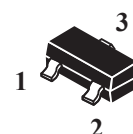


Surface Mount Switching Diode

Features:

- *High Speed $\leq 4\text{ns}$
- *Low Rever Leakage Current
- *Small Outline Surface Mount SOT-23 Package

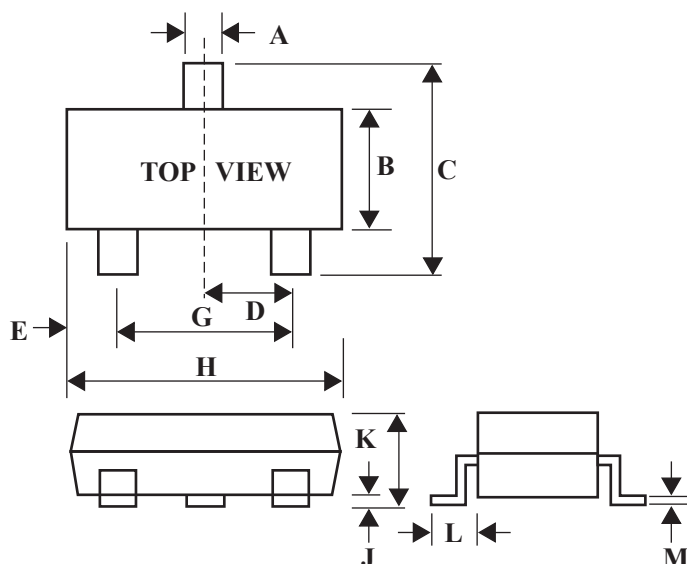
SWITCHING DIODE
200mAMPERS
100VOLTS



SOT-23

SOT-23 Outline Dimensions

Unit:mm



Dim	Min	Max
A	0.35	0.51
B	1.19	1.40
C	2.10	3.00
D	0.85	1.05
E	0.46	1.00
G	1.70	2.10
H	2.70	3.10
J	0.01	0.13
K	0.89	1.10
L	0.30	0.61
M	0.076	0.25

MMBD4148C/A/S**Maximum Ratings**

Rating	Symbol	Value	Unit
Reverse Voltage	VR	100	Vdc
Forward Current	IF	200	mAdc
Non-Repetitive Peak Forward Surge Current @t=1.0us @t=1.0s	IFSM	2.0 1.0	Adc

Thermal Characteristics

Characteristics	Symbol	Max	Unit
Total Device Dissipation FR-5 Board TA=25°C	PD	500	mW
Thermal Resistance, Junction to Ambient	RθJA	556	°C/W
Junction and Storage Temperature	TJ, Tstg	-55 to + 150	°C

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

Characteristics	Symbol	Min	Max	Unit
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Off Characteristics

Reverse Breakdown Voltage (IR=100μAdc)	V(BR)	100	—	Vcc
Forward Voltage(IF=10mAdc)	VF	—	1000	mVdc
Reverse Voltage Leakage Current (VR=20Vdc) (VR=75Vdc)	IR	— —	0.025 5.0	μAdc
Diode Capacitance (VR=0, f=1.0MHz)	CT	—	4.0	Pf
Reverse Recover Time (IF=IR=10mAdc)	trr	—	4.0	ns

