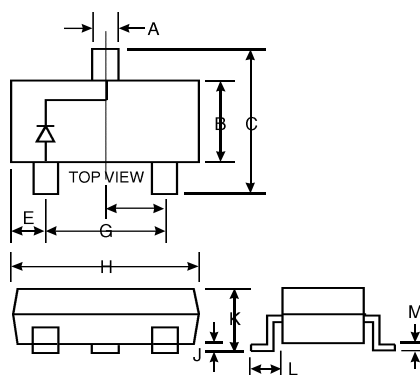


Features

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
 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 C unless otherwise specified

Characteristic	Symbol	BAS19	BAS20	BAS21	Unit
Repetitive Peak Reverse Voltage	V _{RRM}	120	200	250	V
Working Peak Reverse Voltage DC Blocking Voltage	V _{RWM} V _R	100	150	200	V
RMS Reverse Voltage	V _{R(RMS)}	71	106	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 s @ t = 1.0s	I _{FSM}		2.5 0.5		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 C unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Maximum Forward Voltage	V _{FM}		1.0 1.25	V	I _F = 100mA I _F = 200mA
Maximum Peak Reverse Current @ Rated DC Blocking Voltage	I _{RM}		100 15	nA A	T _j = 25 C T _j = 100 C
Junction Capacitance	C _j		5.0	pF	V _R = 0, f = 1.0MHz
Reverse Recovery Time	t _{rr}		50	ns	I _F = I _R = 30mA, I _{rr} = 0.1 x I _R , R _L = 100

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

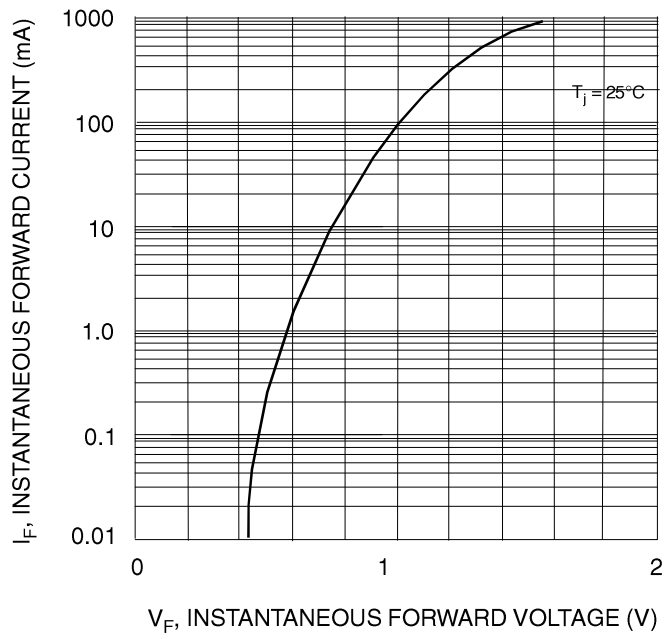


Fig. 1 Forward Characteristics

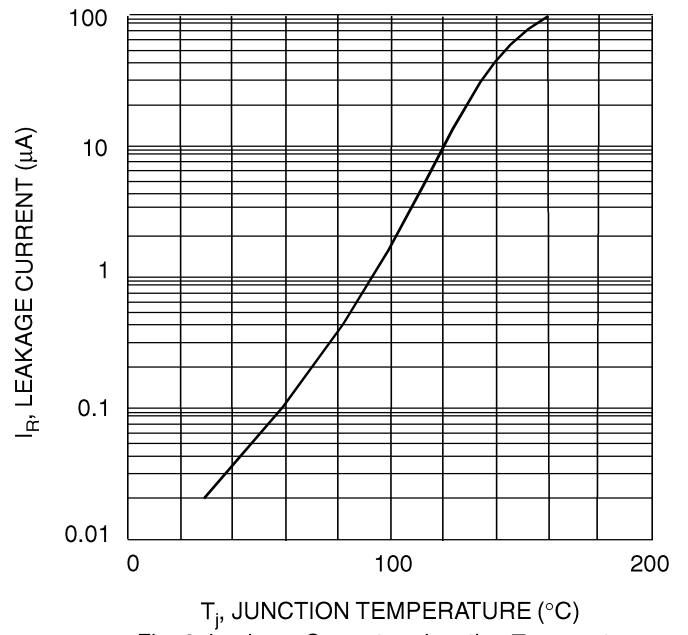


Fig. 2 Leakage Current vs Junction Temperature