

# 1N4148WT

**PRV : 100 Volts**  
**I<sub>o</sub> : 125 mA**

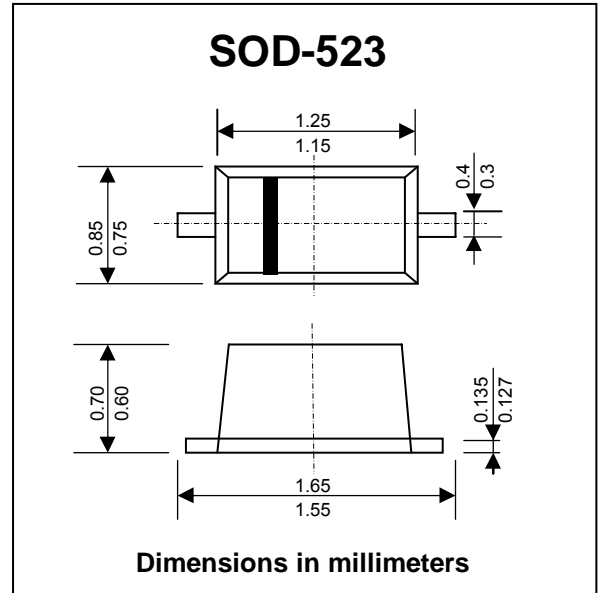
## FEATURES :

- \* Fast switching diodes.
- \* Ultra-Small Surface Mount Package
- \* For General Purpose Switching Applications
- \* High Conductance
- \* Pb / RoHS Free

## MECHANICAL DATA :

- \* Case : SOD-523 plastic
- \* Moisture Sensitivity : Level 1 per J-STD-020A
- \* Polarity : Cathode Band
- \* Terminals : Finish - Matte Tin  
Solderable per MIL-STD-202, Method 208
- \* Marking Code : " WB"

## SURFACE MOUNT FAST SWITCHING DIODE



## MAXIMUM RATINGS AND THERMAL CHARACTERISTICS (T<sub>J</sub> = 25 °C)

Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V <sub>RM</sub>	100	V
Reverse Voltage	V <sub>R</sub>	75	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	53	V
Forward Continuous Current	I <sub>FM</sub>	250	mA
Average Rectified Output Current	I <sub>F(AV)</sub>	125	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0 μs	I <sub>FSM</sub>	2.0	A
@ t = 100 μs		1.0	
Power Dissipation	P <sub>tot</sub>	150	mW
Thermal Resistance Junction to Ambient Air	R <sub>θJA</sub>	833	°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-65 to + 150	°C
Storage Temperature Range	T <sub>STG</sub>	-65 to + 150	°C

## ELECTRICAL CHARACTERISTICS (T<sub>J</sub> = 25 °C)

Parameter	Test Conditions	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage <sup>(1)</sup>	I <sub>R</sub> = 1.0 μA	V <sub>(BR)R</sub>	75	-	-	V
Forward Voltage	I <sub>F</sub> = 1.0 mA	V <sub>F</sub>	-	-	0.715	V
	I <sub>F</sub> = 10 mA		-	-	0.855	
	I <sub>F</sub> = 50 mA		-	-	1.00	
	I <sub>F</sub> = 150 mA		-	-	1.25	
Peak Reverse Current <sup>(1)</sup>	V <sub>R</sub> = 75 V	I <sub>R</sub>	-	-	1.0	μA
	V <sub>R</sub> = 75 V, T <sub>J</sub> = 150 °C		-	-	50	μA
	V <sub>R</sub> = 25 V, T <sub>J</sub> = 150 °C		-	-	30	μA
	V <sub>R</sub> = 20 V		-	-	25	nA
Total Capacitance	V <sub>R</sub> = 0 V, f = 1MHz	C <sub>T</sub>	-	-	2	pF
Reverse Recovery Time	I <sub>rr</sub> = 0.1I <sub>R</sub> , I <sub>F</sub> = I <sub>R</sub> = 10 mA, R <sub>L</sub> = 100 Ω	T <sub>rr</sub>	-	-	4	ns

**Note :** (1) Short duration pulse test used to minimize self- heating effect.

## RATING AND CHARACTERISTIC CURVES ( 1N4148WT )

FIG.1 - DERATING CURVE

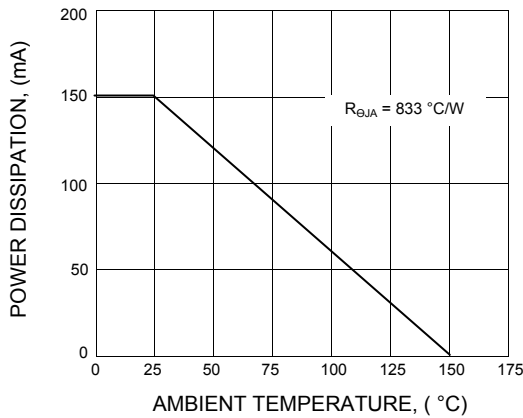


FIG.2 - TYPICAL CAPACITANCE VS. REVERSE VOLTAGE

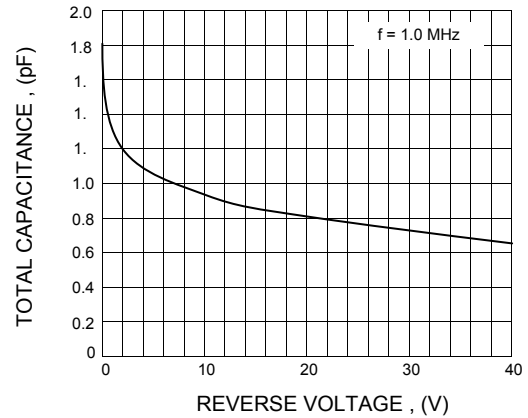


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

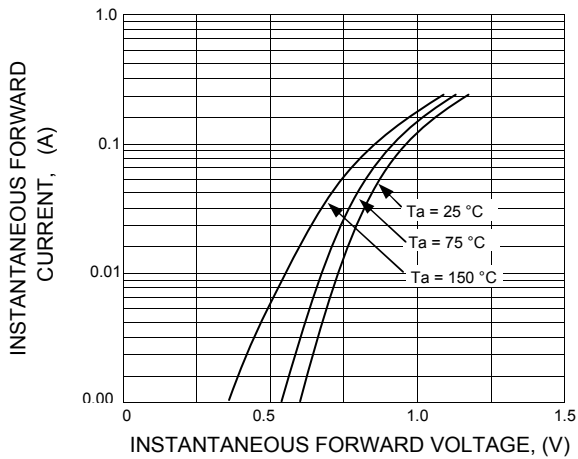


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

