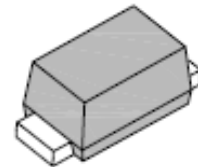


## Two Terminals SMD Switching Diode

### Features

- Extremely fast reverse recovery time to reduce switching losses
- Very low capacitance for reduced insertion losses
- Reverse voltage rating of 80V
- RoHS Compliant



**SOD-723**

### Mechanical Data

<b>Case:</b>	SOD-723, Plastic Case
<b>Terminals:</b>	Solderable per MIL-STD-750, Method 2026
<b>Polarity:</b>	Color band denotes cathode end
<b>Weight:</b>	Approx. 0.00077 gram

### Maximum Ratings *(T<sub>Ambient</sub>=25°C unless noted otherwise)*

Symbol	Description	TWD4148-400WU	Unit	Conditions
	Marking Code	BE		
<b>V<sub>RM</sub></b>	Continuous Reverse Voltage	80	V	
<b>V<sub>RRM</sub></b>	Peak Reverse Voltage	90	V	
<b>I<sub>F</sub></b>	Continuous Forward Current	225	mA	
<b>I<sub>FSM</sub></b>	Non-repetitive Peak Forward Surge Current, t=0.01ms, Square Wave	2	A	
<b>P<sub>D</sub></b>	Total Power Dissipation	200	mW	Note 1
<b>R<sub>thJA</sub></b>	Thermal Resistance, Junction to Ambient	625	° C/W	
<b>T<sub>J</sub>, T<sub>STG</sub></b>	Operating Junction and Storage Temperature Range	-55 to +150	° C	

Note 1: FR-5 Board 1.0 x 0.75 x 0.062"

# Two Terminals SMD Switching Diode

## TWD4148-400WU

### Electrical Characteristics ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	TYP.	MAX.	Unit	Conditions
<b>V<sub>F</sub></b>	Forward Voltage (Note 2)	-	1.0	V	I <sub>F</sub> =100mA
<b>I<sub>R</sub></b>	Reverse Leakage Current	-	0.1	μA	V <sub>R</sub> =80V
<b>C<sub>T</sub></b>	Total Capacitance	0.7	3.0	pF	0.5Vdc Bias, f=1MHz
<b>T<sub>rr</sub></b>	Reverse Recovery Time	-	4.0	ns	I <sub>F</sub> =10mA, I <sub>R</sub> =10mA, R <sub>L</sub> =100Ω measured at I <sub>Rrec</sub> =1mA

