

【CR Series】

Thick Film Chip Resistor Thick Film Chip Resistor



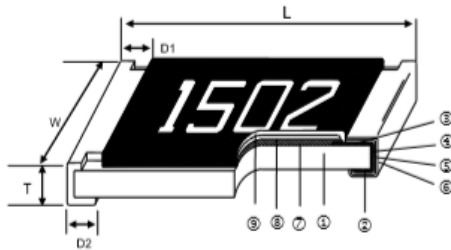
■Scope

- This specification applies to all sizes of rectangular-type fixed chip resistors with Ruthenium-base as material.

■Features

- Small size and light weight
- Highly reliable multilayer electrode construction
- Compatible with all soldering process
- Long side terminations

■Construction



■Applications

- Telecommunication Equipments
- Radio and Tape Recorders, TV Tuners
- Digital Cameras, Watches, Pocket Calculators
- Computers, Instruments
- Medical and Military Equipment

① Alumina Substrate	④ Edge Electrode	⑦ Resistor Layer
② Bottom Electrode	⑤ Barrier Layer	⑧ Primary Overcoat
③ Top Electrode	⑥ External Electrode	⑨ Secondary Overcoat

■Dimensions

Type	Size (Inch)	L (mm)	W (mm)	T (mm)	D1 (mm)	D2 (mm)	Weight (g) (1000pcs)
CR-E5	01005	0.40±0.02	0.20±0.02	0.13±0.02	0.10±0.03	0.10±0.03	0.037
CR-01	0201	0.60±0.03	0.30±0.03	0.23±0.03	0.15±0.05	0.15±0.05	0.150
CR-02	0402	1.00±0.05	0.50±0.05	0.35±0.05	0.20±0.10	0.20±0.10	0.620
CR-03	0603	1.60±0.10	0.80±0.10	0.45±0.10	0.30±0.20	0.30±0.20	2.042
CR-05	0805	2.00±0.10	1.25±0.10	0.50±0.10	0.35±0.20	0.40±0.20	4.368
CR-06	1206	3.10±0.10	1.55±0.10	0.55±0.10	0.50±0.25	0.50±0.20	8.947
CR-10	1210	3.10±0.10	2.60±0.15	0.55±0.10	0.50±0.25	0.50±0.20	15.959
CR-0A	2010	5.00±0.10	2.50±0.15	0.55±0.10	0.60±0.25	0.50±0.20	24.241
CR-12	2512	6.35±0.10	3.10±0.15	0.55±0.10	0.60±0.25	0.50±0.20	39.448
CR-25	1225	3.20±0.15	6.45±0.15	0.90±0.15	0.60±0.30	0.80±0.25	64.88
CR-62	0612	1.55±0.10	3.10±0.15	0.55±0.10	0.25±0.15	0.35±0.15	9.31

■ Standard Electrical Specifications

Item Type	Power Rating at 70°C Jumper Rated Current	Operating Temp. Range	Max. Operating Voltage	Max. Overload Voltage	Resistance Range		TCR (PPM/°C)
					±1%(E24 - E96)	±5%(E24)	
CR-E5 (01005)	1/32W	-55 ~ +125°C	15V	30V	10Ω - 1MΩ		±300
	Jumper: 0.5A				-	0Ω (<50mΩ)	-
CR-01 (0201)	1/20W	-55 ~ +125°C	25V	50V	1Ω - 10MΩ		±200
	Jumper: 1A				-	0Ω (<50mΩ)	-
CR-02 (0402)	1/16W	-55 ~ +155°C	50V	100V	1Ω - 9.76Ω 10Ω - 1MΩ 1.02MΩ - 20MΩ 20.5MΩ - 100MΩ		±200 ±100 ±200 ±400
	Jumper: 1A				-	0Ω (<50mΩ)	-
CR-03 (0603)	1/10W	-55 ~ +155°C	75V	150V	1Ω - 9.76Ω 10Ω - 1MΩ 1.02MΩ - 20MΩ 20.5MΩ - 100MΩ		±200 ±100 ±200 ±400
	Jumper: 1A				-	0Ω (<50mΩ)	-
CR-05 (0805)	1/8W	-55 ~ +155°C	150V	300V	1Ω - 9.76Ω 10Ω - 1MΩ 1.02MΩ - 20MΩ 20.5MΩ - 100MΩ		±200 ±100 ±200 ±400
	Jumper: 2A				-	0Ω (<50mΩ)	-
CR-06 (1206)	1/4W	-55 ~ +155°C	200V	400V	1Ω - 9.76Ω 10Ω - 1MΩ 1.02MΩ - 20MΩ 20.5MΩ - 100MΩ		±200 ±100 ±200 ±400
	Jumper: 2A				-	0Ω (<50mΩ)	-
CR-10 (1210)	1/3W	-55 ~ +155°C	200V	400V	1Ω - 9.76Ω 10Ω - 1MΩ 1.02MΩ - 20MΩ 20.5MΩ - 39MΩ		±200 ±100 ±200 ±400
	Jumper: 2.5A				-	0Ω (<50mΩ)	-

Topmay P/N	Power rating	SIZE	Resistance	Tolerance
TMCR03J 100R 1/10W	1/10W	0603	100 OHM	5%
TMCR02F301R 1/16W	1/16W	0402	301K OHM	1%
TMCR02F10R 1/16W	1/16W	0402	100K OHM	1%
TMCR02F4.02R 1/16W	1/16W	0402	4.02K OHM	1%
TMCR03F 191R 1/10W	1/10W	0603	191 OHM	1%