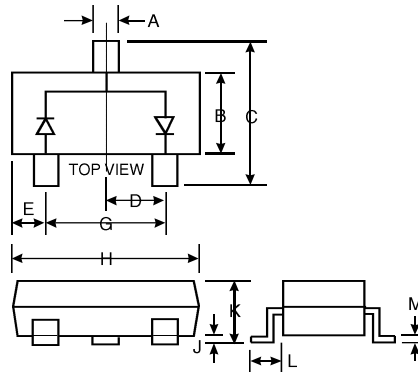


### Features

Fast Switching Speed  
 Surface Mount Package Ideally Suited for Automatic Insertion  
 For General Purpose Switching Applications  
 High Conductance

### Mechanical Data

Case: SOT-23, Molded Plastic  
 Terminals: Solderable per MIL-STD-202, Method 208  
 Polarity: See Diagram  
 Marking: KL31  
 Weight: 0.008 grams (approx.)



SOT-23		
Dim	Min	Max
A	0.37	0.51
B	1.19	1.40
C	2.10	2.50
D	0.89	1.05
E	0.45	0.61
G	1.78	2.05
H	2.65	3.05
J	0.013	0.15
K	0.89	1.10
L	0.45	0.61
M	0.076	0.178
All Dimensions in mm		

### Maximum Ratings @ $T_A = 25\text{ C}$ unless otherwise specified

Characteristic	Symbol	BAV23S	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	250	V
Working Peak Reverse Voltage DC Blocking Voltage	$V_{RWM}$ $V_R$	200	V
RMS Reverse Voltage	$V_{R(RMS)}$	141	V
Forward Continuous Current (Note 1)	$I_{FM}$	400	mA
Average Rectified Output Current (Note 1)	$I_O$	200	mA
Non-Repetitive Peak Forward Surge Current @ $t = 1.0\text{ s}$ @ $t = 100\text{ s}$ @ $t = 10\text{ms}$	$I_{FSM}$	9.0 3.0 1.7	A
Repetitive Peak Forward Surge Current	$I_{FRM}$	625	mA
Power Dissipation	$P_d$	250	mW
Thermal Resistance Junction to Ambient Air (Note 1)	$R_{JA}$	500	K/W
Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to +150	C

### Electrical Characteristics @ $T_A = 25\text{ C}$ unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Maximum Forward Voltage	$V_{FM}$		1.0 1.25	V	$I_F = 100\text{mA}$ $I_F = 200\text{mA}$
Maximum Peak Reverse Current @ Rated DC Blocking Voltage	$I_{RM}$		100	nA A	$T_J = 25\text{ C}$ $T_J = 150\text{ C}$
Junction Capacitance	$C_j$		5.0	pF	$V_R = 0, f = 1.0\text{MHz}$
Reverse Recovery Time	$t_{rr}$		50	ns	$I_F = I_R = 30\text{mA}$ , $I_{rr} = 0.1 \times I_R, R_L = 100$

Notes: 1. Valid provided that electrodes are kept at ambient temperature.

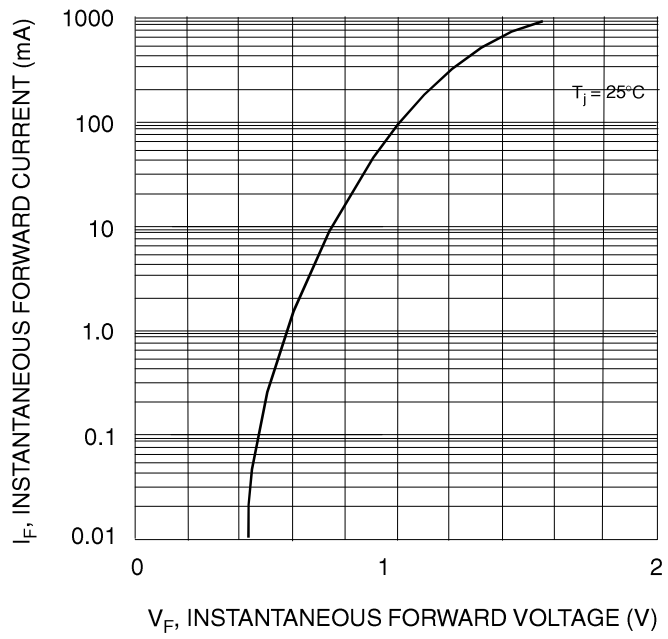


Fig. 1 Forward Characteristics

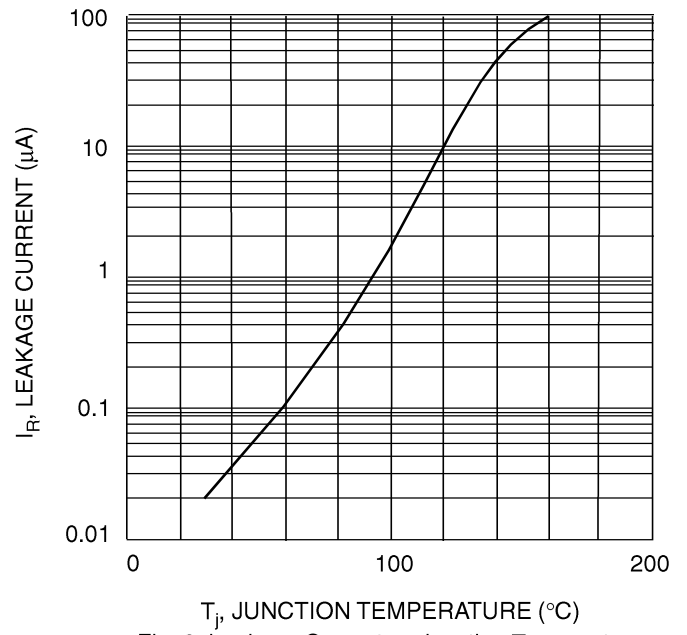


Fig. 2 Leakage Current vs Junction Temperature