

Surface Mount Switching Diode

(Pb) Lead(Pb)-Free

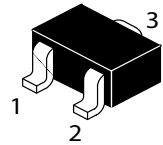
Features:

- * High Speed $\leq 4\text{ns}$
- * Low Rever Leakage Current
- * Surface Mount Package Ideally Suited for Automatic Insertion

Mechanical Data:

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

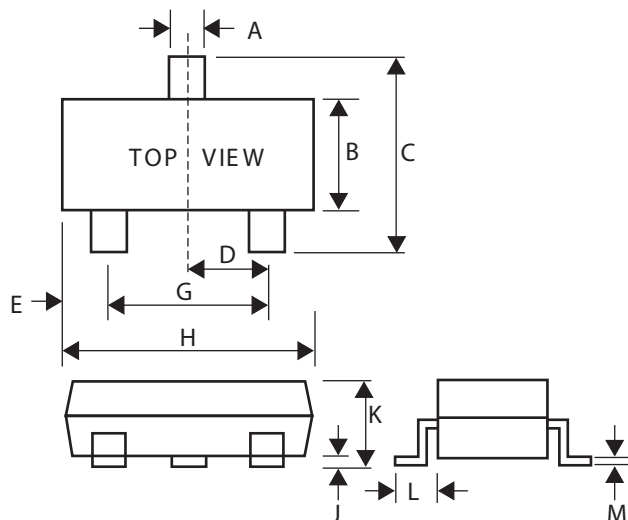
SWITCHING DIODE
250mAMPERS
100VOLTS



SOT-323(SC-70)

SOT-323 Outline Demensions

Unit:mm



SOT-323		
Dim	Min	Max
A	0.30	0.40
B	1.15	1.35
C	2.00	2.40
D	-	0.65
E	0.30	0.40
G	1.20	1.40
H	1.80	2.20
J	0.00	0.10
K	0.80	1.00
L	0.42	0.53
M	0.10	0.25

Maximum Ratings

Rating	Symbol	Value	Unit
Nop-Reptitive Reverse Voltage Peak	VRM	100	Vdc
Peak Repetitive Reverse Voltage	VRRM	75	Vdc
Working Peak Reverse Voltage	VRWM		
DC Blocking Vlotage	VR		
Forward Current *1	IF	250	mAdc
Non-Repetitive Peak Forward Surge Current	IFSM	@ t=1.0us	4.0
		@ t=1.0s	2.0

Thermal Characteristics

Characterictics	Symbol	Max	Unit
Total Device Dissipation *1	PD	200	mW
Thermal Resistance, Junction to Ambient Air *1	RθJA	625	°C/W
Junction and Storage Temperature	TJ, Tstg	-55 to + 150	°C

Electrical Characteristics (TA=25°C Unless Otherwise note)


Characterictics	Symbol	Min	Max	Unit
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Off Characteristics

Reverse Breakdown Voltage IR=10uA	V(BR)R	75	—	Vdc
Forward Voltage IF=5.0mA IF=10mA IF=100mA IF=150mA	VF	—	0.720 0.855 1.00 1.25	Vdc
Reverse Voltage Leakage Curret VR=20V VR=75V	IR	— —	0.025 2.5	uAdc
Diode Capacitance (VR=0, f=1.0MHz)	CT	—	4.0	pF
Revarse Recover Time (IF=IR=10mAdc)	trr	—	4.0	ns

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

Device Marking

Item	Marking	Equivalent Circuitdiagram
MMBD4448W	KA3	

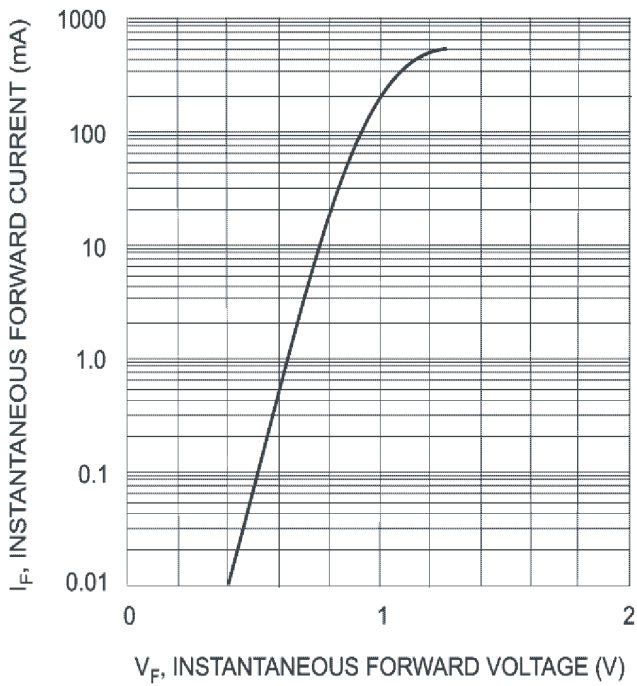


Fig. 1 Forward Characteristics

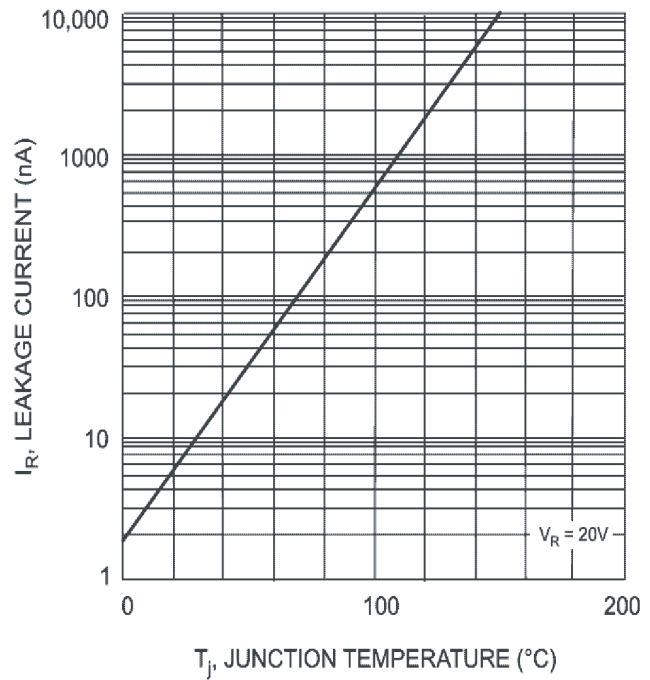


Fig. 2 Leakage Current vs Junction Temperature