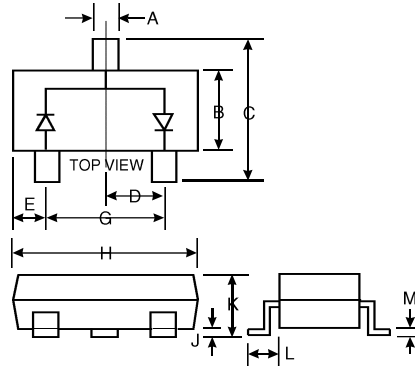


### Features

Fast Switching Speed  
 Ultra-small Surface Mount Package  
 For General Purpose Switching Applications  
 High Conductance

### Mechanical Data

Case: SOT-323, Molded Plastic  
 Terminals: Solderable per MIL-STD-202, Method 208  
 Polarity: See Diagram  
 Marking: KJG  
 Weight: 0.006 grams (approx.)



SOT-323		
Dim	Min	Max
A	0.30	0.40
B	1.15	1.35
C	2.00	2.20
D	0.65 Nominal	
E	0.30	0.40
G	1.20	1.40
H	1.80	2.20
J	0.0	0.10
K	0.90	1.00
L	0.25	0.40
M	0.10	0.25
All Dimensions in mm		

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

Characteristic	Symbol	BAV99W	Unit
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	75	V
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current (Note 1)	$I_{FM}$	300	mA
Average Rectified Output Current (Note 1)	$I_O$	150	mA
Non-Repetitive Peak Forward Surge Current @ $t = 1.0\text{ s}$ @ $t = 1.0\text{ s}$	$I_{FSM}$	2.0 1.0	A
Power Dissipation (Note 1)	$P_d$	200	mW
Thermal Resistance Junction to Ambient Air (Note 1)	$R_{JA}$	625	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	$V_{FM}$		0.715 0.855 1.0 1.25	V	$I_F = 1.0\text{mA}$ $I_F = 10\text{mA}$ $I_F = 50\text{mA}$ $I_F = 150\text{mA}$
Maximum Peak Reverse Current	$I_{RM}$		2.5 50 30 25	A A A nA	$V_R = 75\text{V}$ $V_R = 75\text{V}, T_j = 150\text{ C}$ $V_R = 25\text{V}, T_j = 150\text{ C}$ $V_R = 20\text{V}$
Junction Capacitance	$C_j$		2.0	pF	$V_R = 0, f = 1.0\text{MHz}$
Reverse Recovery Time	$t_{rr}$		4.0	ns	$I_F = I_R = 10\text{mA}$ , $I_{rr} = 0.1 \times I_R, R_L = 100$

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

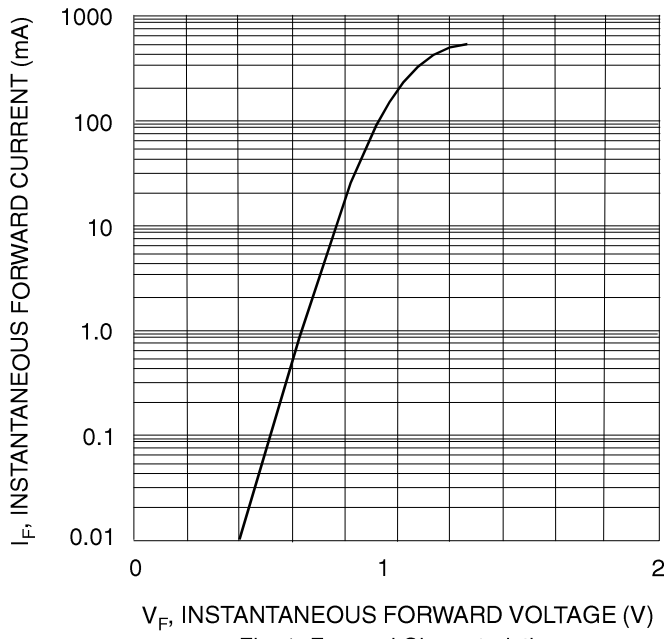


Fig. 1 Forward Characteristics

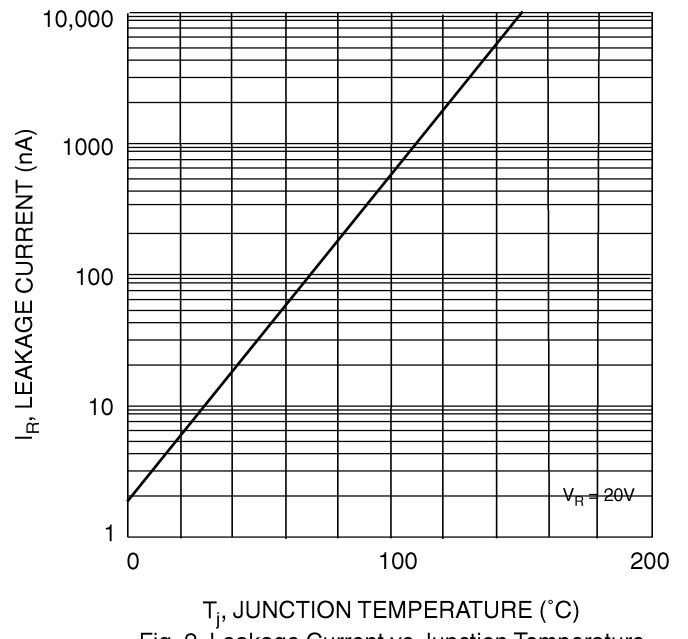


Fig. 2 Leakage Current vs Junction Temperature