



DESCRIPTION

The MMSD4148 is available in SOD-123 package.

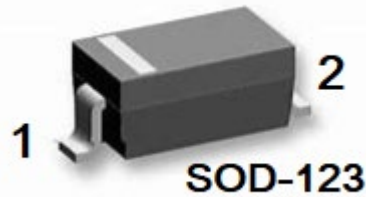
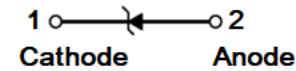
Mechanical Data

- Case: SOD-123, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Marking: 51M
- Weight: 0.01 grams (approx.)

FEATURES

- Fast Switching Speed
- Surface Mount Package Ideally Suited for
- Automatic Insertion
- For General Purpose Switching Applications
- High Conductance

PIN DESCRIPTION



ORDERING INFORMATION

Package Type	Part Number
SOD-123 SPQ: 3,000pcs/Reel	MMSD4148
Note	V: Halogen free Package R: Tape & Reel
AiT provides all RoHS products	

SOD-123	Symbol
1	Cathode
2	Anode



ABSOLUTE MAXIMUM RATINGS

T_A=25°C, unless otherwise specified

V _{RM} , Non-Repetitive Peak Reverse Voltage		100V
V _{RRM} ,	Peak Repetitive Reverse Voltage	75V
V _{RWM} ,	Working Peak Reverse Voltage	
V _R ,	DC Blocking Voltage	
V _{R(RMS)} , RMS Reverse Voltage		53V
I _{FM} , Forward Continuous Current (Note 1)		
I _O , Average Rectified Output Current (Note 1)		150mA
I _{FSM} , Non-Repetitive Peak	t=1.0μS	2A
Forward Surge Current	t=1.0S	1A
P _d , Power Dissipation		350mW
R _{θJA} , Thermal Resistance Junction to Ambient Air (Note 1)		357K/W
T _j , T _{STG} , Operating and Storage Temperature Range		-65 ~ +150°C

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

ELECTRICAL CHARACTERISTICS

T_A=25°C unless otherwise specified

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Maximum Forward Voltage	V _{FM}	I _F = 1.0mA	-	-	0.715	V
		I _F = 10mA	-	-	0.855	
		I _F = 50mA	-	-	1.0	
		I _F = 150mA	-	-	1.25	
Maximum Peak Reverse Current	I _{RM}	V _R =75V	-	-	2.5	μA
		V _R =75V, T _j =150°C	-	-	50	
		V _R =25V, T _j =150°C	-	-	30	nA
		V _R =20V	-	-	25	
Junction Capacitance	C _j	V _R =0, f=1.0MHz	-	-	2	pF
Reverse Recovery Time	t _{rr}	I _F =I _R =10mA, I _{rr} =0.1xI _R , R _L =100Ω	-	-	4	ns



TYPICAL PERFORMANCE CHARACTERISTICS

Fig 1. Forward Characteristics

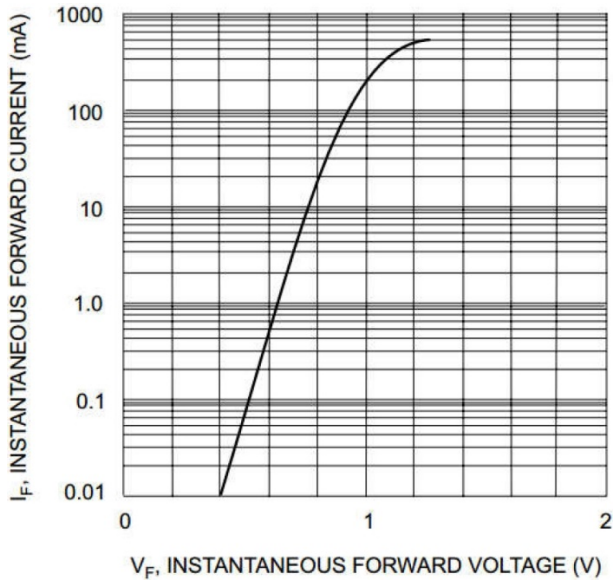
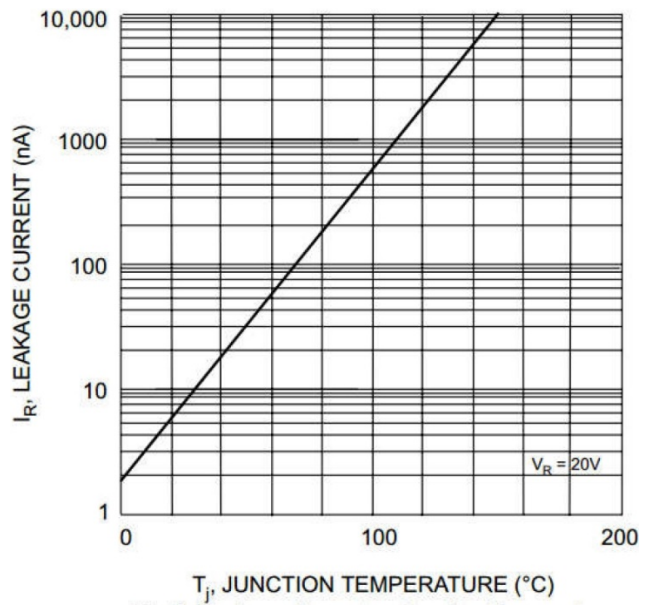


