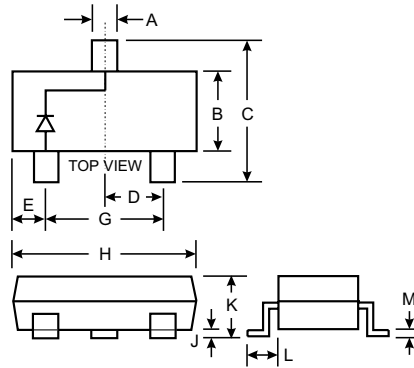


Features

- 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: KA3
- 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 @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	MMBD4448H	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	80	V
RMS Reverse Voltage	$V_{R(RMS)}$	57	V
Forward Continuous Current (Note 1)	I_{FM}	500	mA
Average Rectified Output Current (Note 1)	I_O	250	mA
Non-Repetitive Peak Forward Surge Current @ $t = 1.0\mu\text{s}$ @ $t = 1.0\text{s}$	I_{FSM}	4.0 2.0	A
Power Dissipation (Note 1)	P_d	350	mW
Thermal Resistance Junction to Ambient Air (Note 1)	$R_{\theta JA}$	357	K/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150	$^\circ\text{C}$

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

Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	$V_{(BR)R}$	80	—	V	$I_R = 2.5\mu\text{A}$
Forward Voltage (Note 2)	V_{FM}	0.62 — — —	0.72 0.855 1.0 1.25	V	$I_F = 5.0\text{mA}$ $I_F = 10\text{mA}$ $I_F = 100\text{mA}$ $I_F = 150\text{mA}$
Peak Reverse Current (Note 2)	I_{RM}	—	100 50 30 25	nA μA μA nA	$V_R = 70\text{V}$ $V_R = 75\text{V}, T_j = 150^\circ\text{C}$ $V_R = 25\text{V}, T_j = 150^\circ\text{C}$ $V_R = 20\text{V}$
Junction Capacitance	C_j	—	3.5	pF	$V_R = 6\text{V}, f = 1.0\text{MHz}$
Reverse Recovery Time	t_{rr}	—	4.0	ns	$V_R = 6\text{V}, I_F = 5\text{mA}$

- Notes: 1. Valid provided that terminals are kept at ambient temperature.
2. $t_p < 300\mu\text{s}$, duty cycle $< 2\%$.

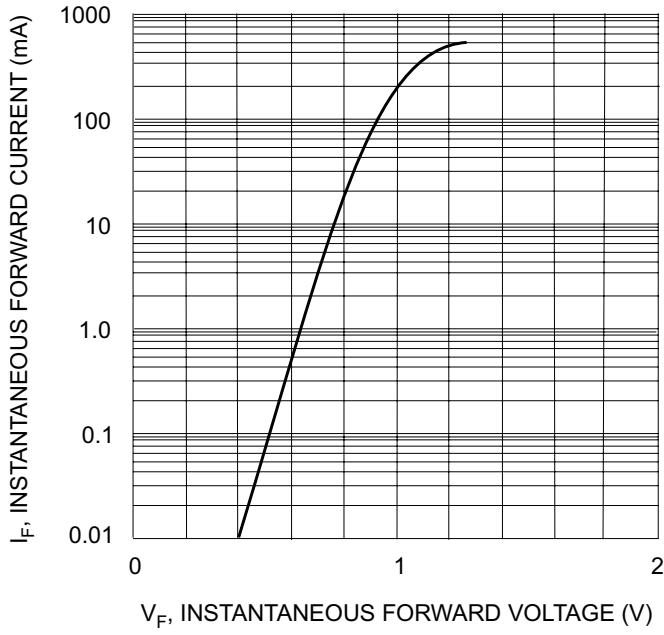


Fig. 1 Forward Characteristics

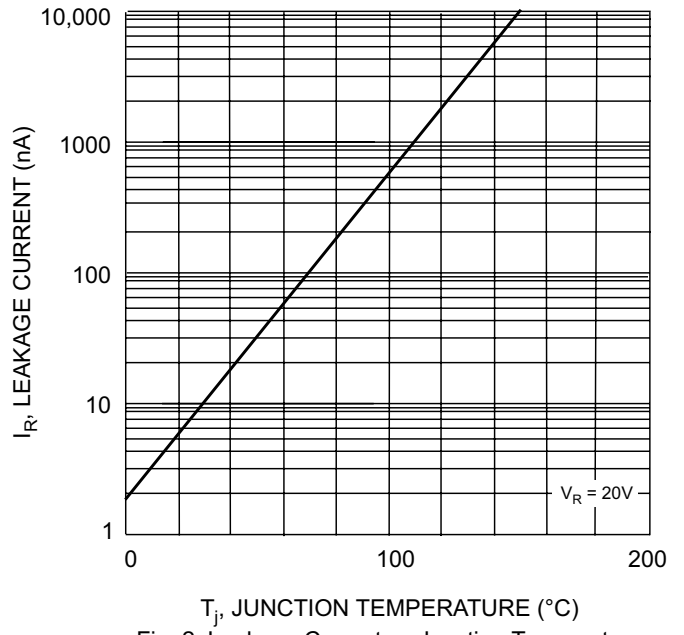


Fig. 2 Leakage Current vs Junction Temperature