

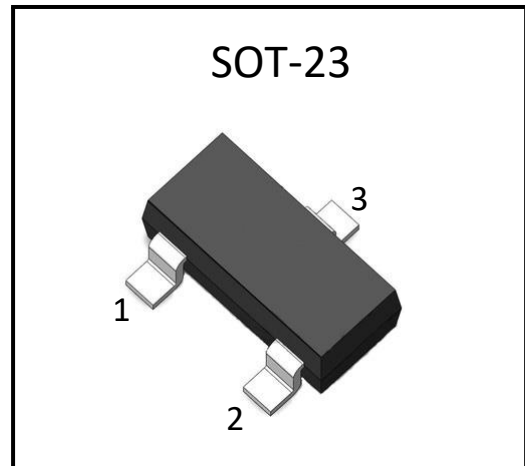
### Features

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

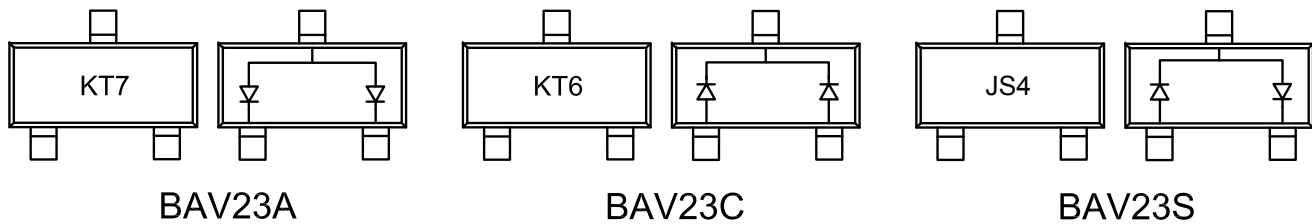
### Description

- 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	JS4	3K	Tape and reel

### Maximum Ratings @T<sub>A</sub>=25°C unless otherwise noted

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





## BAS23A / BAS23C / BAS23S

Fast Switching Diode

Electrical Characteristics @ $T_A=25^\circ\text{C}$  unless otherwise noted

Symbol	Parameter	Test Conditions	Limits		Unit
			Min.	Max.	
$V_R$	Reverse Breakdown Voltage	$I_R=100\mu\text{A}$	250	–	V
$I_R$	Reverse Leakage Current	$V_R=250\text{V}$	–	0.1	$\mu\text{A}$
$V_F$	Forward Voltage	$I_F=100\text{mA}$	–	1.0	V
		$I_F=200\text{mA}$	–	1.25	
$C_D$	Diode capacitance	$V_R=0\text{V}, f=1\text{MHz}$	–	5	PF
$T_{RR}$	Reverse Recovery Time	$I_F=I_R=30\text{mA}, I_{tr}=0.1 \times I_R, R_L=100\Omega$	–	50	nS



