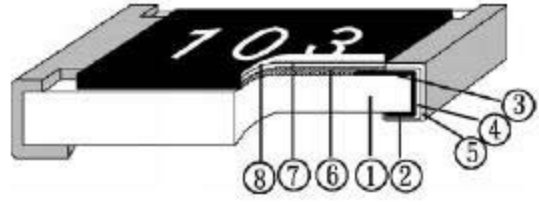
Thick Film Chip Resistor—CR Series

■ Construction



1	Alumina Substrate	5	External Electrode (Sn)
2	Bottom Electrode (Ag)	6	Resistor Layer (RuO_2)
3	Top Electrode (Ag/Pd)	7	Primary Overcoat (Glass)
4	Barrier Layer (Ni)	8	Secondary Overcoat (Epoxy)

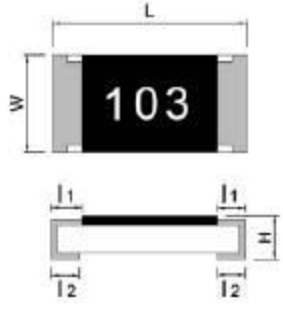
■ Application

- Entertainment: Stereo, TV tuners, Tape recorder
- Appliance: Air conditioner, Refrigerator
- Computer & relative products: Main board, PDA
- Communication equipment: Cell phone, Fax machine
- Power equipment: Power supply, Illumination equipment
- Measuring instrument: Electric meter, Navigation equipment

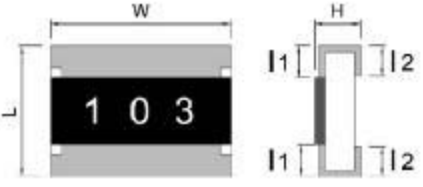
■ Features

- Small size and light weight
- Reduction of assembly costs and matching with placement machines
- Reliability, high quality and fast delivery

Type Dimension



CR0201 / CR0402 / CR0603 / CR0805 / CR1206 / CR1210 / CR1812 / CR2010 / CR2512



CR1218 / CR2030

Dimension

Unit: mm

TYPE	L	W	H	I_1	I_2
CR0201	0.60 ± 0.03	0.30 ± 0.03	0.23 ± 0.05	0.15 ± 0.05	0.15 ± 0.05
CR0402	1.00 ± 0.10	0.50 ± 0.05	0.30 ± 0.05	0.15 ± 0.10	0.20 ± 0.10
CR0603	1.60 ± 0.20	0.80 ± 0.15	0.40 ± 0.10	0.20 ± 0.10	0.30 ± 0.10
CR0805	2.00 ± 0.20	1.25 ± 0.15	0.50 ± 0.15	0.30 ± 0.15	0.40 ± 0.15
CR1206	3.05 ± 0.10	1.60 ± 0.20	0.55 ± 0.15	0.40 ± 0.20	0.50 ± 0.20
CR1210	3.05 ± 0.10	2.50 ± 0.20	0.55 ± 0.15	0.50 ± 0.20	0.50 ± 0.20
CR1812	4.50 ± 0.10	3.00 ± 0.10	0.55 ± 0.05	0.55 ± 0.20	0.70 ± 0.20
CR2010	5.00 ± 0.20	2.50 ± 0.20	0.55 ± 0.10	0.60 ± 0.20	0.60 ± 0.20
CR1218	3.10 ± 0.10	4.60 ± 0.10	0.55 ± 0.05	0.40 ± 0.20	0.50 ± 0.20
CR2512	6.30 ± 0.20	3.20 ± 0.20	0.55 ± 0.10	0.60 ± 0.20	0.60 ± 0.20
CR2030	5.10 ± 0.10	7.60 ± 0.10	0.60 ± 0.05	0.80 ± 0.20	0.80 ± 0.20

