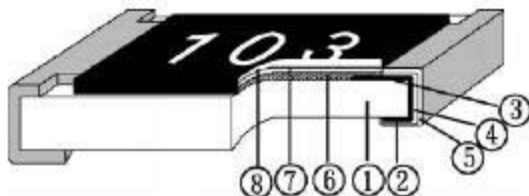


Thick Film Chip Resistor—CR Series



■ 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)

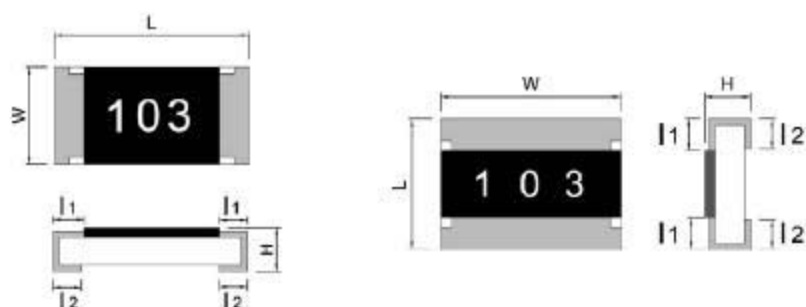
■ Application

- 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	l_1	l_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 °C		Max Working Voltage	Max Overload Voltage	T.C.R. (PPM/°C)	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°C - +150°C
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	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	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	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	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	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	10Ω~10MΩ	
					±100	10Ω~1MΩ	10Ω~10MΩ	-	
CR1216	1 W	2 W	200V	400V	±400	-	1Ω~9.9Ω	1Ω~9.9Ω	
					±200	-	10Ω~10MΩ	10Ω~10MΩ	
					±100	10Ω~1MΩ	10Ω~10MΩ	-	
CR2512	1 W	2 W	200V	400V	±400	-	1Ω~9.9Ω	1Ω~9.9Ω	
					±200	-	10Ω~10MΩ	10Ω~10MΩ	
					±100	10Ω~1MΩ	10Ω~10MΩ	-	
CR2030	2 W	3 W	200V	400V	±400	-	1Ω~9.9Ω	1Ω~9.9Ω	
					±200	-	10Ω~10MΩ	10Ω~10MΩ	
					±100	10Ω~1MΩ	10Ω~10MΩ	-	

Type	0201	0402	0603	0805	1206	1210	1812	2010	1216	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 $+120^{\circ}\text{C}$

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 \odot) of the below chart, packed in components box.

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