Note 2: Short duration pulse test to avoid self-heating effect

### Typical Characteristics Curves

Fig.1- Typical Forward Characteristics

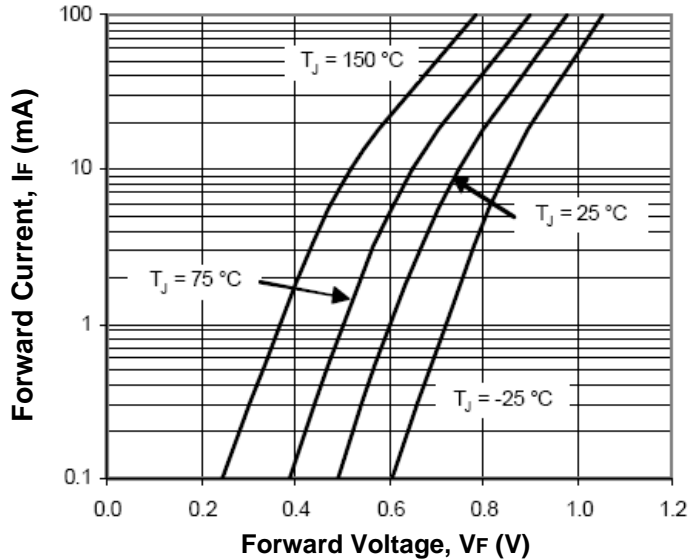
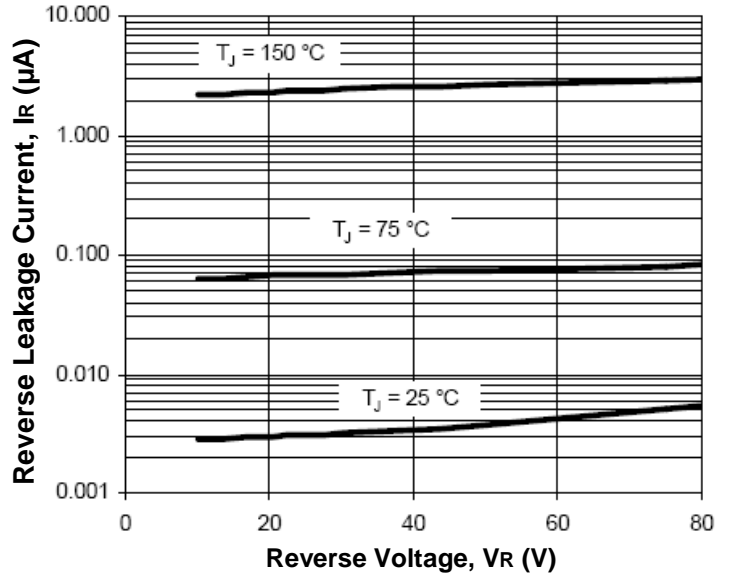
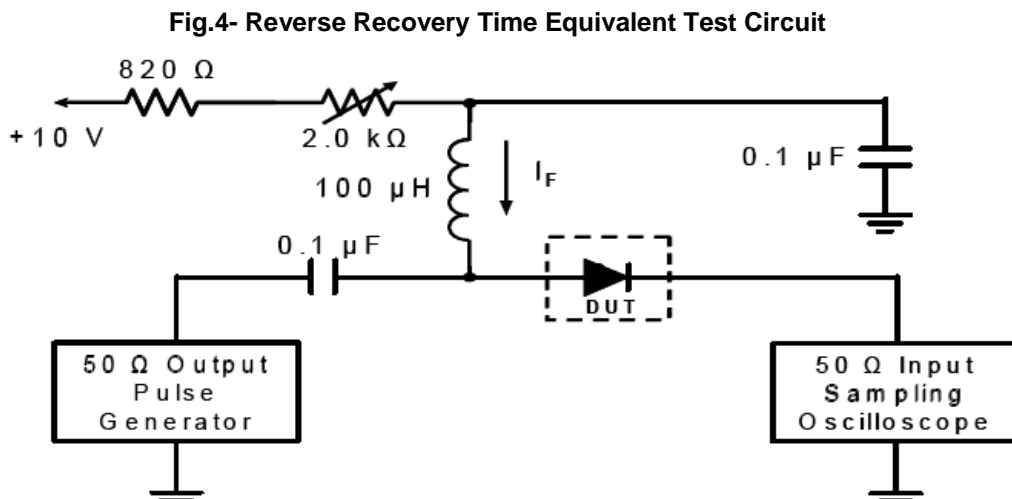
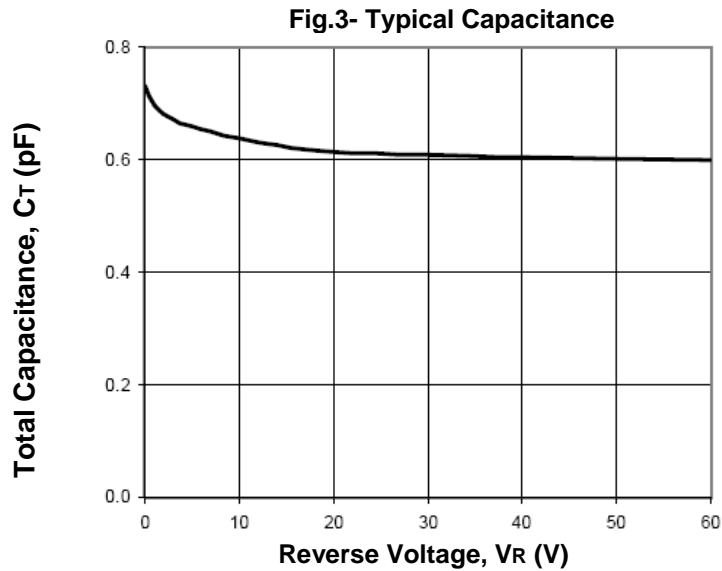


