



## BAV23S SURFACE MOUNT SWITCHING DIODE

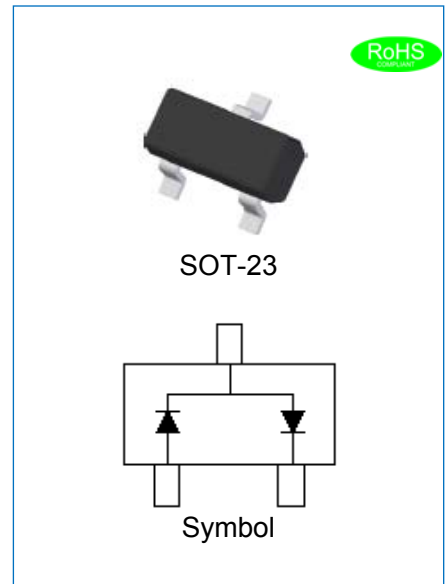
Rev.1.1

### FEATURES

- ✧ Fast Switching Speed
- ✧ Surface Mount Package Ideally Suited for Automatic Insertion
- ✧ For Surface Mounted Applications
- ✧ RoHS Compliant/Green EMC
- ✧ For General Purpose Switching Applications
- ✧ High Stability and High Reliability
- ✧ Low Reverse Leakage

### MECHANICAL DATA

- ✧ Case: SOT-23, Plastic
- ✧ Weight: 0.004grams(approx.)
- ✧ Quantity Per Reel:3,000pcs
- ✧ Type Code: KL31



### ABSOLUTE MAXIMUM RATING CHARACTERISTICS

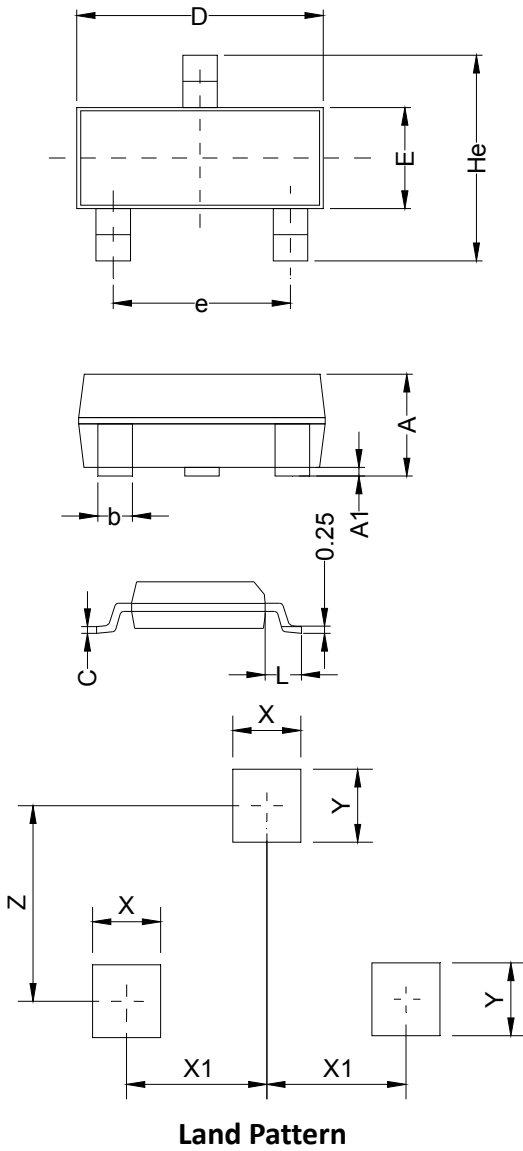
(Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	BAV23S	Unit
Continuous Reverse Voltage	$V_R$	200	V
Peak Repetitive Reverse Voltage	$V_{RM}$	250	V
Peak Forward Current at $T_A=25^\circ\text{C}$	$I_{FM}$	225	mA
Non-Repetitive Peak Forward Surge Current	$t_P=1\mu\text{s}$	9	A
	$t_P=100\mu\text{s}$	3	
Power Dissipation at $T_A=25^\circ\text{C}$	$P_D$	350	mW
Thermal Resistance (Junction to Ambient)	$R_{\theta JA}$	357	$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	$T_j$	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to +150	$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS**(Rating at 25°C ambient temperature unless otherwise specified.)

