

# 400mW SOD-123 SURFACE MOUNT Small Outline Flat Lead Plastic Package General Purpose Application Fast Switching Diode

**Absolute Maximum Ratings** T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
P <sub>D</sub>	Power Dissipation	400	mW
T <sub>STG</sub>	Storage Temperature Range	-65 to +150	°C
TJ	Operating Junction Temperature	+150	°C
$V_{RSM}$	Non-Repetitive Peak Reverse Voltage	100	V
V <sub>RRM</sub>	Repetitive Peak Reverse Voltage	75	V
I <sub>FRM</sub>	Repetitive Peak Forward Current	300	mA
lo	Continuous Forward Current	150	mA

These ratings are limiting values above which the serviceability of the diode may be impaired.

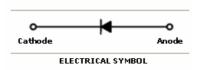
### **Specification Features:**

- Fast Switching Device (T<sub>RR</sub><4.0 nS)
- General Purpose Diodes
- Flat Lead SOD-123 Small Outline Plastic Package
- Surface Device Type Mounting
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode

# **Green Product**



SOD-123 Flat Lead



#### DEVICE MARKING CODE:

Device Type	Device Marking		
1N4148W	D1		
1N4448W	D2		
1N914BW	D3		

## **Electrical Characteristics**

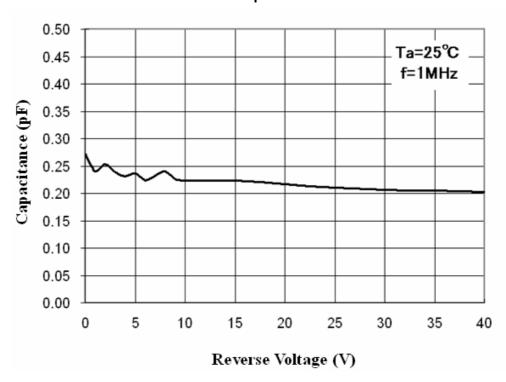
T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Test Condition	Limits		Unit
	Faranietei		Min	Max	Oill
B <sub>V</sub>	Breakdown Voltage	I <sub>R</sub> =100μA	100		Volts
		I <sub>R</sub> =5µA	75		
I <sub>R</sub>	Reverse Leakage Current	V <sub>R</sub> =20V		25	nA
		V <sub>R</sub> =75V		5	μA
V <sub>F</sub>	Forward Voltage 1N4448W, 1N914BW	I <sub>F</sub> =5mA	0.62	0.72	
	1N4148W	I <sub>F</sub> =10mA		1.0	Volts
	1N4448W, 1N914BW	I <sub>F</sub> =100mA		1.0	
T <sub>RR</sub>	Reverse Recovery Time	I <sub>F</sub> =10mA		4	
		I <sub>R</sub> =60mA			0
		R <sub>L</sub> =100Ω		4	nS
		I <sub>RR</sub> =1mA			
С	Capacitance	V <sub>R</sub> =0V, f=1M <sub>HZ</sub>		4	pF

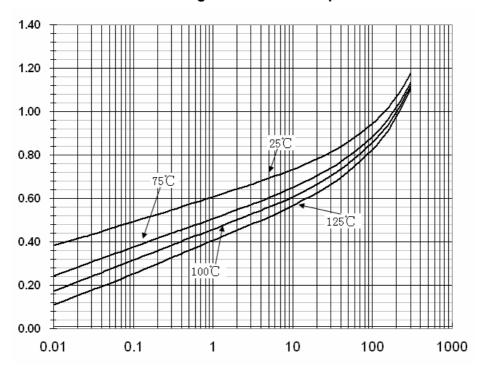


### **Typical Performance Characteristics**

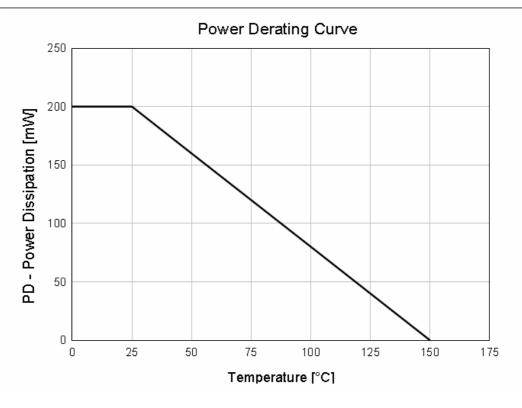
## **Total Capacitance**



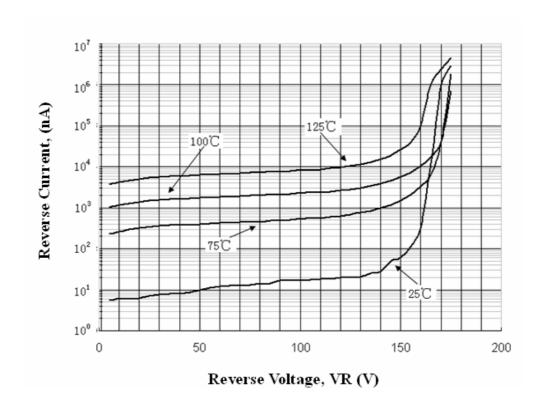
## **Forward Voltage vs Ambient Temperature**





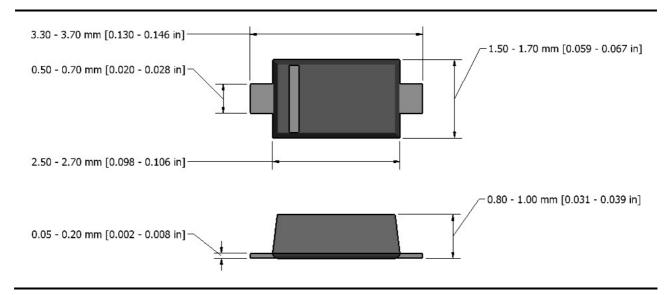


# Reverse Current vs Reverse VoltageReverse





### Flat Lead SOD-123 Package Outline



This datasheet presents technical data of Tak Cheong's Switching Diodes. Complete specifications for the individual devices are provided in the form of datasheets. A comprehensive Selector Guide is included to simplify the task of choosing the best set of components required for a specific application. For additional information, please visit our website <a href="http://www.takcheong.com">http://www.takcheong.com</a>.

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