

Switching Diodes

FEATURES

- ◆For surface mounted applications
- ◆Glass Passivated Chip Junction
- ◆Fast reverse recovery time
- ◆Ideal for automated placement
- ◆Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆Case: SOD-123
- ◆Terminals: Solderable per MIL-STD-750, Method 2026
- ◆Approx. Weight: 16mg /0.00056oz

Absolute Maximum Ratings at 25 °C

Parameter	Symbols	MMSD4148	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS voltage	V_{RMS}	75	V
Continuous Forward Current	I_F	300	mA
Non-reptitive Peak Forward Surge Current at 1ms	I_{FSM}	4	A
Total Power Dissipation	P_{tot}	400	mW
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	°C

Characteristics at $T_a = 25\text{ °C}$

Parameter	Symbols	MMSD4148	Units
Reverse Breakdown Voltage at $I_R = 1\mu A$	$V_{(BR)R}$	75	V
Maximum Forward Voltage	at 1 mA	0.715	V
	at 10 mA	0.855	
	at 50 mA	1.00	
	at 150 mA	1.25	
	at 300 mA	1.50	
Peak Reverse Current	at $V_R = 20V$ $T_j = 25\text{ °C}$	0.025	uA
	at $V_R = 75V$ $T_j = 25\text{ °C}$	1	
	at $V_R = 25V$ $T_j = 150\text{ °C}$	30	
	at $V_R = 75V$ $T_j = 150\text{ °C}$	50	
Typical Junction Capacitance $f = 1MHz, V_R = 4V$	C_j	5	pF
Maximum Reverse Recovery Time	T_{rr} Typical	4	nS

(1) Measured with $I_F = 0.5 A$, $I_R = 1 A$, $I_{rr} = 0.25 A$

Pinning

1.Cathode	2.Anode
	
SOD-123	

Marking Code

MMSD4148	T4
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Fig.1 Power Derating Curve

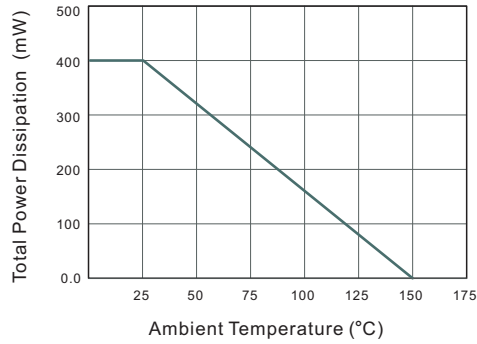


Fig.2 Typical Reverse Characteristics

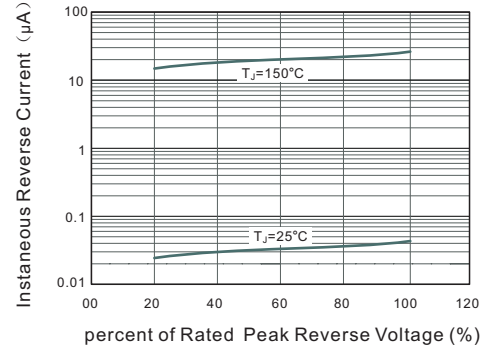


Fig.3 Typical Instaneous Forward Characteristics

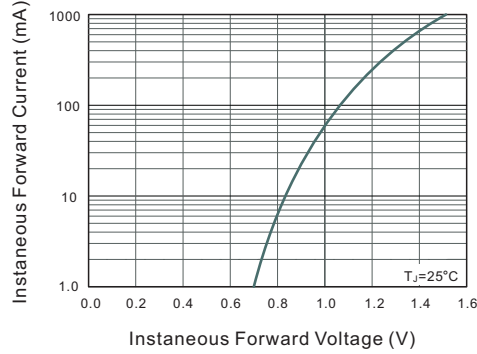
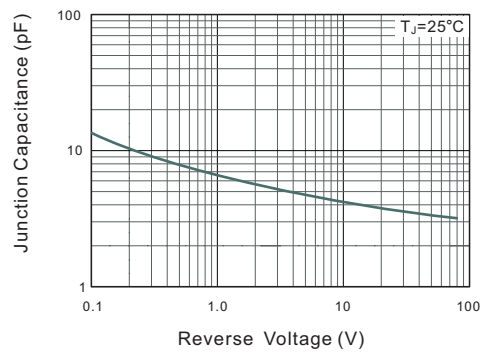


Fig.4 Typical Junction Capacitance



Ordering information

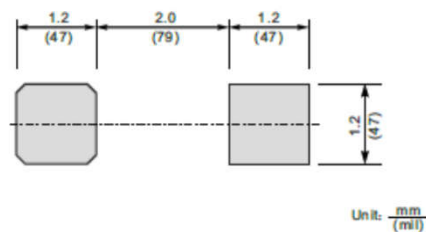
Package	Packing Description	Packing Quantity
SOD-123	Tape/Reel, 7" reel	3000PCS/Reel 120000PCS/Carton

Package Dimensions

SOD-123

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.3	35	51
C	0.09	0.22	3.5	8.7
D	1.5	1.8	59	71
E	2.5	2.8	98	110
E1	3.6	3.9	142	154
b	0.5	0.7	20	28
L1	0.25	0.45	10	18
A1	-	0.2	-	8
∠	9°			

The recommended mounting pad size



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