Fig.2- Typical Reverse Characteristics



# Two Terminals SMD Switching Diode

## TWD4148-400WU

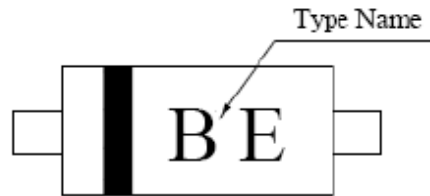


- Note: 1. A 2.0kΩ variable resistor adjusted for a forward current ( $I_F$ ) to 10mA  
2. Input pulse is adjusted to  $I_{R(\text{peak})}$  is equal to 10mA

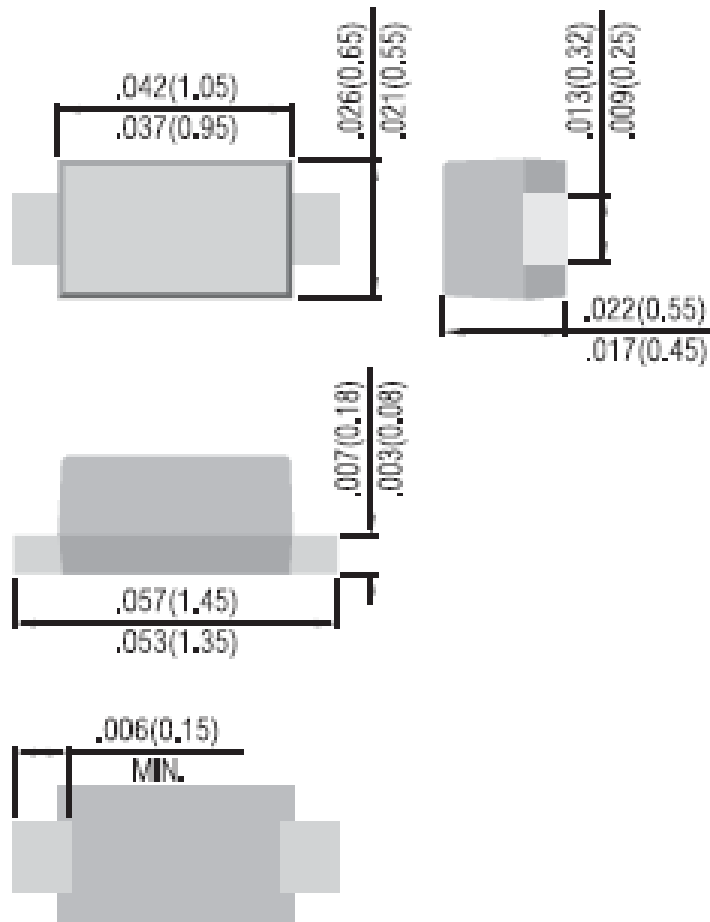
# Two Terminals SMD Switching Diode

TWD4148-400WU

## Marking Information:



## Dimensions in inch (mm)

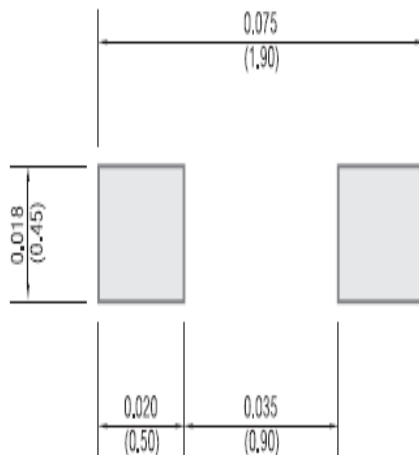


SOD-723

## Two Terminals SMD Switching Diode

TWD4148-400WU

### Mounting Pad Layout in inch (mm)



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