

BAS23A / BAS23C / BAS23S

Fast Switching Diode

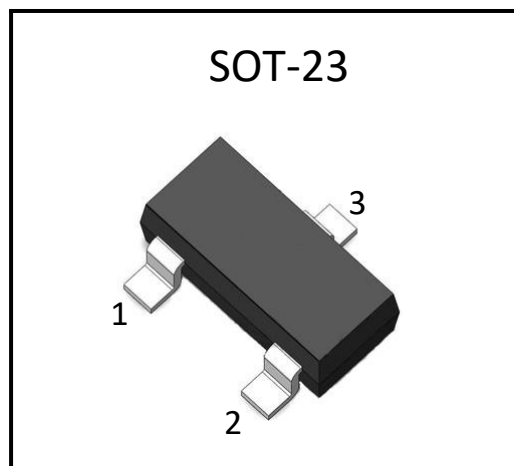
Features

- Fast Switching Speed
- For General Purpose Switching Applications
- High Conductance

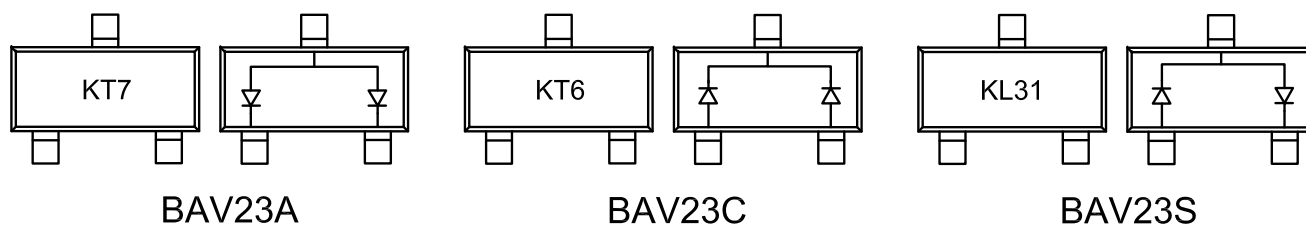
Description

- SOT-23 Small Outline Plastic Package
- Mounting Position: Any

Package



Marking & Internal Wiring



Ordering information

Order code	Package	Marking	Base qty	Delivery mode
BAV23A	SOT-23	KT7	3K	Tape and reel
BAV23C	SOT-23	KT6	3K	Tape and reel
BAV23S	SOT-23	KL31	3K	Tape and reel

Maximum Ratings @T_A=25°C unless otherwise noted

Symbol	Parameter	Value	Unit
V _{RRM}	Peak Repetitive Peak Reverse Voltage	250	V
V _{RWM}	Working Peak Reverse Voltage	175	V
I _O	Average Rectified Output Current	225	mA
I _{FRM}	Repetitive Peak Forward Surge Current	625	mA
I _{FSM}	Non-Repetitive Peak Forward Surge Current @t=8.3ms	1.7	A
P _d	Power Dissipation	350	mV
R _{θJA}	Thermal Resistance Junction to Ambient	357	°C/W
T _J , T _{STG}	Operation Junction and Storage Temperature Range	-50 to 150	°C



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Electrical Characteristics @T_A=25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Limits		Unit
			Min.	Max.	
V _R	Reverse Breakdown Voltage	I _R =100uA	250	–	V
I _R	Reverse Leakage Current	V _R =250V	–	0.1	uA
V _F	Forward Voltage	I _F =100mA	–	1.0	V
		I _F =200mA	–	1.25	
C _D	Diode capacitance	V _R =0V, f=1MHz	–	5	PF
T _{RR}	Reverse Recovery Time	I _F =I _R =30mA, I _{rr} =0.1X I _R , R _L =100Ω	–	50	nS



Typical Performance Characteristics ($T_J = 25^\circ\text{C}$, unless otherwise noted)

