



# 1N4148W

## SURFACE MOUNT SWITCHING DIODES

**VOLTAGE** 100 Volt **POWER** 410mWatt

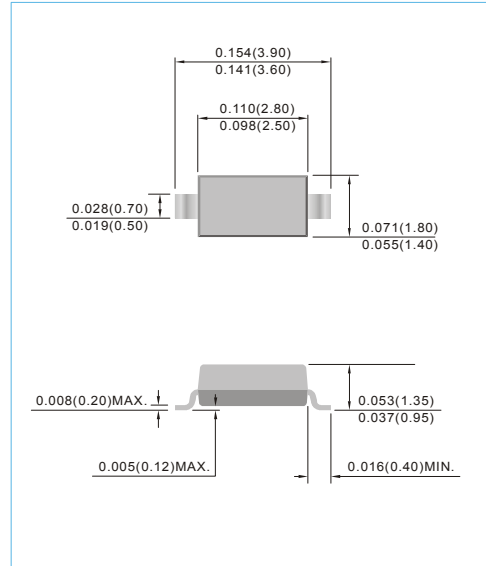
**SOD-123** Unit : inch(mm)

### FEATURES

- Fast switching Speed.
- Electrically Identical to Standard JEDEC
- High Conductance
- Surface Mount Package Ideally Suited for Automatic Insertion.
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### MECHANICAL DATA

- Case: SOD-123 plastic case.
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0003 ounce, 0.0103 gram
- Marking Code: A2



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T<sub>J</sub>=25°C unless otherwise noted)

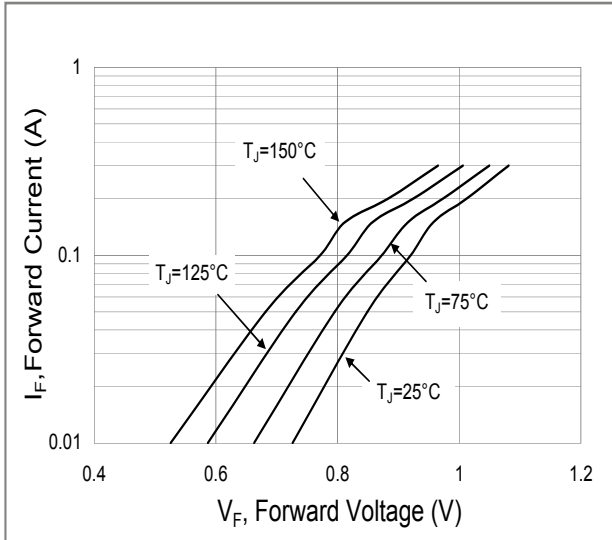
PARAMETER	SYMBOL	VALUE	UNITS
Reverse Voltage	V <sub>R</sub>	75	V
Peak Reverse Voltage	V <sub>RM</sub>	100	V
RMS Voltage	V <sub>RMS</sub>	50	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	75	V
Maximum Average Forward Current at T <sub>A</sub> =25°C	I <sub>F(AV)</sub>	200	mA
Peak Forward Surge Current, 0.001ms	I <sub>FSM</sub>	4	A
Power Dissipation Derate Above 25°C	P <sub>TOT</sub>	410	mW
Maximum Forward Voltage	V <sub>F</sub>	0.715@1mA 0.855@10mA 1@50mA 1.25@150mA	V
Maximum DC Reverse Current at Rated DC Blocking Voltage T <sub>J</sub> = 25°C	I <sub>R</sub>	0.025@20V 2.5@75V	μA
Junction Capacitance (Notes 1)	C <sub>J</sub>	1.5	pF
Maximum Reverse Recovery Time (Notes 2)	t <sub>rr</sub>	4	ns
Typical Thermal Resistance (Notes 3)	R <sub>θJA</sub> R <sub>θJC</sub> R <sub>θJL</sub>	450 257 329	°C / W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C

**NOTE :**

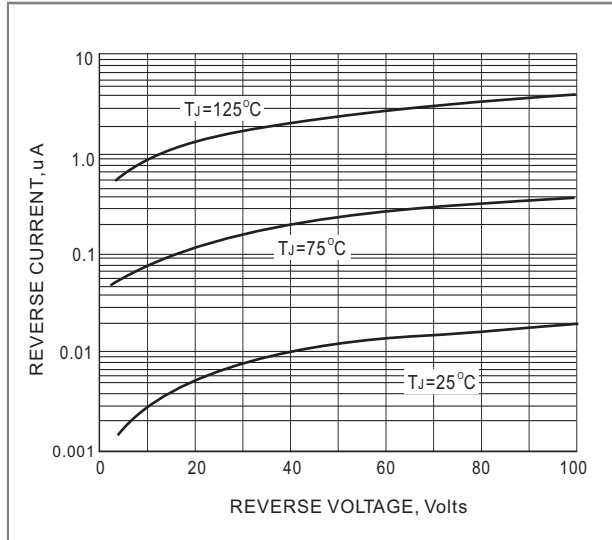
- 1.CJ at V<sub>R</sub>=0, f=1MHZ
- 2.From I<sub>F</sub>=10mA to I<sub>R</sub>=1mA, V<sub>R</sub>=6Volts, R<sub>L</sub>=100Ω
- 3.Mounted on a FR4 PCB, single-sided copper, with 100cm<sup>2</sup> copper pad area.



