



DC COMPONENTS CO., LTD.
RECTIFIER SPECIALISTS

CD4148W
CD4148WS
CD4148WT

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SWITCHING DIODE

VOLTAGE - 100 Volts

CURRENT - 0.3 Ampere

FEATURES

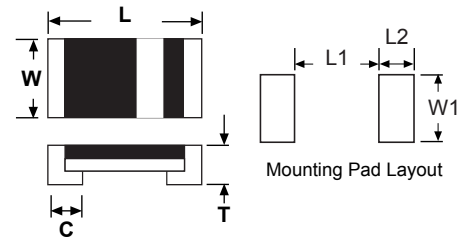
- * Low power loss, high efficiency
- * Low leakage
- * Low forward voltage drop
- * High speed switching
- * High current capability
- * High reliability

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%.



ITEM	0603C	0805C	1206C
L	.065(1.65) .057(1.45)	.086(2.20) .071(1.80)	.134(3.40) .118(3.00)
W	.035(0.90) .027(0.70)	.057(1.45) .041(1.05)	.067(1.70) .051(1.30)
C	.018(.45) .010(.25)	.026(.65) .010(.25)	.030(.75) .014(.35)
T	.029(.75) .022(.55)	.037(.95) .029(.75)	.037(.95) .029(.75)
L 1	.034(.86)	.048(1.22)	.085(2.16)
L 2	.020(.51)	.020(.51)	.025(.64)
W 1	.039(.99)	.055(1.40)	.067(1.70)
Weight (mg)	4	6	10

Dimensions in inches(millimeters)

	SYMBOL	CD4148WT (0603C)	CD4148WS (0805C)	CD4148W (1206C)	UNITS
Maximum Reverse Voltage	VR	75			V
Maximum Non-Reprtitive Peak Reverse Voltage	VRM	100			V
Maximum Average Rectified Current	IF	150			mA
Peak Forward Surge Current @T=1μs	IFSM	500			mA
Maximum Power Dissipation @TA=25°C	Ptot	500			mW
Maximum Forward Voltage	VF	1.0			V
Maximum Reverse Current	VR=20V	25			nA
	VR=75V	5.0			μA
Maximum Reverse Recovery Time(Note 1)	trr	4.0			ns
Typical Junction Capacitance(Note 2)	CJ	4.0			pF
Typical Thermal Resistance	RθJA	650		450	K/W
Operating and Storage Temperature Range	TJ,TSTG	-65 to +175			°C

Note: 1. Test conditions: IF=IR=10mA, RL=100Ω, measured at IR=1mA

2. Measured at 1MHz and VR=0

RATING AND CHARACTERISTIC CURVES (CD4148W THRU CD4148WT)

FIG. 1 - FORWARD CHARACTERISTICS

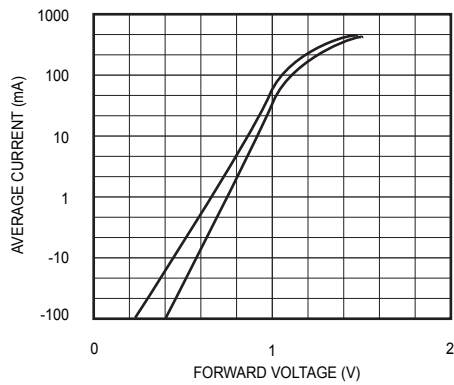


FIG. 2 - ADMISSIBLE POWER DISSIPATION
vs. AMBIENT TEMPERATURE

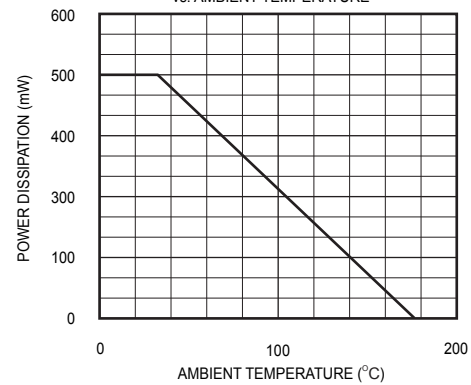


FIG. 3 - RELATIVE CAPACITANCE vs.
REVERSE VOLTAGE

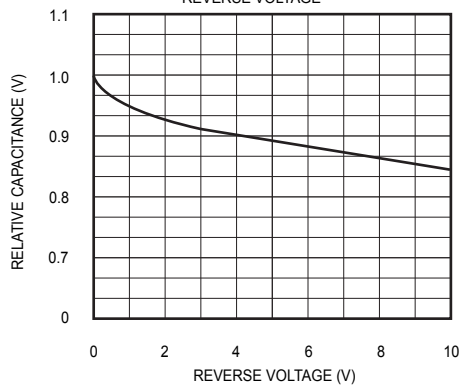
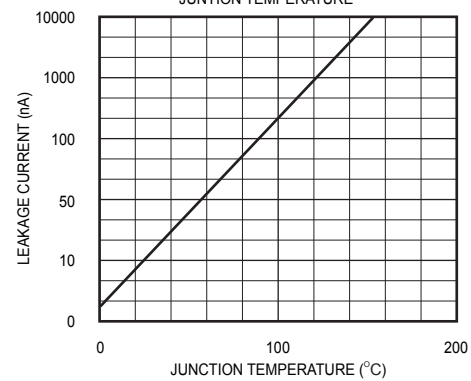


FIG. 4 - LEAKAGE CURRENT vs.
JUNCTION TEMPERATURE



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