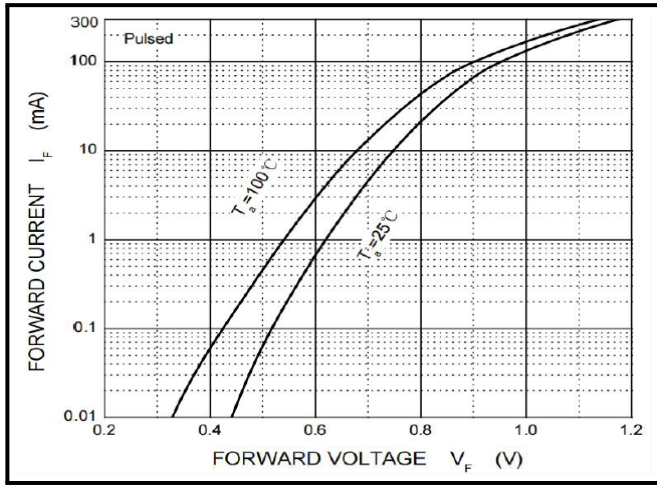


**BAS23A / BAS23C / BAS23S**

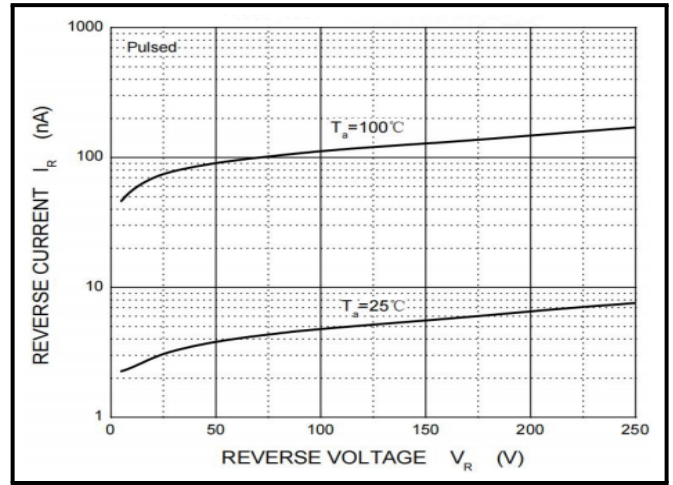
Fast Switching Diode

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

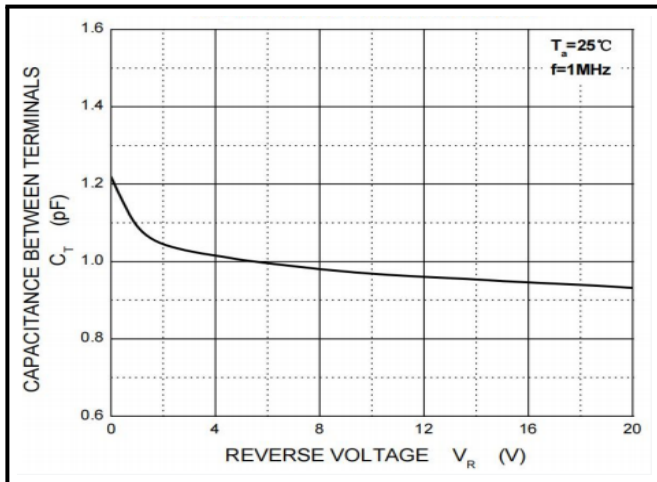
**Figure 1: Forward Characteristics**



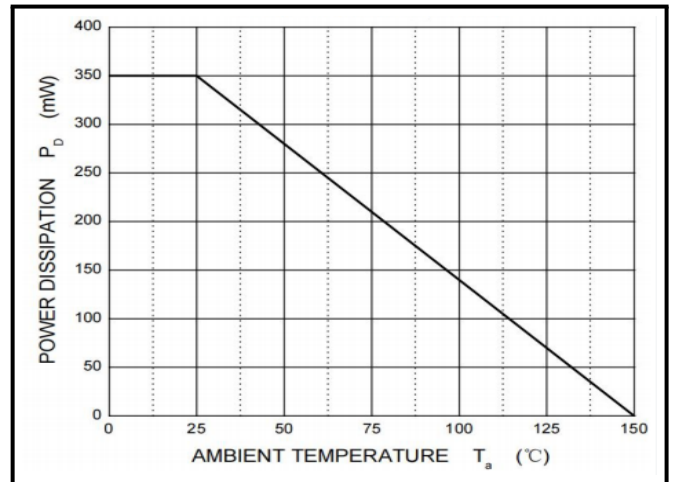
**Figure 2: Reverse Characteristics**



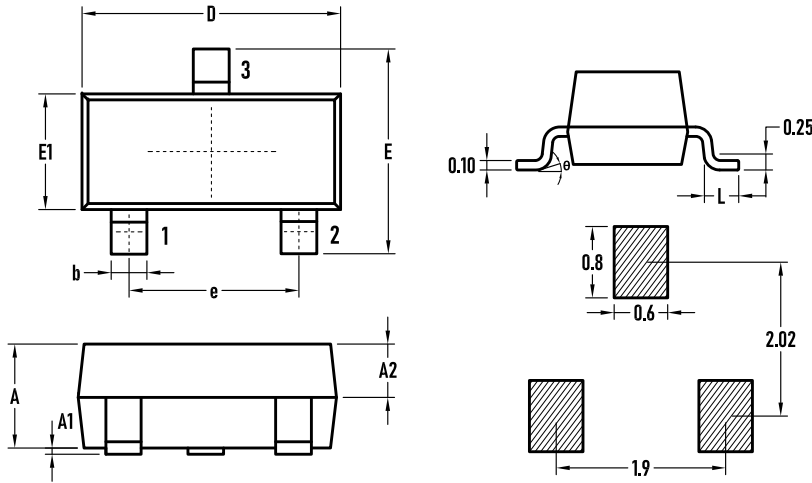
