



*DC COMPONENTS CO., LTD.*

RECTIFIER SPECIALISTS

CD4148W  
CD4148WS  
CD4148WT

**TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SWITCHING DIODE**

VOLTAGE - 100 Volts

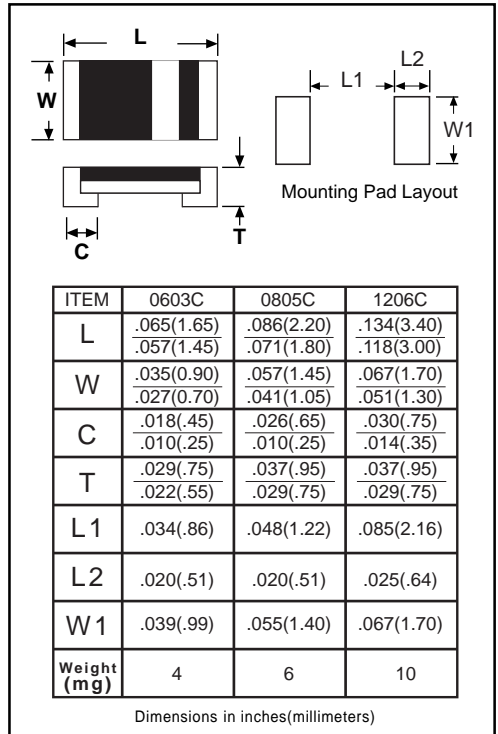
CURRENT - 0.3 Ampere

**FEATURES**

- \* Low power loss, high efficiency
- \* Low leakage
- \* Low forward voltage drop
- \* High speed switching
- \* High current capability
- \* High reliability

**MECHANICAL DATA**

- \* Case: 1206 / 0805 / 0603
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solder plated, solderable per MIL-STD-202E, Method 208 guaranteed
- \* Mounting position: Any



**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%.

	SYMBOL	CD4148WT (0603C)	CD4148WS (0805C)	CD4148W (1206C)	UNITS
Maximum Reverse Voltage	V <sub>R</sub>	75			V
Maximum Non-Repertive Peak Reverse Voltage	V <sub>RM</sub>	100			V
Maximum Average Rectified Current	I <sub>F</sub>	150			mA
Peak Forward Surge Current @T=1μs	I <sub>FSM</sub>	500			mA
Maximum Power Dissipation @TA=25°C	P <sub>tot</sub>	500			mW
Maximum Forward Voltage	V <sub>F</sub>	1.0			V
Maximum Reverse Current	V <sub>R</sub> =20V	25			nA
	V <sub>R</sub> =75V	5.0			μA
Maximum Reverse Recovery Time(Note 1)	t <sub>rr</sub>	4.0			ns
Typical Junction Capacitance(Note 2)	C <sub>J</sub>	4.0			pF
Typical Thermal Resistance	R <sub>θJA</sub>	650		450	K/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +175			°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 (CD4148W THRU CD4148WT)

FIG. 1 - FORWARD CHARACTERISTICS

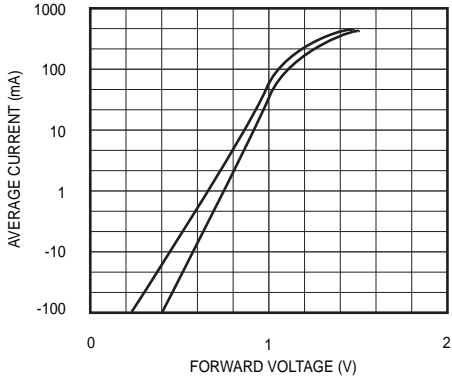


FIG. 2 - ADMISSIBLE POWER DISSIPATION vs. AMBIENT TEMPERATURE

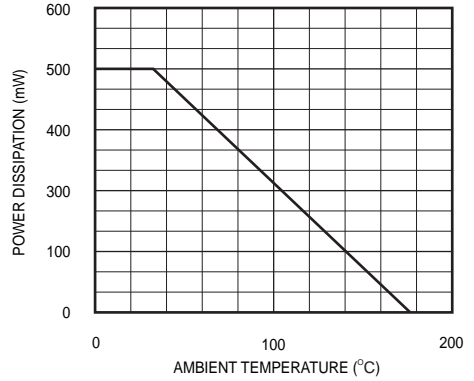


FIG. 3 - RELATIVE CAPACITANCE vs. REVERSE VOLTAGE

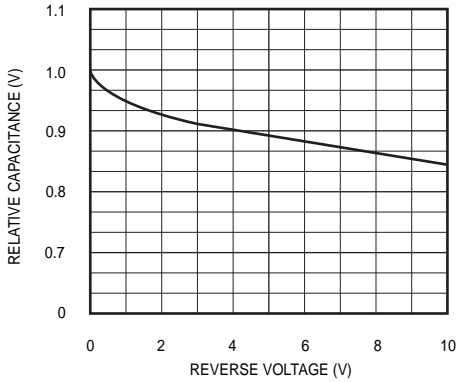


FIG. 4 - LEAKAGE CURRENT vs. JUNCTION TEMPERATURE