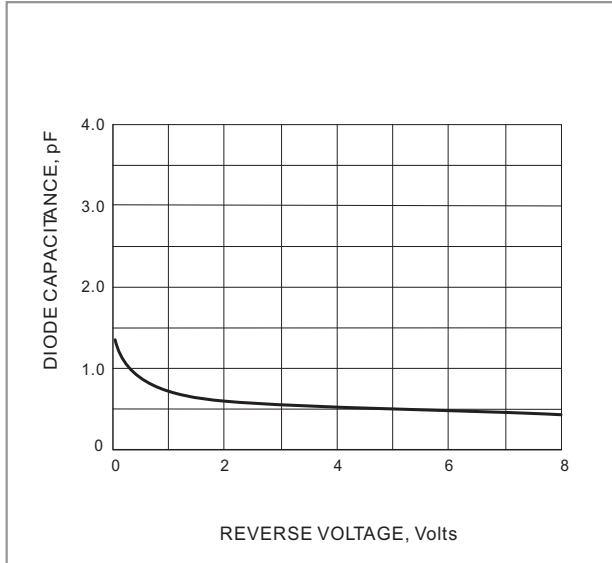
**1N4148W**



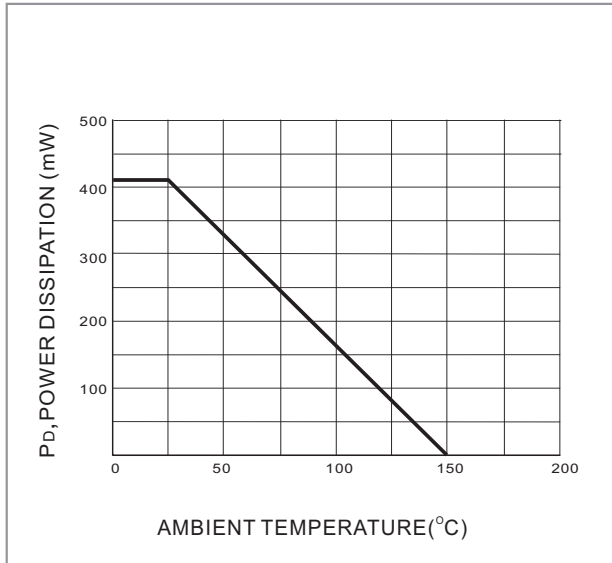
**Fig. % Typical Forward Characteristics**



**FIG. 2 TYPICAL REVERSE CHARACTERISTICS**



**FIG. 3 TYPICAL JUNCTION CAPACITANCE**

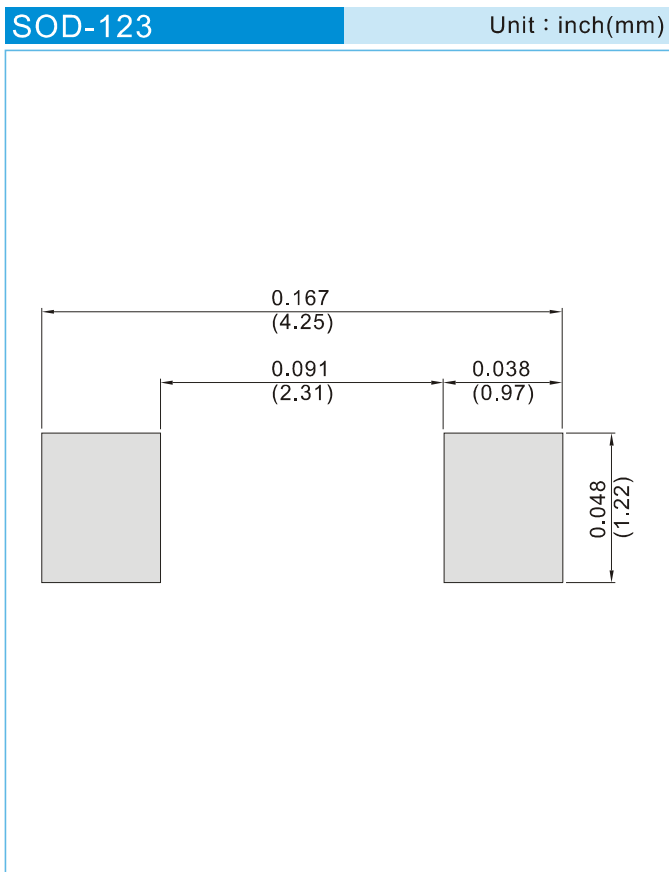


**FIG. ( POWER DERATING CURVE**



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information  
T/R - 10K per 13" plastic Reel  
T/R - 3K per 7" plastic Reel



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## Part No\_packing code\_Version

1N4148W\_R1\_00001

1N4148W\_R2\_00001

For example :

**RB500V-40 R2 00001**



Packing Code <b>XX</b>				Version Code <b>XXXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	<b>A</b>	N/A	<b>0</b>	HF	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	RoHS	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



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