

# CRS Series

Thick Film Chip Resistors



- Resistances from 0.10Ohm to 500MOhms
- Power Rating 0.1 to 0.25Watt
- Resistance Tolerances to  $\pm 0.5\%$
- TCR's to  $\pm 50$  ppm/K
- Thick Film Resistance Element
- Sizes: 0504 / 0603 / 0805 / 1206

## SPECIFICATIONS

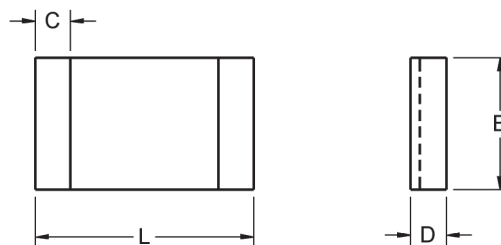
Type	0504	0603	0805	1206
Power Rating ( W ) <sup>1</sup>	0.10	0.10	0.125	0.25
Working Voltage ( VAC )	Trimmed	50	75	100
	Untrimmed	150	220	300
Resistance Range ( $\Omega$ )	Tolerances Available ( % ) Temperature Coefficients Available ( $\pm$ ppm/K ) <sup>2</sup> (lower TCR upon request)			
0.1 $\Omega$ - <1 $\Omega$	-	10% to 20% 250	5% to 20% 250	5% to 20% 250
1 $\Omega$ - <10 $\Omega$	5% to 20% 100 / 250	5% to 20% 100 / 250	2% to 20% 100 / 250	2% to 20% 100 / 250
10 $\Omega$ - <100 $\Omega$	2% to 10% 100	1% to 10% 100	1% to 10% 50 / 100	1% to 10% 50 / 100
100 $\Omega$ - 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

<sup>1</sup>W @ 70 °C / 0W @ 155 °C  
<sup>2</sup>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 $\Delta R$		
	<10 $\Omega$	10 $\Omega$ - 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	$\pm 1\%$	$\pm 0.5\%$	$\pm 1\%$



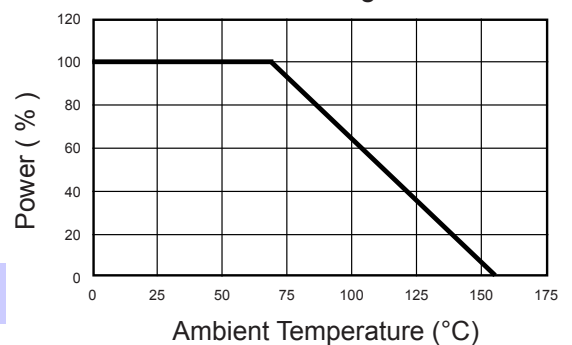
Type (larger sizes upon request)	Dimensions			
	L	B	D	C
<b>CRS 0504</b>	0.050 $+0.006 / -0.002$ [ 1.25 $+0.15 / -0.05$ ]	0.040 $+0.006 / -0.002$ [ 1.0 $+0.15 / -0.05$ ]	0.012 $+0.006 / -0.002$ [ 0.3 $+0.15 / -0.05$ ]	0.008 $+0.008 / -0.004$ [ 0.2 $+0.2 / -0.1$ ]
<b>CRS 0603</b>	0.060 $+0.006 / -0.002$ [ 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 $+0.2 / -0.1$ ]
<b>CRS 0805</b>	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 $+0.2 / -0.1$ ]
<b>CRS 1206</b>	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 / 1000 pieces per value

Power Derating Curve



### Ordering Information

Part Number - Resistance - Tolerance - TCR - Packaging

Example: CRS 0603 1 Ohm 5% 100ppm Tape

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