

CRS Series

Thick Film Chip Resistors



- Resistances from 0.1Ohm to 500MOhms
- Power Rating 0.1 to 0.25Watt
- Resistance Tolerances to $\pm 0.5\%$
- TCR's to ± 50 ppm/ $^{\circ}\text{C}$
- Thick Film Resistance Element
- Sizes: 0504 / 0603 / 0805 / 1206

SPECIFICATIONS

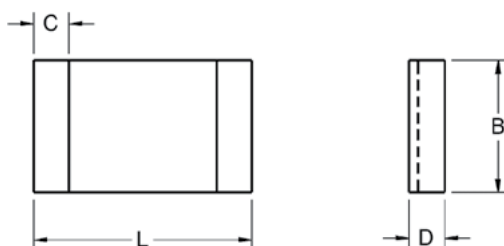
Type		0504	0603	0805	1206
Power Rating (W) ¹		0.10	0.10	0.125	0.25
Working Voltage (VAC)	Trimmed	50	75	100	200
	Untrimmed ($\geq 5\%$ tol.)	100	150	200	400
Resistance Range (Ω)		Tolerances Available (%) Temperature Coefficients Available ($\pm$ ppm/ $^{\circ}\text{C}$) ² (lower TCR upon request)			
0.1 Ω - <1 Ω		-	10% to 20% 250	5% to 20% 250	5% to 20% 250
1 Ω - <10 Ω		5% to 20% 100 / 250	5% to 20% 100 / 250	2% to 20% 100 / 250	2% to 20% 100 / 250
10 Ω - <100 Ω		2% to 10% 100	1% to 10% 100	1% to 10% 50 / 100	1% to 10% 50 / 100
100 Ω - 1M		1% to 10% 50 / 100	1% to 10% 50 / 100	0.5% to 10% 50 / 100	0.5% to 10% 50 / 100
>1M - 10M		1% to 10% 50 / 100	1% to 10% 50 / 100	0.5% to 10% 50 / 100	0.5% to 10% 50 / 100
>10M - 100M		2% to 20% 100 / 250	1% to 20% 50 / 100	0.5% to 20% 50 / 100	0.5% to 20% 50 / 100
>100M - 500M		-	5% to 20% 100 / 250	2% to 20% 100 / 250	2% to 20% 100 / 250

¹W @ 70 $^{\circ}\text{C}$ / 0W @ 155 $^{\circ}\text{C}$
²50 PPM : +25 $^{\circ}\text{C}$ to +125 $^{\circ}\text{C}$

Specification	Value
Temperature Range	-55 $^{\circ}\text{C}$ to +155 $^{\circ}\text{C}$
Climactic Category	55 / 155 / 56
Solderability	250 $^{\circ}\text{C}$ / 3s
Max. Soldering Temperature	260 $^{\circ}\text{C}$ / 10s

SPECIFICATIONS (continued)

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



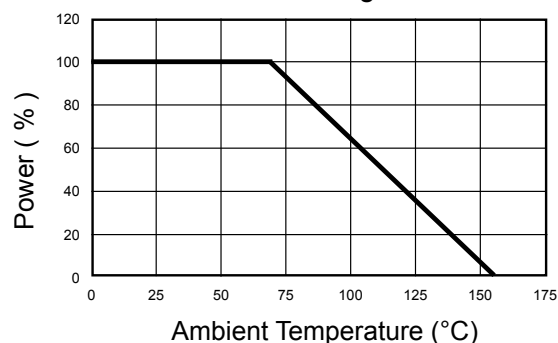
Type (larger sizes upon request)	Dimensions			
	L	B	D	C
CRS 0504	0.050 +0.006 / -0.002 [1.25 +0.15 / -0.05]	0.040 +0.006 / -0.002 [1.0 +0.15 / -0.05]	0.012 +0.006 / -0.002 [0.3 +0.15 / -0.05]	0.008 +0.008 / -0.004 [0.2 +0.2 / -0.1]
CRS 0603	0.060 +0.006 / -0.002 [1.5 +0.15 / -0.05]	0.030 +0.006 / -0.002 [0.8 +0.15 / -0.05]	0.016 +0.006 / -0.002 [0.4 +0.15 / -0.05]	0.008 +0.008 / -0.004 [0.2 +0.2 / -0.1]
CRS 0805	0.080 +0.006 / -0.002 [2.0 +0.15 / -0.05]	0.050 +0.006 / -0.002 [1.25 +0.15 / -0.05]	0.016 +0.006 / -0.002 [0.4 +0.15 / -0.05]	0.012 +0.008 / -0.004 [0.3 +0.2 / -0.1]
CRS 1206	0.126 +0.006 / -0.002 [3.2 +0.15 / -0.05]	0.060 +0.008 / -0.002 [1.5 +0.2 / -0.05]	0.016 +0.006 / -0.002 [0.4 +0.15 / -0.05]	0.012 +0.008 / -0.004 [0.3 +0.2 / -0.1]

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 / 500 pieces per value

Power Derating Curve



Ordering Information

Part Description: Part Type - Resistance - Tolerance - TCR

Example: CRS 0603 1 Ohm 5% 100ppm

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