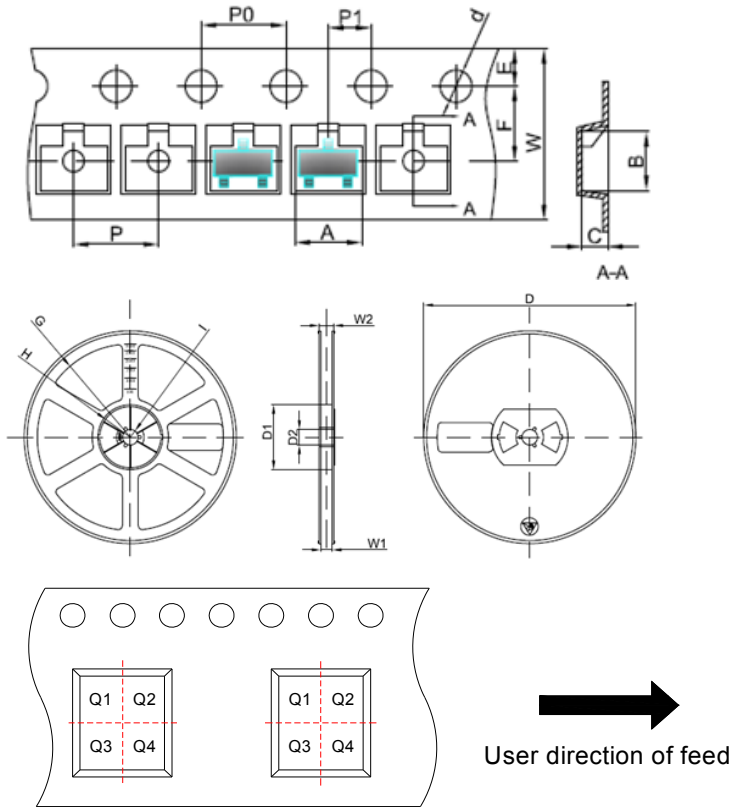
Symbol	Parameter	Conditions	Value			Unit
			Min.	Typ.	Max.	
V <sub>BR</sub>	Breakdown Voltage	I <sub>R</sub> =100μA	250	-	-	V
V <sub>F</sub>	Forward Voltage	I <sub>F</sub> =100mA	-	-	1	V
		I <sub>F</sub> =200mA	-	-	1.25	
I <sub>R</sub>	Reverse Current	V <sub>R</sub> =250V	-	-	100	nA
C <sub>T</sub>	Capacitance	V <sub>R</sub> =0V,f=1MHz	-	5	-	pF
T <sub>rr</sub>	Reverse Recovery Time	I <sub>F</sub> =I <sub>R</sub> =30mA, I <sub>RR</sub> =0.1*I <sub>R</sub> ,R <sub>L</sub> =100Ω	-	-	50	ns

PACKAGE MECHANICAL DATA



Symbol	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	0.90	1.063	1.15	0.035	0.042	0.045
A1	0.00	0.075	0.14	0.000	0.003	0.006
b	0.30	0.40	0.50	0.012	0.016	0.020
C	0.07	0.10	0.15	0.003	0.004	0.006
D	2.80	2.90	3.00	0.110	0.114	0.118
e	1.80	1.90	2.00	0.071	0.075	0.079
E	1.20	1.30	1.40	0.047	0.051	0.055
L	0.55REF			0.022REF		
He	2.25	2.40	2.55	0.089	0.094	0.100
X	0.80			0.031		
X1	0.95			0.037		
Y	0.80			0.031		
Z	2.02			0.080		

TAPE AND REEL SPECIFICATION-SOT-23



Pin 1 quadrant: Q3

Packaging Description:

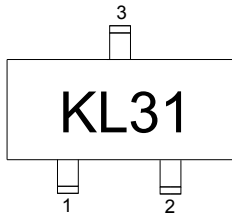
SOT-23 parts are shipped in tape. The carrier tape is made from a dissipative(carbon filled) polycarbonate resin. The cover tape is a multilayer film(heat activated adhesive in nature)primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 3,000units per 7" or 17.8cm diameter reel. The reels are clear in color and made of polystyrene plastic(anti-static coated).

