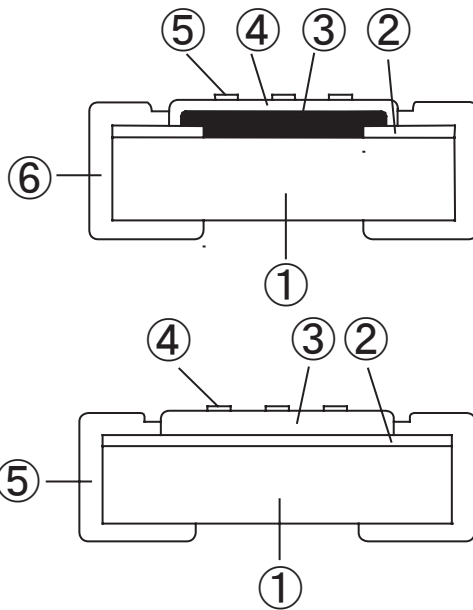


*1 Model No.	CR04 (CR1/32)	CR06 (CR1/20)	CR10 (CR1/16S)	CR16 (CR1/16)	CR20 (CR1/10)	CR32 (CR1/8)	CR35 (CR1/4)	CR50 (CR1/2)	CR64 (CR1)
Size Code inch	01005	0201	0402	0603	0805	1206	1210	2010	2512
Size Code mm	0402	0603	1005	1608	2012	3216	3225	5025	6432

\*1 ( ): Conventional Model No.

■ Construction



Symbol	Material List
①	Alumina substrate
②	Conductor
③	Resistive film
④	Over coat
⑤	Marking *2
⑥	Side termination

Symbol	Material List
①	Alumina substrate
②	Conductor
③	Over coat
④	Marking *2
⑤	Side termination

\*2 No marking on CR04, CR06, CR10, CR16 (E-96 Series)

■ Model Designation

Conventional Model No.

CR1/16	102	J	V
①	②	③	④

Model No.

CR16	-	102	J	V
①		②	③	④

Model No. for user who requires it.

CR16	-	102	J	V	G
①		②	③	④	⑤

⑤TCR	
Symbol	TCR (ppm/°C)
G	± 50
H	± 100
K	± 250
M	± 500

① Model No.	② Resistance	③ Tolerance (%)		④ Packaging	
		Symbol	Tolerance	Symbol	Packaging
CR04(CR1/32)	3 or 4 digit	D	± 0.5	B	Bulk
CR06(CR1/20)	(Resistance) (Marking)	F	± 1.0	V	Paper taping
CR10(CR1/16S)	0Ω → 000	G	± 2.0	E	Embossed taping
CR16(CR1/16)	4.7Ω → 4R7	J	± 5.0		
CR20(CR1/10)	1kΩ → 102	K	± 10.0		
CR32(CR1/8)	1.02kΩ → 1021				
CR35(CR1/4)					
CR50(CR1/2)					
CR64(CR1)					

0Ω type is no marking



## Rating

*1 Model No.	Rated Wattage (W)	Tolerance (%)		Resistance (Ω)	T.C.R. (ppm /°C)	Max. Working Voltage (V)	Max. Overload Voltage (V)	Ω Type	
								Rated Current (A)	Resistance (Ω)
CR04	0.03	F	±1	10~1M	±250	15	30	0.3	Max. 50m Ω
		G	±2	10~1M	±250				
		J	±5	10~1M	±250				
CR06 (CR1/20)	0.05	F	±1	10~1M	±200	25	50	0.5	Max. 50m Ω
		G	±2	10~1M	±200				
		J	±5	1.0~9.1	±400				
		J	±5	10~10M	±200				
CR10 (CR1/16S)	0.10	*2	±0.5	10~97.6	±100	50	100	1.0	Max. 50m Ω
		D	±0.5	100~1M	±50				
		F	±1	10~1M	±100				
		G	±2	10~1M	±200				
		J	±5	1.0~9.1	±300				
		J	±5	10~10M	±200				
CR16 (CR1/16)	0.125	D	±0.5	100~976	±100	50	100	1.0	Max. 50m Ω
		D	±0.5	1K~100K	±50				
		F	±1	10~1M	±100				
		G	±2	10~1M	±200				
		J	±5	1~4.3	-100~+600				
		J	±5	4.7~3.3M	±200				
		J	±5	3.6M~10M	±300				
CR20 (CR1/10)	0.25	D	±0.5	100~1K	±100	150	200	1.5	Max. 50m Ω
		F	±1	10~1K	±100				
		G	±2	10~1K	±200				
		J	±5	1~4.3	-100~+600				
		J	±5	4.7~1K	±200				
	*2	D	±0.5	1.02K~100K	±100				
		F	±1	1.02K~1M	±100				
		G	±2	1.1K~1M	±200				
		J	±5	1.1K~3.3M	±200				
		J	±5	3.6M~10M	±300				
CR32 (CR1/8)	0.25	D	±0.5	100~100K	±100	200	400	2.0	Max. 50m Ω
		F	±1	10~1M	±100				
		G	±2	10~1M	±200				
		J	±5	1~4.3	-100~+600				
		J	±5	4.7~3.3M	±200				
		J	±5	3.6M~10M	±300				
		K	±10	11M~22M	±300				
CR35 (CR1/4)	0.50	D	±0.5	100~100K	±100	200	400	2.0	Max. 50m Ω
		F	±1	10~1M	±100				
		G	±2	10~1M	±200				
		J	±5	1~4.3	-100~+600				
		J	±5	4.7~3.3M	±200				
		J	±5	3.6M~10M	±300				
CR50 (CR1/2)	0.75	F	±1	10~1M	±200	200	400	2.0	Max. 50m Ω
		G	±2	10~1M	±300				
		J	±5	1.0~9.1	±500				
		J	±5	10~1M	±300				
CR64 (CR1)	1.00	J	±5	1.0~9.1	±500	200	400	2.0	Max. 50m Ω
		J	±5	10~1M	±300				