Figure 1: Forward Characteristics

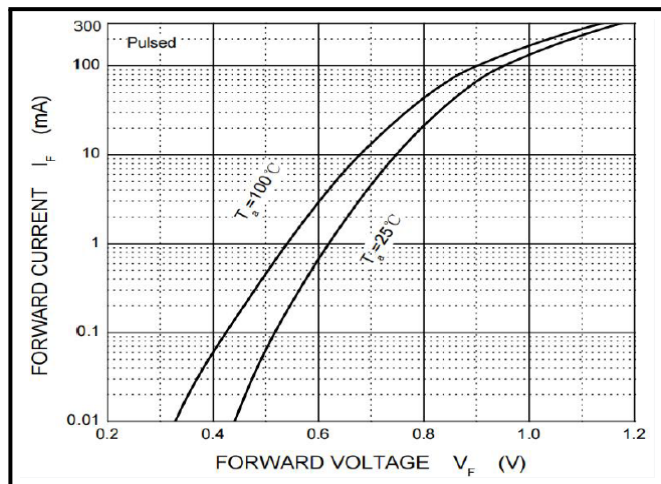


Figure 2: Reverse Characteristics

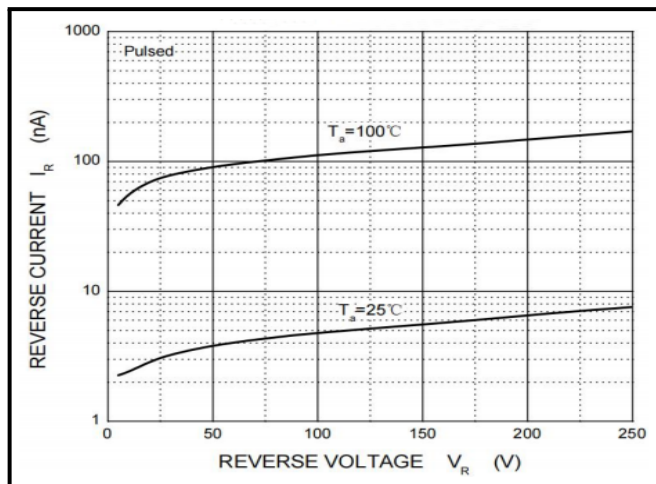


Figure 3: Capacitance Characteristics

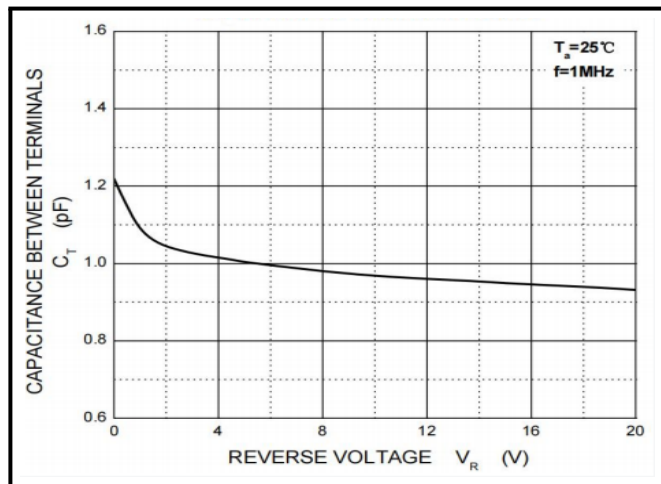
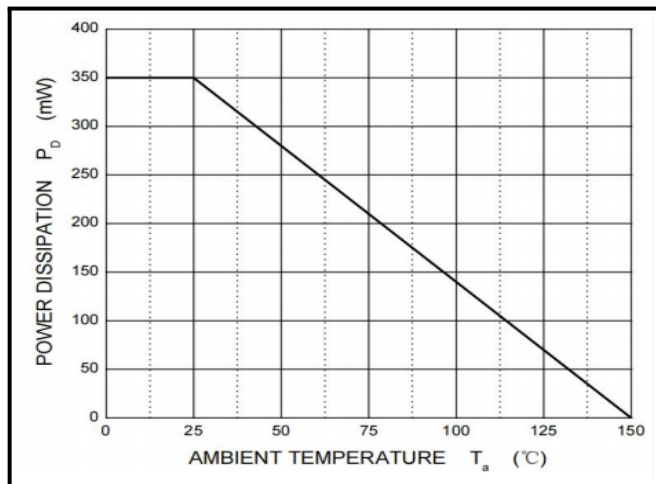


