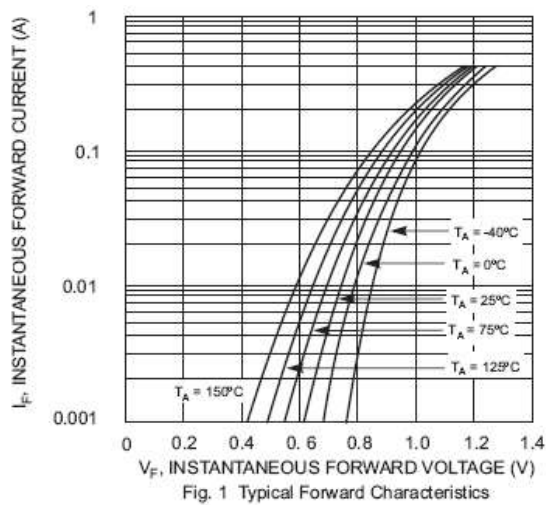
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Operating Junction Temperature Range	T_j	150	°C
Storage Temperature Range	T_{STG}	-65 to +150	°C

ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Min	MAX	UNIT	Test Condition
Reverse breakdown Voltage	$V_{(BR)R}$	250	-	V	$I_R=100\mu\text{A}$
Reverse Leakage Current	I_R	-	100	nA	$V_R=200\text{V}$
Forward voltage	V_F	-	1 1.25	V	$I_F=100\text{mA}$ $I_F=200\text{mA}$
Total Capacitance	C_T	-	5.0	pF	$V_R=0\text{V}, f=1.0\text{MHz}$
Reverse Recovery Time	t_{rr}	-	50	ns	$I_F=I_R=30\text{mA}, t_{rr}=0.1 \cdot I_R$ $R_L=100\Omega$

TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified



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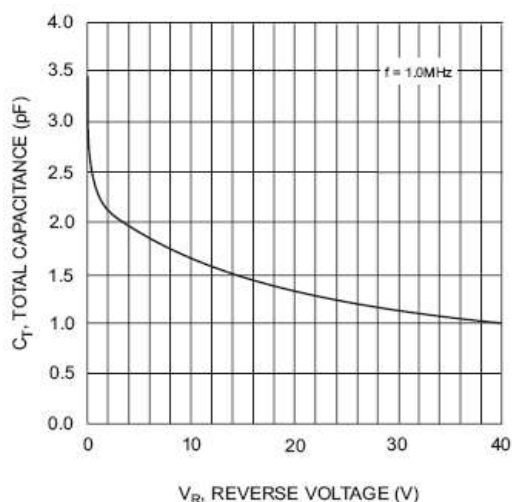


Fig. 3 Typical Capacitance vs. Reverse Voltage

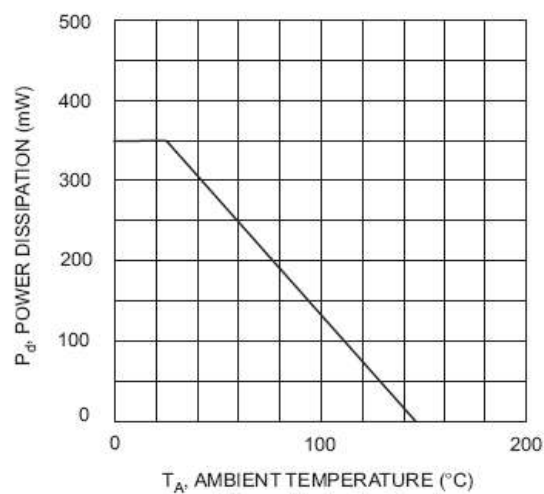
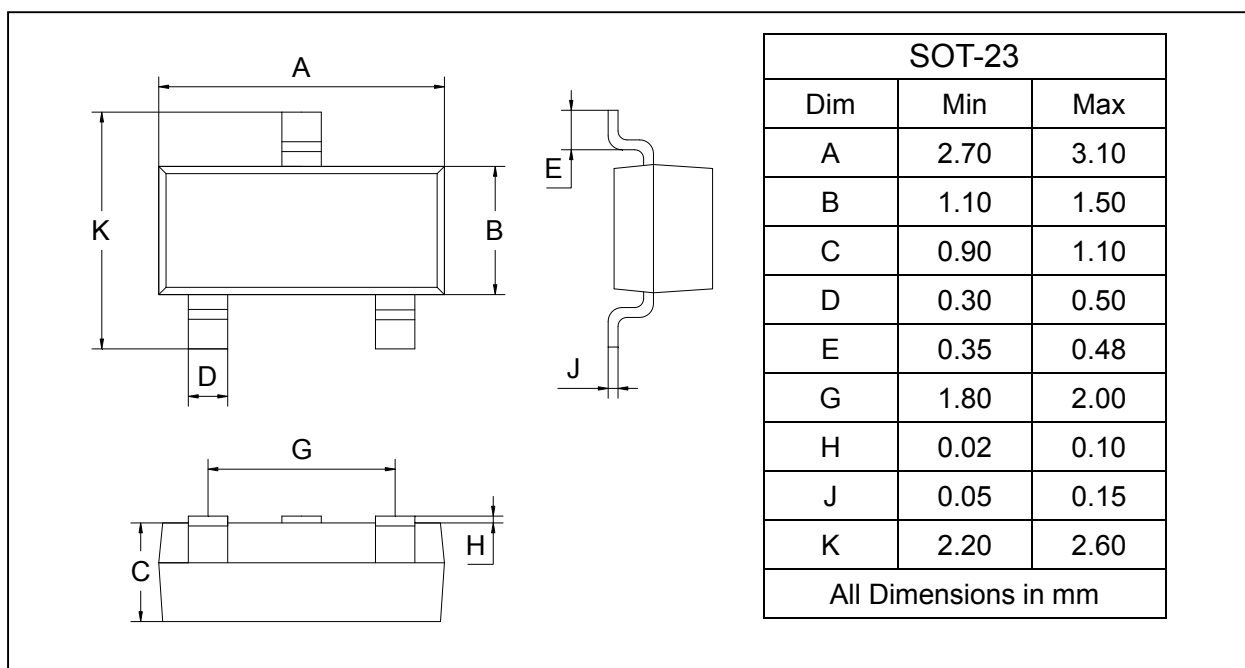


Fig. 4 Power Dissipation Derating

PACKAGE OUTLINE

Plastic surface mounted package

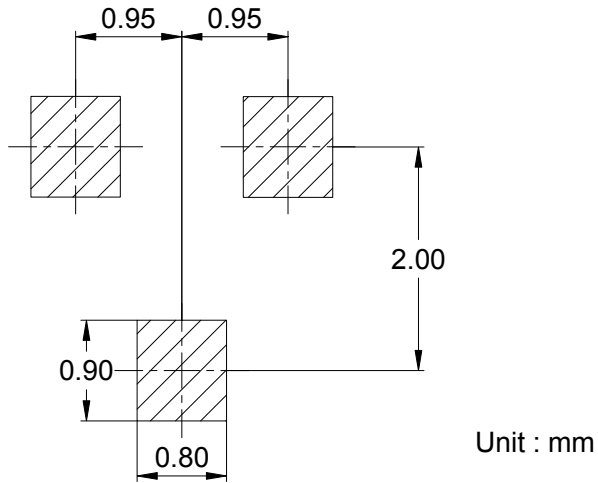
SOT-23



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SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
BAV23A/C/S	SOT-23	3000/Tape&Reel