



*DC COMPONENTS CO., LTD.*

RECTIFIER SPECIALISTS

1N4148WT

**TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SWITCHING DIODE**

VOLTAGE RANGE -100 Volts

CURRENT - 0.15 Ampere

**FEATURES**

- \* Fast switching speed
- \* Surface mount package ideally suited for automatic insertion
- \* Low reverse current
- \* High conductance

**MECHANICAL DATA**

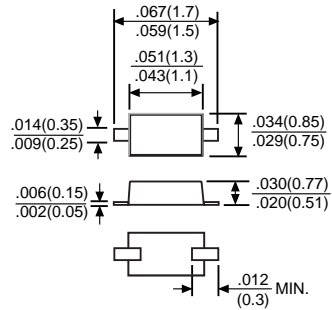
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solder plated, solderable per MIL-STD-750, Method 2026 guaranteed
- \* Mounting position: Any
- \* Weight: 0.0014 grams Approx.

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60 Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.



SOD-523



Dimensions in inches and (millimeters)

	SYMBOL	1N4148WT	UNITS
Maximum Reverse Voltage	V <sub>R</sub>	75	V
Maximum Non-Reprtitive Peak Reverse Voltage	V <sub>RM</sub>	100	V
Maximum Average Rectified Current	I <sub>o</sub>	150	mA
Peak Forward Surge Current @T=1μs	I <sub>FSM</sub>	2.0	A
Maximum Power Dissipation @TA=25°C	P <sub>tot</sub>	150	mW
Maximum Forward Voltage	V <sub>F</sub>	0.715 @ 1mA 1.25 @ 150mA	V
Maximum Reverse Current (@VR=VR Max, TA=25°C)	I <sub>R</sub>	1.0	μA
Maximum Reverse Recovery Time(Note 1)	t <sub>rr</sub>	4.0	ns
Typical Junction Capacitance(Note 2)	C <sub>J</sub>	2.0	pF
Typical Thermal Resistance	R <sub>θJA</sub>	833	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to +150	°C

Note: 1. Test conditions: I<sub>F</sub>=I<sub>R</sub>=10mA, R<sub>L</sub>=100Ω, measured at I<sub>R</sub>=1mA

2. Measured at 1MHz and V<sub>R</sub>=0

# RATING AND CHARACTERISTIC CURVES (1N4148WT)

FIG.1 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

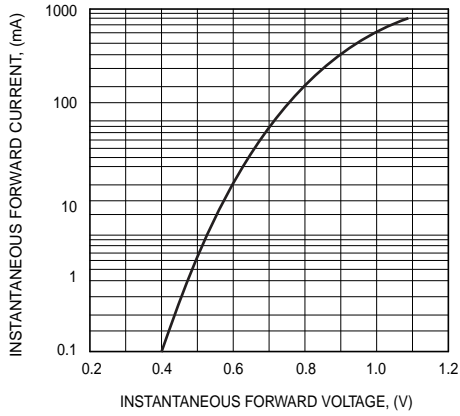


FIG.2 - TYPICAL REVERSE CHARACTERISTICS

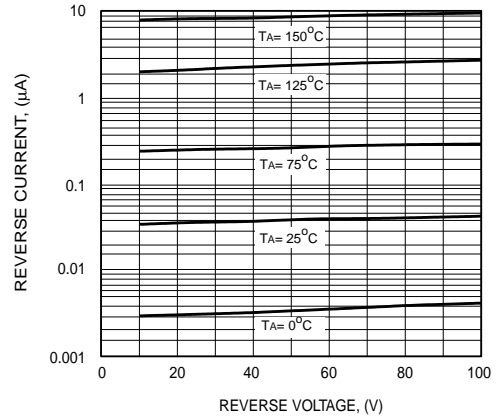


FIG.3 - TYPICAL JUNCTION CAPACITANCE

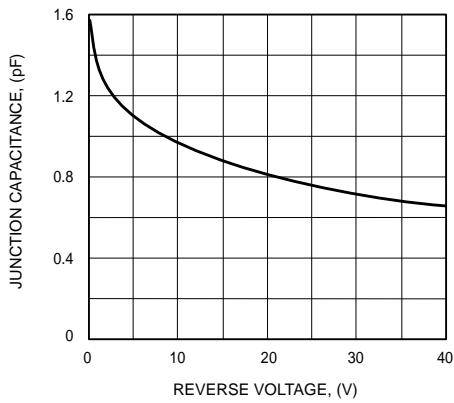
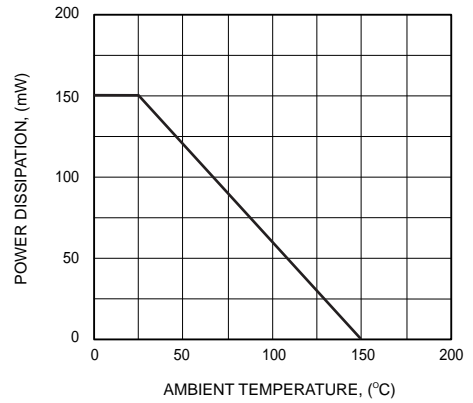


FIG.4 - POWER DERATING CIRCUIT



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