Symbol	Millimeters	Inches
	Typ.	Typ.
A	3.15	0.124
B	2.77	0.109
C	1.22	0.048
d	Φ1.50	Φ0.059
E	1.75	0.069
F	3.50	0.138
P0	4.00	0.157
P	4.00	0.157
P1	2.00	0.079
W	8.00	0.315
D	Φ178	Φ7.008
D1	54.40	2.142
D2	13.00	0.512
G	R78.00	R3.071
H	R25.60	R1.008
I	R6.50	R0.256
W1	9.50	0.374
W2	12.30	0.484

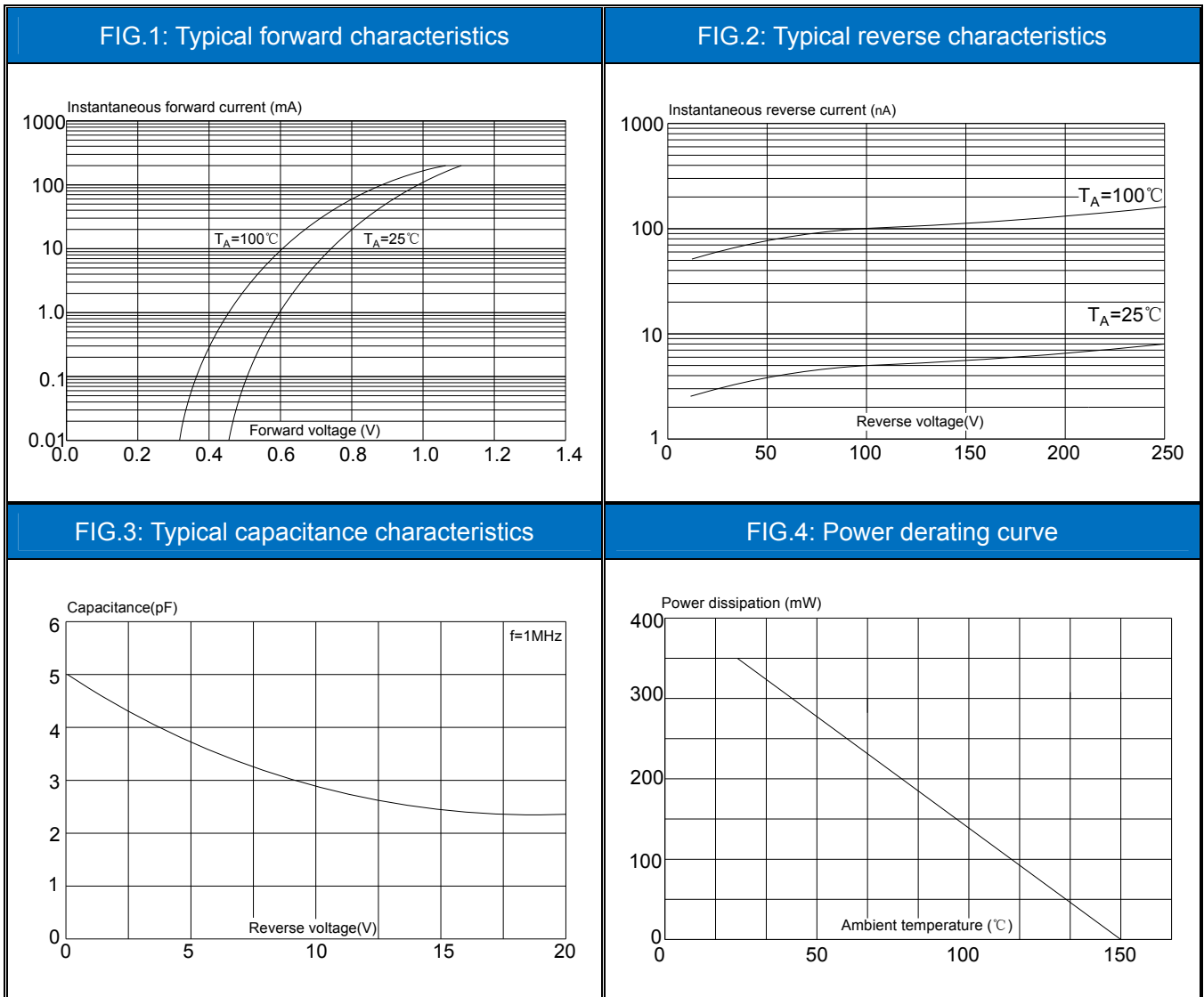
ORDERING INFORMATION

OUTLINE	UNIT WEIGHT (g/PCS) typ.	PACKAGE TYPE	QUANTITY REEL	DESCRIPTION
TAPING	0.004	SOT-23	3,000	7 inch reel pack

MARKING CODE

Part Number	Marking Code
BAV23S	

CHARACTERISTICS CURVE




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