Standard & High Power Electrical Specifications

Item / Type	Rated Power at 70℃		Max Working Voltage	Max Overload Voltage	T.C.R. (PPM/℃)	Resistance Range			Operating Temperature Range
	Standard	High				B(±0.1%) D(±0.5%)	F(±1%) G±(2%)	J(±5%) K(±10%)	
CR0201	0.05 W	-	25V	50V	±200	-	10Ω~1MΩ	10Ω~1MΩ	-55℃ ~ +155℃
CR0402	0.063 W	-	50V	100V	0~+400	-	1Ω~9.9Ω	1Ω~9.9Ω	
					±300	-	10Ω~990Ω	10Ω~990Ω	
					±200	10Ω~1MΩ	1KΩ~10MΩ	1KΩ~10MΩ	
CR0603	0.1 W	0.125 W	50V	100V	±400	-	1Ω~9.9Ω	1Ω~9.9Ω	
					±200	-	-	10Ω~10MΩ	
					±100	10Ω~1MΩ	10Ω~10MΩ	-	
CR0805	0.125 W	0.25 W	150V	300V	±400	-	1Ω~9.9Ω	1Ω~9.9Ω	
					±200	-	-	10Ω~10MΩ	
					±100	10Ω~1MΩ	10Ω~10MΩ	-	
CR1206	0.25 W	0.5 W	200V	400V	±400	-	1Ω~9.9Ω	1Ω~9.9Ω	
					±200	-	-	10Ω~10MΩ	
					±100	10Ω~1MΩ	10Ω~10MΩ	-	
CR1210	0.33 W	0.66 W	200V	400V	±400	-	1Ω~9.9Ω	1Ω~9.9Ω	
					±200	-	-	10Ω~10MΩ	
					±100	10Ω~1MΩ	10Ω~10MΩ	-	
CR1812	0.5 W	1 W	200V	400V	±400	-	1Ω~9.9Ω	1Ω~9.9Ω	
					±200	-	-	10Ω~10MΩ	
					±100	10Ω~1MΩ	10Ω~10MΩ	-	
CR2010	0.5 W	1 W	200V	400V	±400	-	1Ω~9.9Ω	1Ω~9.9Ω	
					±200	-	-	10Ω~10MΩ	
					±100	10Ω~1MΩ	10Ω~10MΩ	-	
CR1218	1 W	2 W	200V	400V	±400	-	1Ω~9.9Ω	1Ω~9.9Ω	
					±200	-	-	10Ω~10MΩ	
					±100	10Ω~1MΩ	10Ω~10MΩ	-	
CR2512	1 W	2 W	200V	400V	±400	-	1Ω~9.9Ω	1Ω~9.9Ω	
					±200	-	-	10Ω~10MΩ	
					±100	10Ω~1MΩ	10Ω~10MΩ	-	
CR2030	2 W	3 W	200V	400V	±400	-	1Ω~9.9Ω	1Ω~9.9Ω	
					±200	-	-	10Ω~10MΩ	
					±100	10Ω~1MΩ	10Ω~10MΩ	-	

Type	0201	0402	0603	0805	1206	1210	1812	2010	1218	2512	2030
Jumper Rated Current	0.5A	1A			2A						

SMD RESISTOR ASSORTMENT

- Surface mounting resistors, total 144 Values
- Size: 0805 Length: 2.00±0.1, Width:1.25±0.1, Thickness:0.5±0.1
- Tolerance: 5%
- Each value 50pcs per bag with printed label
- Max overload voltage: 200V
- Operation temperature: -50°C to +120°C

Model no.	Description
16-500	50pcs each 144 values of the below chart, packed in two components box, 72 values each per box.
16-501	50pcs each 72 values (marked ◎) of the below chart, packed in components box.

2.2R	22R	160R	910R	6.2K	43K	300K	2.0M
◎ 2.4R	◎ 24R	◎ 180R	◎ 1.9K	◎ 6.8K	◎ 47K	◎ 330K	◎ 2.2M
2.7R	27R	200R	1.2K	7.5K	51K	360K	2.4M
◎ 3.0R	◎ 30R	◎ 220R	◎ 1.5K	◎ 8.2K	◎ 56K	◎ 390K	◎ 2.7M
3.3R	33R	240R	1.6K	9.1K	62K	430K	3.0M
◎ 3.9R	◎ 39R	◎ 270R	◎ 1.8K	◎ 10K	◎ 68K	◎ 470K	◎ 3.3M
4.3R	43R	300R	2.0K	12K	75K	510K	3.6M
◎ 4.7R	◎ 47R	◎ 330R	◎ 2.2K	◎ 15K	◎ 82K	◎ 560K	◎ 3.9M
5.1R	51R	360R	2.4K	16K	91K	620K	4.3M
◎ 5.6R	◎ 56R	◎ 390R	◎ 2.7K	◎ 18K	◎ 100K	◎ 680K	◎ 4.7M
6.2R	62R	430R	3.0K	20K	120K	750K	5.1M
◎ 6.8R	◎ 68R	◎ 470R	◎ 3.3K	◎ 22K	◎ 150K	◎ 820K	◎ 5.6M
7.5R	75R	510R	3.6K	24K	160K	910K	6.2M
◎ 8.2R	◎ 82R	◎ 560R	◎ 3.9K	◎ 27K	◎ 180K	◎ 1.0M	◎ 6.8M
9.1R	91R	620R	4.3K	30K	200K	1.2M	7.5M
◎ 10R	◎ 100R	◎ 680R	◎ 4.7K	◎ 33K	◎ 240K	◎ 1.5M	◎ 8.2M
12R	120R	750R	5.1K	36K	270K	1.6M	9.1M
◎ 20R	◎ 150R	◎ 820R	◎ 5.6K	◎ 39K	◎ 300K	◎ 1.8M	◎ 10M