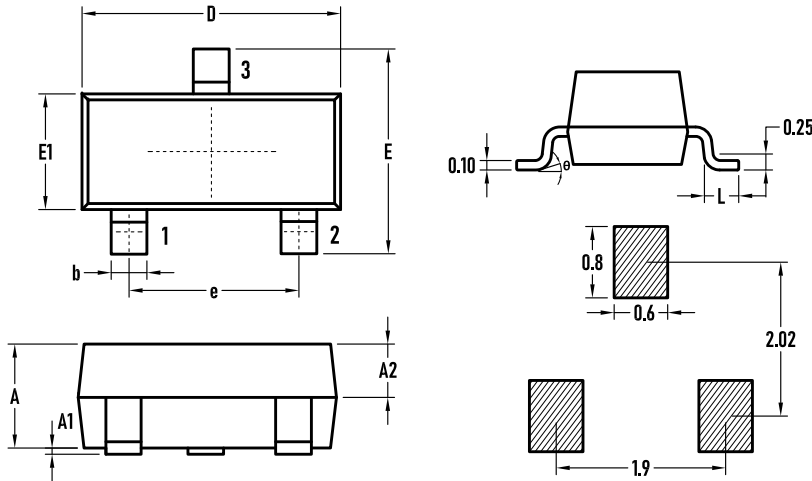
Figure 4: Power Derating Curve



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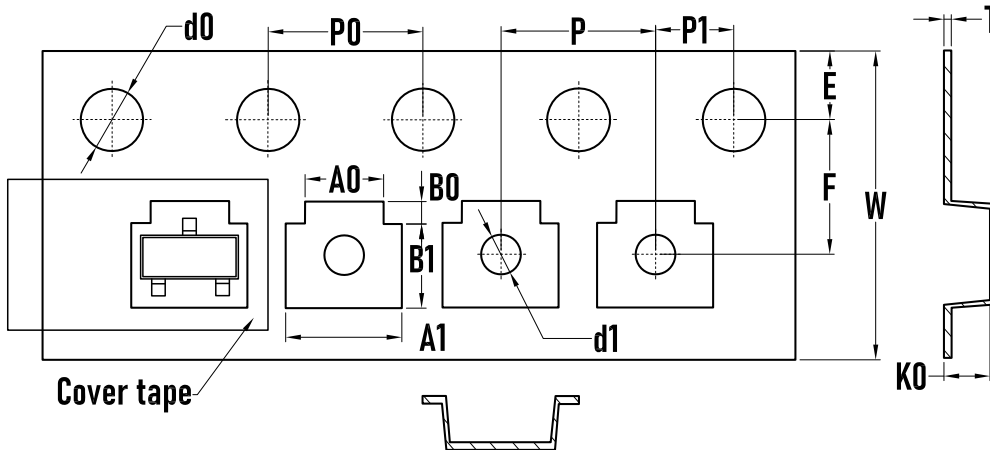
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Outline Drawing - SOT-23



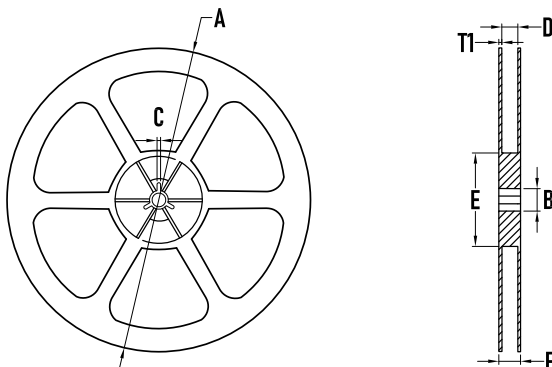
SYMBOL	MILLIMETER		
	MIN.	Typ.	MAX.
A	0.95	1.00	—
A1	0.02	0.06	0.10
A2	—	0.60	—
D	2.85	2.90	2.95
b	0.37	0.40	0.43
E	2.35	2.40	2.45
E1	1.25	1.30	1.35
e	1.85	1.90	1.95
L	0.35	0.40	0.48
θ	0	—	6°

Packaging Tape - SOT-23



SYMBOL	MILLIMETER
A0	2.10±0.10
A1	3.10±0.10
B0	0.65±0.10
B1	2.75±0.10
d0	1.55±0.10
d1	1.00±0.05
E	1.75±0.10
F	3.50±0.10
K0	1.10±0.10
P	4.00±0.10
P0	4.00±0.10
P1	2.00±0.10
W	8.00±0.30
T	0.20 ±0.05

Packaging Reel



SYMBOL	MILLIMETER
A	177.8±0.2
B	3.1
C	13.50
D	9.6±0.3
E	75±0.2
F	12.3±0.3
T1	1.0±0.2
Quantity	3000PCS

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Specifications are subject to change without notice.

Please refer to <http://www.born-tw.com> for current information.

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