

CRW Series

Power Chip Resistors



- Resistances from 0.10hm to 100MOhms
- Power Rating 0.35 to 2Watts
- Resistance Tolerances to $\pm 0.5\%$
- TCR's to $\pm 50\text{ppm}/^\circ\text{C}$
- Improved Pulse Rating on Un-trimmed parts
- Thick Film Resistance Element
- Sizes: 1210 / 1216 / 2010 / 2040 / 2512 / 4020



SPECIFICATIONS

Type	1210	1216	2010	2040	2512 (M) ²	4020 (M) ²	
Power Rating (W) ¹	0.35	0.5	0.75	2.0	1.5	2.0	
Working Voltage (VAC)	Trimmed	200	200	250	250	300 (1000)	500 (4000)
	Untrimmed	600	600	900	900	1200 (2000)	1500 (6000)
Resistance Range (Ω)	Tolerances Available (%) Temperature Coefficients Available ($\pm \text{ppm}/^\circ\text{C}$) ³						
0.1 Ω - <1 Ω	5% to 20% 250	5% to 20% 250	5% to 20% 250	5% to 20% 250	5% to 20% 250	5% to 20% 250	
1 Ω - <100 Ω	1% to 20% 100 / 250	1% to 20% 100 / 250	1% to 20% 100 / 250	1% to 20% 100 / 250	1% to 20% 100 / 250	1% to 20% 100 / 250	
100 Ω - 100M	1% to 20% 50 / 100	1% to 20% 50 / 100	1% to 20% 50 / 100	1% to 20% 50 / 100	0.5% to 20% 50 / 100	0.5% to 20% 50 / 100	

¹ W @ 70 °C / 0W @ 155 °C

(Note: Solder pads must be of sufficient size to dissipate power)

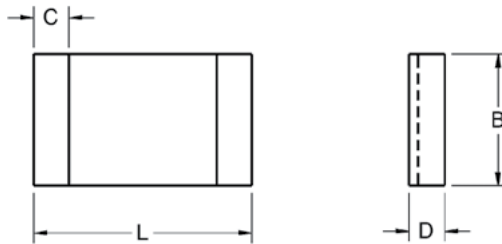
² (M) Meander structure with higher working voltage.

³ 50 PPM : +25°C to +125°C

Specification	Value
Temperature Range	-55°C to +155°C
Climactic Category	55 / 155 / 56
Solderability	250°C / 3s
Max. Soldering Temperature	260°C / 10s

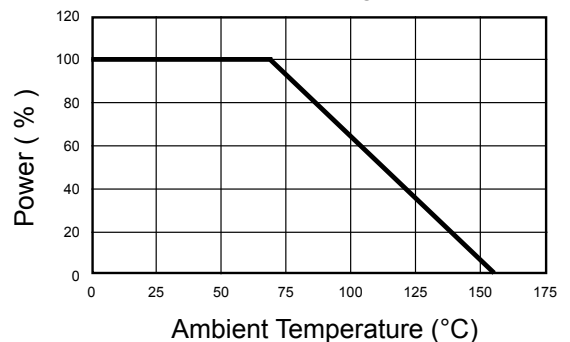
SPECIFICATIONS (continued)

Long Term Stability	Max ΔR	
	<10Ω	10Ω - 100M
Storage 125°C / 1000h	±1%	±0.5%
Storage 155°C / 1000h	±2%	±1%
Load Life / P=70% / 70°C / 1000h	±2%	±1%
Short term overload	±0.5%	±0.25%
Humidity / 96%RH / 40°C / 56 days	±1%	±0.5%



Type	Dimensions			
	L	B	D	C
CRW 1210	0.126 +0.008 / -0.002 [3.2 +0.2 / -0.05]	0.098 +0.008 / -0.002 [2.5 +0.2 / -0.05]	0.020 +0.008 / -0.004 [0.5 +0.2 / -0.1]	0.032 ±0.008 [0.8 ±0.2]
CRW 1216	0.126 +0.008 / -0.002 [3.2 +0.2 / -0.05]	0.160 +0.008 / -0.002 [4.1 +0.2 / -0.05]	0.020 +0.008 / -0.004 [0.5 +0.2 / -0.1]	0.032 ±0.008 [0.8 ±0.2]
CRW 2010	0.200 +0.008 / -0.002 [5.1 +0.2 / -0.05]	0.098 +0.008 / -0.002 [2.5 +0.2 / -0.05]	0.024 +0.008 / -0.004 [0.6 +0.2 / -0.1]	0.047 ±0.008 [1.2 ±0.2]
CRW 2040	0.200 +0.008 / -0.002 [5.1 +0.2 / -0.05]	0.400 +0.008 / -0.002 [10.2 +0.2 / -0.05]	0.024 +0.008 / -0.004 [0.6 +0.2 / -0.1]	0.047 ±0.008 [1.2 ±0.2]
CRW 2512	0.250 +0.006 / -0.002 [6.3 +0.15 / -0.05]	0.138 +0.008 / -0.002 [3.5 +0.2 / -0.05]	0.024 +0.006 / -0.002 [0.6 +0.15 / -0.05]	0.035 ±0.008 [0.9 ±0.2]
CRW 4020	0.400 +0.006 / -0.002 [10.2 +0.15 / -0.05]	0.200 +0.008 / -0.002 [5.1 +0.2 / -0.05]	0.024 +0.006 / -0.002 [0.6 +0.15 / -0.05]	0.035 ±0.008 [0.9 ±0.2]

Power Derating Curve



Packaging:

Bulk or Blister tape to IEC 60286-3

- Tape width 8mm / Reel Diameter 180 or 330mm
- Minimum quantity Bulk / 100 pieces per value
- Minimum quantity Tape & Reel / 1000 pieces per value

Ordering Information

Part Description: Part Type - Resistance - Tolerance - TCR - Packaging

Example: CRW 2040 50 Ohm 5% 100ppm Tape

(Note: if no TCR is specified, the highest value will be supplied)