1. FR-5=1.0x0.75x0.062 in 2. Alumina=0.4x0.3x0.024 in. 99.5% alumina.

Device Marking

Item	Marking	Equivalent Circuit diagram
MMBD4148C	A4	
MMBD4148A	A1	
MMBD4148S	A7	

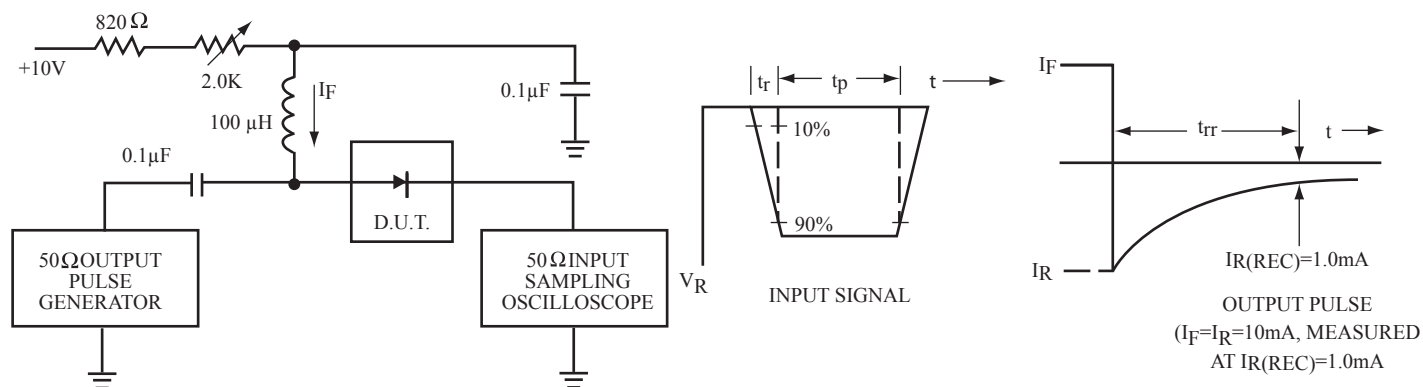


Figure 1. Recovery Time Equivalent Test Circuit

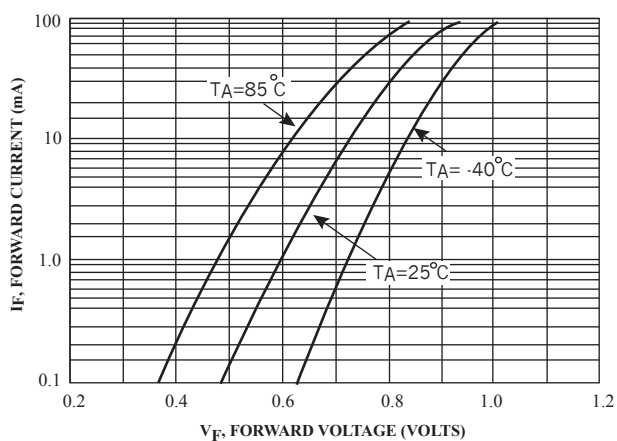


Figure 2. Forward Voltage

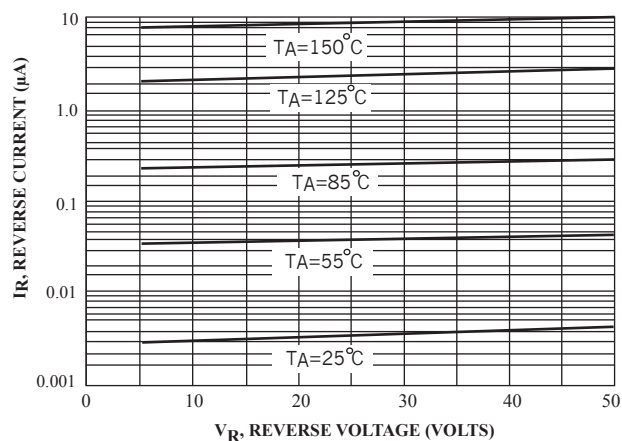


Figure 3. Leakage Current

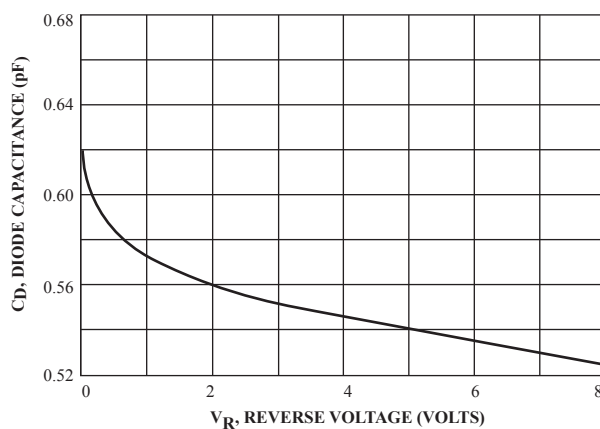


Figure 4. Capacitance