\*1 ( ): Conventional Model No.

\*2 Short-time overload test condition : Voltage equal to 2.5times rated voltage ⇒ Voltage equal to 1.5 times rated voltage

★E-96 series resistance values are available for D class F class.

★Please apply the rated voltage or lower.

Rated voltage is calculated by  $E = \sqrt{PR}$

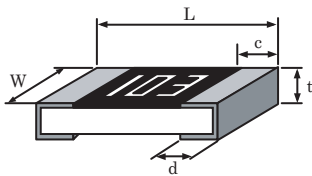
E = Rated Voltage (V)  
P = Rated Power (W)  
R = Resistance (Ω)

★In case rated voltage calculation is excess of maximum working voltage, maximum or lower voltage be applied.



# Flat Chip Resistors

## Dimension



Model No. *1	L	W	c	d	t
CR04 (CR1/32)	0.40 ± 0.02	0.20 ± 0.02	0.10 ± 0.03	0.10 ± 0.03	0.13 ± 0.02
CR06 (CR1/20)	0.60 ± 0.03	0.30 ± 0.03	0.12 ± 0.05	0.15 ± 0.05	0.23 ± 0.03
CR10 (CR1/16S)	1.00 ± 0.05	0.50 ± 0.05	0.20 ± 0.10	0.25 ± 0.10	0.35 ± 0.05
CR16 (CR1/16)	1.60 ± 0.15	0.80 <sup>+0.20</sup> <sub>-0.10</sub>	0.25 ± 0.20	0.25 ± 0.20	0.45 ± 0.10
CR20 (CR1/10)	2.00 <sup>+0.20</sup> <sub>-0.10</sub>	1.25 <sup>+0.20</sup> <sub>-0.10</sub>	0.40 ± 0.20	0.40 ± 0.20	0.50 ± 0.10
CR32 (CR1/8)	3.20 <sup>+0.10</sup> <sub>-0.15</sub>	1.60 <sup>+0.10</sup> <sub>-0.15</sub>	0.50 ± 0.20	0.50 ± 0.20	0.55 <sup>+0.15</sup> <sub>-0.05</sub>
CR35 (CR1/4)	3.20 <sup>+0.10</sup> <sub>-0.15</sub>	2.60 <sup>+0.10</sup> <sub>-0.15</sub>	0.50 ± 0.20	0.50 ± 0.20	0.55 <sup>+0.15</sup> <sub>-0.05</sub>
CR50 (CR1/2)	5.00 ± 0.15	2.50 ± 0.20	0.60 ± 0.25	0.60 ± 0.25	0.56 ± 0.15
CR64 (CR1)	6.30 ± 0.15	3.20 ± 0.20	0.60 ± 0.25	0.60 ± 0.25	0.56 ± 0.15

\*1 ( ): Conventional Model No.

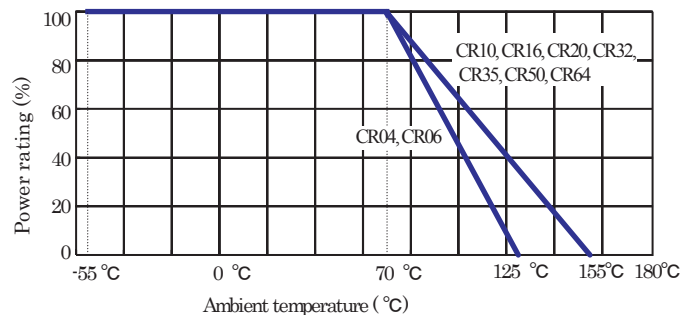
## Power rating

For resistors operated in ambient temperature above 70 °C, power rating must be derated in accordance with the derating curve.

Operating temperature range

CR10~CR64: -55°C+155°C

CR04, CR06: -55°C+125°C



## Packaging

Refer "Dimension, Packaging, etc."