

CR THICK FILM CHIP RESISTOR SERIES

INTRODUCTION

The most popular type of chip resistor developed for surface mount technology. Ideal for general purpose applications. Unique construction and special termination techniques ensure high quality and reliability. Extremely compact size for miniaturization.

FEATURES

- Excellent Long Term stability
- Available in Bulk and Tape & Reel packing.
- Available in Tolerances of $\pm 5\%$ & $\pm 1\%$
- Uniform body size ensures compatibility with High Speed automatic handling machines
- Compatible with flow and re-flow soldering methods

SPECIFICATIONS

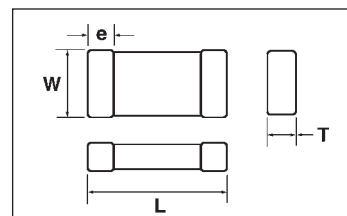
Resistance Range: 1 Ohm to 10 M Ohms for E24 values(5%)
1 Ohm to 1 M Ohms for E96 values(1%)
Rated Power: 1/16 to 1W at 70°C (Please see Power Derating Curve)
Rated Voltage: \checkmark Rated Power x Nominal Resistance.
Overload Voltage: Please refer to Power Ratings Table.
Temperature Coefficient: ± 100 ppm or ± 200 ppm per °C.
Temperature Range: -55°C to +125°C with derating above 70°C
Tolerance: $\pm 5\%$ or $\pm 1\%$ (Special tolerance upon request.).

Load Life:

The component will be subjected to 1000 hours of testing at rated voltage and 70°C, with duty cycles of 1.5 hours "on" and 0.5 hours "off". After the test the Resistance change will remain within $\pm 3\%$ of the initial value + 0.1 Ohm for values above 1 M Ohm and 5% for values less than 1 M Ohm.

Resistance to Soldering Heat:

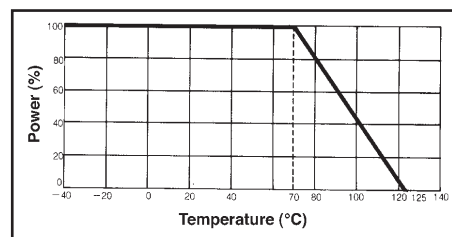
The component can be subjected to a soldering temperature of 270 °C for 10 seconds. After the test the Resistance change will remain within $\pm 3\% + 0.1$ Ohms.



Case Dimensions Table

Dimensions in mm				
Case Code	L	W	T Max	e
0402	1.0 \pm 0.05	0.5 \pm 0.05	0.35 \pm 0.05	0.25 \pm 0.15
0603	1.6 \pm 0.1	0.8 \pm 0.15	0.45 \pm 0.10	0.30 \pm 0.1
0805	2.0 \pm 0.1	1.25 \pm 0.10	0.55 \pm 0.10	0.40 \pm 0.2
1206	3.2 \pm 0.15	1.6 \pm 0.15	0.55 \pm 0.10	0.50 \pm 0.25
2010	5.0 \pm 0.15	2.5 \pm 0.15	0.55 \pm 0.15	0.60 \pm 0.2
2512	6.4 \pm 0.15	3.2 \pm 0.15	0.55 \pm 0.15	0.60 \pm 0.2

Power Derating Curve



Tape, Reel and Packing Specifications

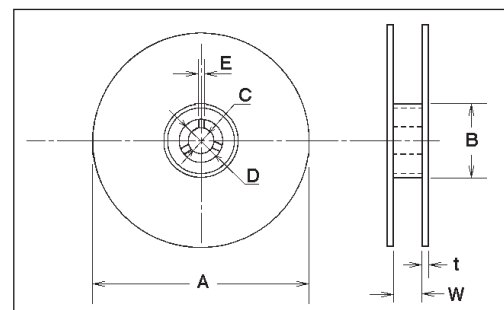
Reel Dimensions;

Reel Dimensions in Millimeters

A	B	C	D	E	W	t
$\phi 178 \pm 2.0$	$\phi 50$ min.	13.0 ± 0.5	21.0 ± 0.8	2.0 ± 0.8	8.8/12.8 ± 1.5	2.0 ± 0.5
$\phi 330 \pm 2.0$	$\phi 100$ min.	13.0 ± 0.5	21.0 ± 0.8	2.0 ± 0.8	8.8/12.8 ± 1.5	2.0 ± 0.6

Reel Dimensions in Inches

A	B	C	D	E	W	t
$\phi 7 \pm 0.08$	$\phi 2.0$ min.	5.0 ± 0.02	0.83 ± 0.03	0.08 ± 0.3	0.35/0.50 ± 0.06	0.08 ± 0.02
$\phi 13 \pm 0.08$	$\phi 4.0$ min.	5.0 ± 0.3	0.83 ± 0.03	0.08 ± 0.3	0.35/0.50 ± 0.06	0.08 ± 0.02



Power Ratings Table (Values above 10 M Ohms are available upon request)

SIZE	Rate Power at 70C	Rate Current of Jumper A	Maximum Working Voltage Vw	Maximum Overload Voltage Vo	Temperature Coefficient of Resistance ppm/C	Combination of Resistance Range of Tolerance		Operating Temperature Range C
						F (+1%) (E96)	J (+5%) (E24)	
0402	1/16		50	100	+ 100	10 Ohms-562 K Ohms	10 Ohms - 1 M Ohms	
					± 200	1 Ohm-9.76 Ohms		
0603	1/10	1	50	100	+ 100	10 Ohms-1 M Ohms	1 Ohm- 10 M Ohms	
					± 200	1 Ohm - 9.76 Ohms		
0805	1/8		150	300	+ 100	10 Ohms - 1 M Ohms	1 Ohm - 10 M Ohms	
					± 200	1 Ohm - 9.76 Ohms		
1206	1/4				+ 100	10 Ohms-1 M Ohms	1 Ohm - 10 M Ohms	-55 - + 125
					± 200	1 Ohm - 9.76 Ohms		
2010	3/4	2			+ 100	10 Ohms - 1 M Ohms	1 Ohm - 10 M Ohms	
					± 200	1 Ohm - 9.76 Ohms		
2512	1		200	400	+ 100	10 Ohms - 1 M Ohms	1 Ohm - 10 M Ohms	
					± 200	1 Ohm - 9.76 Ohms		