**Figure 3: Capacitance Characteristics**



**Figure 4: Power Derating Curve**

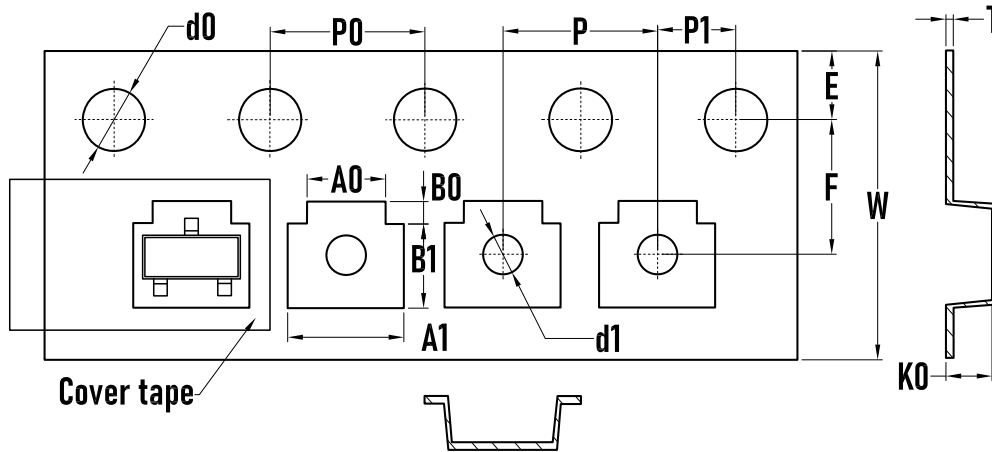


**Outline Drawing - SOT-23**



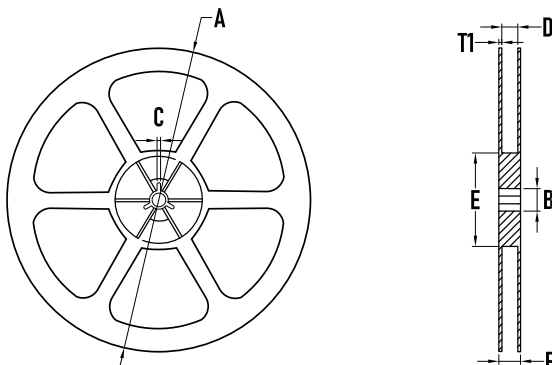
SYMBOL	MILLIMETER		
	MIN.	Typ.	MAX.
A	0.95	1.00	—
A1	0.02	0.06	0.10
A2	—	0.60	—
D	2.85	2.90	2.95
b	0.37	0.40	0.43
E	2.35	2.40	2.45
E1	1.25	1.30	1.35
e	1.85	1.90	1.95
L	0.35	0.40	0.48
θ	0	—	6°

**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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