

Plastic-Encapsulate Diodes Switching Diodes



SOT-23

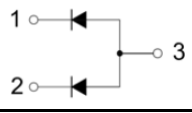
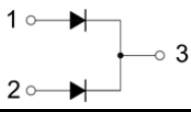
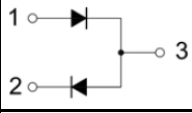
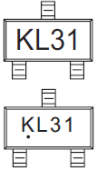
Features

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

Ordering Information

Part No.	Package	Packing
BAV23A/C/S	SOT-23	3000 / Tape & Reel

Marking

BAV23A	BAV23C	BAV23S
		
Marking: KT7	Marking: KT6	Marking: KL31
		

Solid dot = Green molding compound device,
if none, the normal device.

Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Limit	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	250	V
Working Peak Reverse Voltage	V _{RWM}	200	V
RMS Reverse Voltage	V _{R(RMS)}	175	V
Average Rectified Output Current	I _O	225	mA
Non-repetitive Peak Forward Surge Current @ t=8.3ms	I _{FSM}	1.7	A
Power Dissipation	P _D	350	mW
Thermal Resistance from Junction to Ambient	R _{θJA}	357	°C/W
Junction Temperature	T _J	125	°C
Storage Temperature Range	T _{STG}	-55~+150	°C

Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Reverse Voltage	I _R =100μA	V _(BR)	250	—	—	V
Reverse Current	V _R =250V	I _R	—	—	0.1	μA
Forward Voltage	I _F =100mA	V _F	—	—	1	V
	I _F =200mA		—	—	1.25	
Total capacitance	V _R =0, f=1MHz	C _T	—	—	5	pF
Reverse Recovery Time	I _F =I _R =30mA, I _{rr} =0.1xI _R , R _L =100Ω	t _{rr}	—	—	50	ns

