



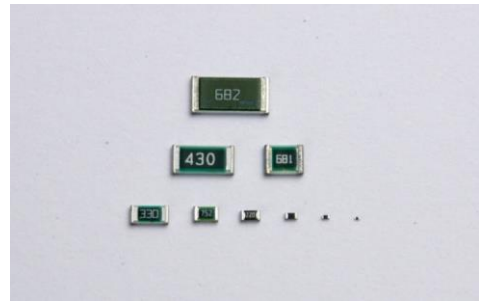
Chip Fixed Resistors

Model No.

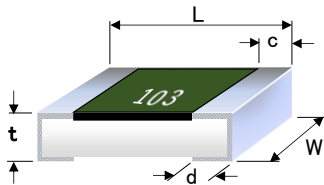
CR**

■ Features

- Utilizes a metal-based glaze Thick Film,
Excellent heat resistance and weather resistance.
- Compliant with European RoHS Compliance.



■ Dimensions



Product Name	L	W	t	c	d
CR04	0.40±0.02	0.20±0.02	0.13±0.02	0.10±0.03	0.10±0.03
CR06	0.60±0.03	0.30±0.03	0.23±0.03	0.12±0.05	0.15±0.05
CR10	1.00±0.05	0.50±0.05	0.35±0.05	0.20±0.10	0.25±0.10
CR16	1.60±0.15	0.80 ^{+0.20} _{-0.10}	0.45±0.10	0.25±0.20	0.25±0.20
CR20	2.00 ^{+0.20} _{-0.10}	1.25 ^{+0.20} _{-0.10}	0.50±0.10	0.40±0.20	0.40±0.20
CR32	3.20 ^{+0.10} _{-0.15}	1.60 ^{+0.10} _{-0.15}	0.55 ^{+0.15} _{-0.05}	0.50±0.20	0.50±0.20
CR35	3.20 ^{+0.10} _{-0.15}	2.60 ^{+0.10} _{-0.15}	0.55 ^{+0.15} _{-0.05}	0.50±0.20	0.50±0.20
CR50	5.00±0.15	2.50±0.15	0.56±0.15	0.60±0.25	0.60±0.25
CR64	6.30±0.15	3.20±0.15	0.56±0.15	0.60±0.25	0.60±0.25

■ Specifications

Model	Rated Power (W)	Resistance Value Tolerance	Resistance Value Range (Ω)	TCR (ppm/°C)	Max. Working voltage	Max. Overload voltage	0 Ω	
							Rated Current	Resistance Value
CR04	0.030	F-grade (±1%) G-grade (±2%) J-grade (±5%)	10 to 1M	±250	15V	30V	0.3	50M Ω or less
CR06	0.050	F-grade (±1%)	10 to 1M	±200	25V	50V	0.5	
		Grade G (±2%)	10 to 1M	±200				
		J-grade (±5%)	1.0~9.1	±400				
CR10 *2	0.100 *1	J-grade (±5%)	10 to 1M	±200	50V	100V	1.0	
		Class D (±0.5%)	10~97.6	±100				
		Class D (±0.5%)	100~1M	±50				
		F-grade (±1%)	10 to 1M	±100				
		Grade G (±2%)	10 to 1M	±200				
CR16 *2	0.125	J-grade (±5%)	1.0~9.1	±300	50V	100V	1.5	
		J-grade (±5%)	10 to 10M	±200				
		Class D (±0.5%)	100~976	±100				
		Class D (±0.5%)	1K to 100K	±50				
		F-grade (±1%)	10 to 1M	±100				
CR20 *2	0.250	Grade G (±2%)	10 to 1M	±200	150V	200V	1.5	
		J-grade (±5%)	1.0~4.3	-100~+600				
		J-grade (±5%)	4.7 to 3.3M	±200				
		J-grade (±5%)	3.6M-10M	±300				
		Class D (±0.5%)	100 to 1K	±100				
	0.250 *1	F-grade (±1%)	10 to 1K	±100	150V	200V	2.0	
		Grade G (±2%)	10 to 1K	±200				
		J-grade (±5%)	1.0~4.3	-100~+600				
		J-grade (±5%)	4.7 to 1K	±200				
		Class D (±0.5%)	1.02K to 100K	±100				
F-grade (±1%)	1.02K to 1M	±100						
Grade G (±2%)	1.1K to 1M	±200						
J-grade (±5%)	1.1K to 3.3M	±200						
J-grade (±5%)	3.6M-10M	±300						
K-grade (±10%)	11M to 22M	±300						

Model	Rated Power (W)	Resistance Value Tolerance	Resistance Value Range (Ω)	TCR (ppm/° C)	Max. Working voltage	Max. Overload voltage	0 Ω	
							Rated Current	Resistance Value
CR32 *2	0.250	Class D (±0.5%)	100 to 100K	±100	200V	400V	2.0	50M Ω or less
		F-grade (±1%)	10 to 1M	±100				
		Grade G (±2%)	10 to 1M	±200				
		J-grade (±5%)	1.0~4.3	-100~+600				
		J-grade (±5%)	4.7 to 3.3M	±200				
		J-grade (±5%)	3.6M to 10M	±300				
CR35 *2	0.500	F-grade (±1%)	10 to 1M	±100	200V	400V	2.0	50M Ω or less
		Grade G (±2%)	10 to 1M	±200				
		J-grade (±5%)	1~4.3	-100~+600				
		J-grade (±5%)	4.7 to 3.3M	±200				
		J-grade (±5%)	3.6M to 10M	±300				
CR50	0.750	F-grade (±1%)	10 to 1M	±200	200V	400V	2.0	50M Ω or less
		Grade G (±2%)	10 to 1M	±300				
		J-grade (±5%)	1.0~9.1	±500				
		J-grade (±5%)	10 to 1M	±300				
CR64	1.000	J-grade (±5%)	1.0~9.1	±500	200V	400V	2.0	50M Ω or less
		J-grade (±5%)	10 to 1M	±300				

*1 Short-Term Overload Test conditions: Apply Rated Voltage × 2.5 for 5 seconds ⇒ Apply 1.5 times voltage for 5 seconds.

*2 Resistance Value range: For Class F (±1%) values from 1.0Ω to 9.1Ω, please consult us.

★We also manufacture E-96 series resistors with F-class and D-class Resistance Value Tolerance.

★Use at rated voltage below rated power. Rated Voltage can be calculated using the formula on the right.

★If the Rated Voltage exceeds the Max. Working voltage, use a voltage below the Max. Working voltage.

★Operating Temperature Range: -55° C to +155° C (except CR04), -55° C to +125° C (CR04)

$$E = \sqrt{PR}$$

E= Rated Voltage (V)

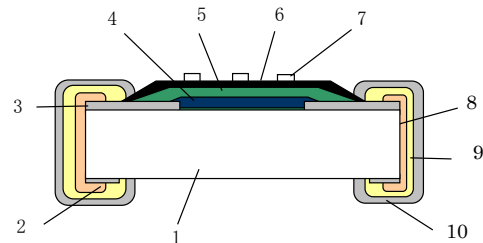
P= Rated Power (W)

R= Resistance (Ω)

Compliant
with AEC-Q200

Structure

Product Name	ACR062, ACR102, ACR104, ACR164, NCR164, NCR104, NCR162, NCR168, NCR3A8/NCR3B8
No.	Component Name
1	Ceramic Substrate
2	Back Electrode
3	Surface Electrode
4	Resistor
5	Protective coat I
6	Protective coat II
7	Marking
8	Side electrode
9	Ni plating
10	Sn Plating



*Design and specifications are subject to change without notice. Please confirm before purchase and use.