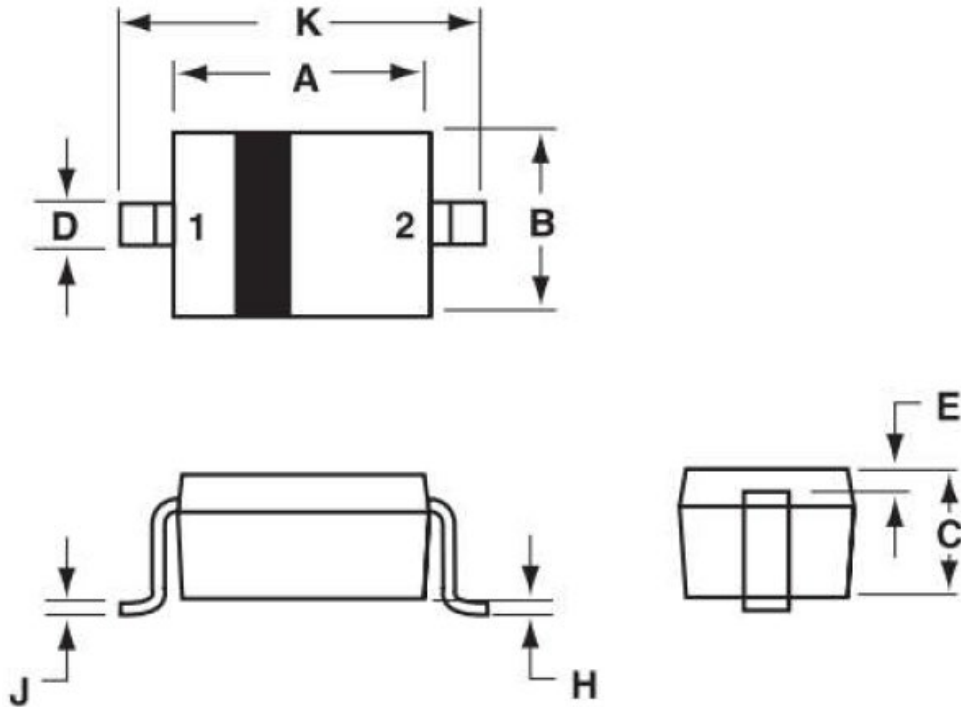
Fig 2. Leakage Current vs Junction Temperature





PACKAGE INFORMATION

Dimension in SOD-123 (Unit: mm)



Symbol	Min.	Max.
A	2.550	2.850
B	1.400	1.800
C	0.950	1.350
D	0.500	0.700
E	0.300 REF	
H	-	0.100
J	-	0.150
K	3.550	3.850



IMPORTANT NOTICE

AiT Semiconductor Inc. (AiT) reserves the right to make changes to any its product, specifications, to discontinue any integrated circuit product or service without notice, and advises its customers to obtain the latest version of relevant information to verify, before placing orders, that the information being relied on is current.

AiT Semiconductor Inc.'s integrated circuit products are not designed, intended, authorized, or warranted to be suitable for use in life support applications, devices or systems or other critical applications. Use of AiT products in such applications is understood to be fully at the risk of the customer. As used herein may involve potential risks of death, personal injury, or serve property, or environmental damage. In order to minimize risks associated with the customer's applications, the customer should provide adequate design and operating safeguards.

AiT Semiconductor Inc. assumes to no liability to customer product design or application support. AiT warrants the performance of its products of the specifications applicable at the time of sale.