Plastic-Encapsulate Diodes Switching Diodes

Rating and Characteristics Curves

Fig 1 Forward Characteristics

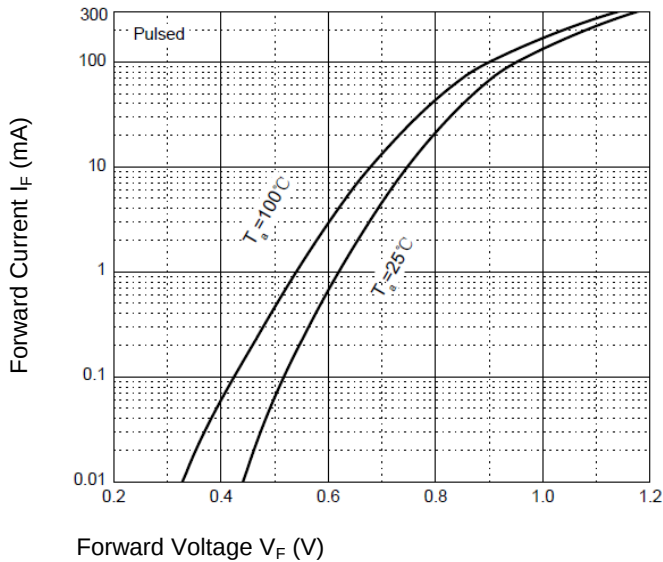


Fig 2 Reverse Characteristics

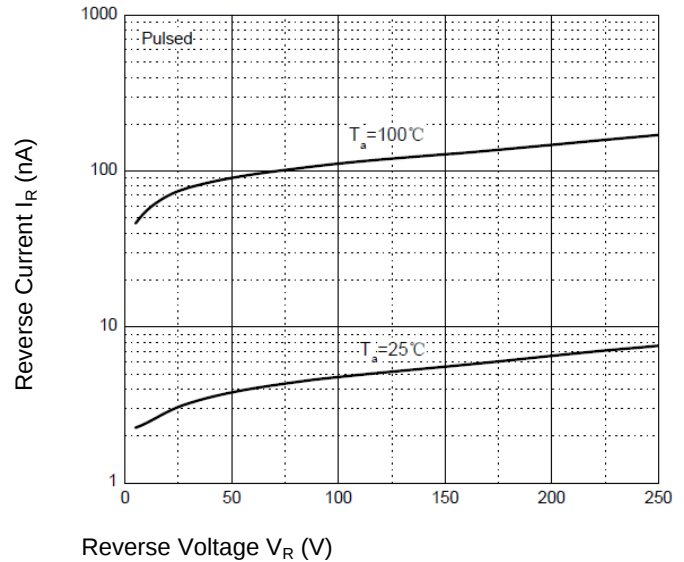


Fig 3 Capacitance Characteristics

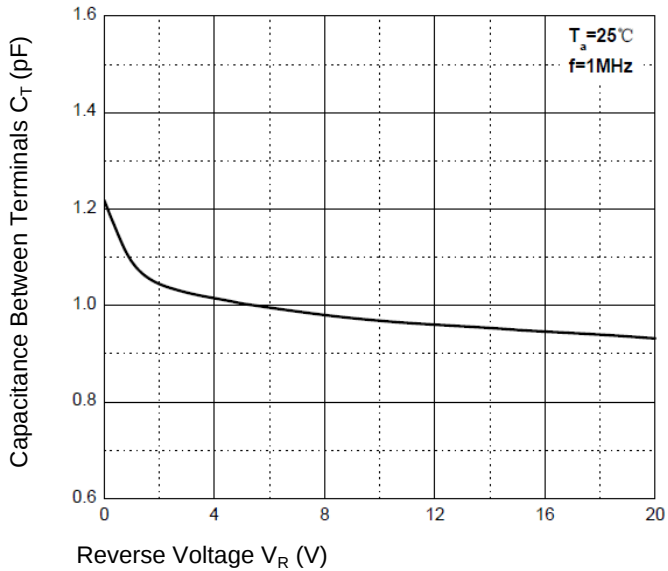
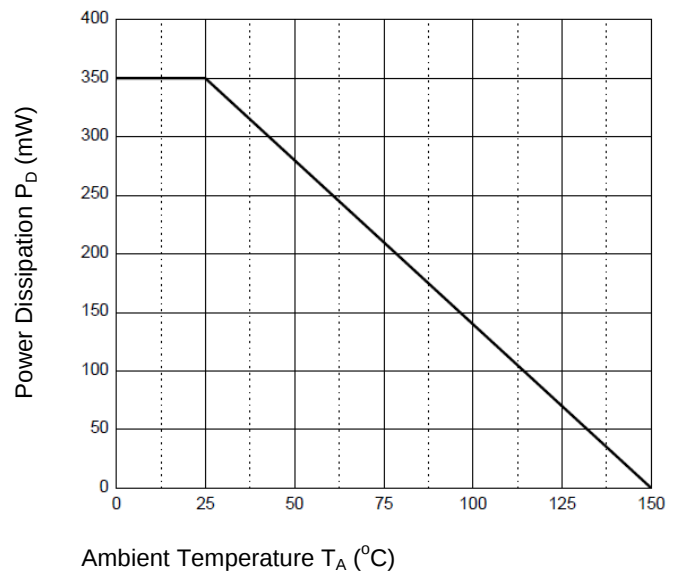
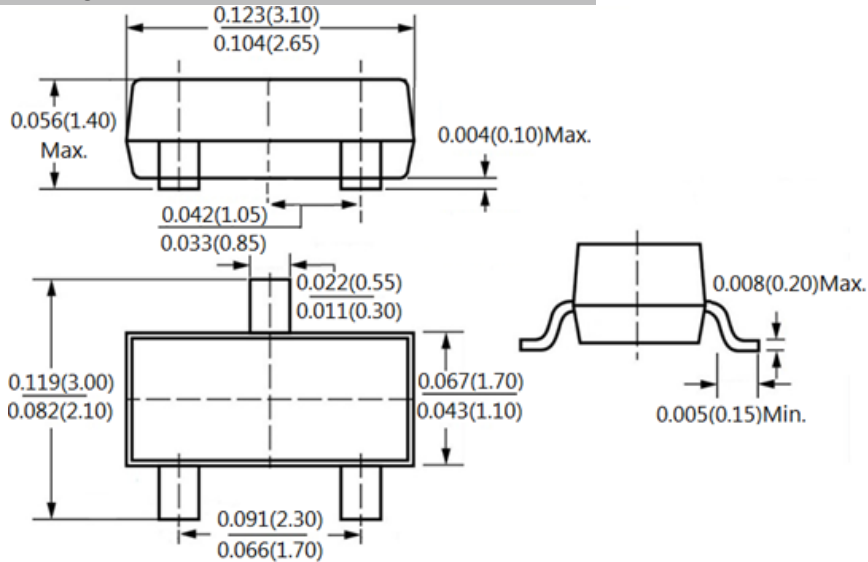


Fig 4 Power Derating Curve



Plastic-Encapsulate Diodes Switching Diodes

Package Outline Dimensions

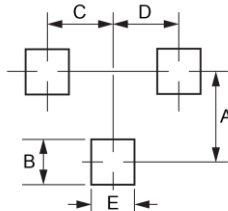


SOT-23

Dimensions in inches and (millimeters)

Suggested Pad Layout

Outline Symbol	SOT-23 millimeters
A	2.02
B	0.80
C	0.95
D	0.95
E	0.60



Tape & Reel Specification

Item	Symbol	Dimension
		millimeters
Carrier width	A	3.15 ±0.1
Carrier length	B	3.28 ±0.1
Carrier depth	C	1.22 ±0.1
Sprocket hole	d	1.50 ±0.1
Reel outside diameter	D	178 ±2
Reel inner diameter	D1	54.4 ±1
Feed hole width	D2	13.0 ±1
Sprocket hole position	E	1.75 ±0.1
Punch hole position	F	3.50 ±0.1
Punch hole pitch	P	4.0 ±0.1
Sprocket hole pitch	P0	4.0 ±0.1
Embossment center	P1	2.0 ±0.1
Tape width	W	8.0 ±0.2
Reel width	W1	12.3 ±1

