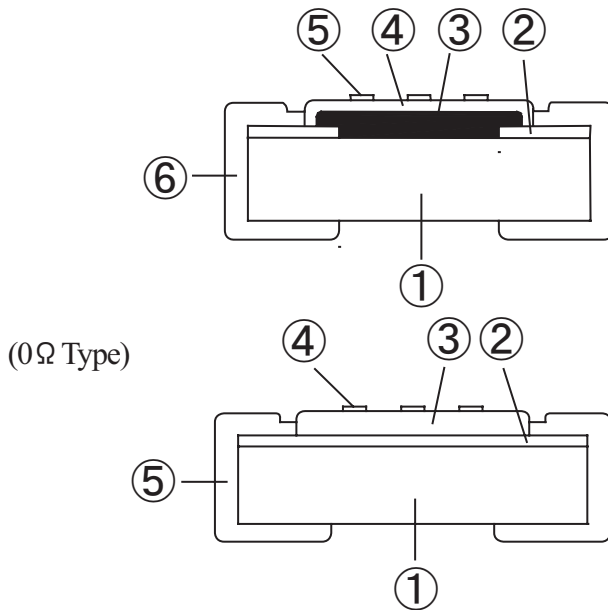


*1 Model No.	CR04 (CR1/32)	CR06 (CR1/20)	CR10 (CR1/16S)	CR16 (CR1/16)	CR20 (CR1/10)	CR32 (CR1/8)	CR35 (CR1/4)	CR50 (CR1/2)	CR64 (CR1)
Size Code inch	01005	0201	0402	0603	0805	1206	1210	2010	2512
Size Code mm	0402	0603	1005	1608	2012	3216	3225	5025	6432

*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

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

① Model No.	② Resistance
CR04(CR1/32)	3 or 4 digit
CR06(CR1/20)	(Resistance) (Marking)
CR10(CR1/16S)	0Ω → 000
CR16(CR1/16)	4.7Ω → 4R7
CR20(CR1/10)	1kΩ → 102
CR32(CR1/8)	1.02kΩ → 1021
CR35(CR1/4)	
CR50(CR1/2)	
CR64(CR1)	

③ Tolerance (%)	
Symbol	Tolerance
D	± 0.5
F	± 1.0
G	± 2.0
J	± 5.0
K	± 10.0

0Ω type is no marking

④ Packaging	
Symbol	Packaging
B	Bulk
V	Paper taping
E	Embossed taping
C	Bulk case



Rating

*1 Model No.	Rated Wattage (%)	Tolerance (%)		Resistance Range E-24, E-96 Series Standard (%)	T.C.R. (Ω)	Max. Working Voltage (%)	Max. Overload Voltage (%)	0Ω Type					
								Rated Current (A)	Resistance (Ω)				
CR04 (CR1/32)	0.03	F	±1	10 ~ 1M	±250	15	30	0.3	Max. 50mΩ				
		G	±2	10 ~ 1M	±250								
		J	±5	10 ~ 1M	±250								
CR06 (CR1/20)	0.050	F	±1	10 ~ 1M	±200	25	50			0.5	Max. 50mΩ		
		G	±2	10 ~ 1M	±200								
		J	±5	10 ~ 10M 1 ~ 9.1	±200 ±400								
CR10 (CR1/16S)	0.063	D	±0.5	100 ~ 1M	±50	50	100					1.0	Max. 50mΩ
		D	±0.5	10 ~ 91	±100								
		F	±1	10 ~ 1M	±100								
		G	±2	10 ~ 1M	±200								
		J	±5	10 ~ 10M 1 ~ 9.1	±200 ±300								
CR16 (CR1/16)	0.100	D	±0.5	100 ~ 100k	±50	50	100	1.0	Max. 50mΩ				
		D	±0.5	100 ~ 976	±100								
		F	±1	10 ~ 1M	±100								
		G	±2	10 ~ 1M	±200								
		J	±5	1 ~ 4.3 4.7 ~ 3.3M 3.6M ~ 10M	-100 ~ ±600 ±200 ±300								
CR20 (CR1/10)	0.125	D	±0.5	100 ~ 100k	±100	150	200			1.5	Max. 50mΩ		
		F	±1	10 ~ 1M	±100								
		G	±2	10 ~ 1M	±200								
		J	±5	1 ~ 4.3 4.7 ~ 3.3M 3.6M ~ 10M	-100 ~ ±600 ±200 ±300								
		K	±10	11M ~ 22M	±300								
CR32 (CR1/8)	0.250	D	±0.5	100 ~ 100k	±100	200	400	2.0	Max. 50mΩ				
		F	±1	10 ~ 1M	±100								
		G	±2	10 ~ 1M	±200								
		J	±5	1 ~ 4.3 4.7 ~ 3.3M 3.6M ~ 10M	-100 ~ ±600 ±200 ±300								
		K	±10	11M ~ 22M	±300								
CR35 (CR1/4)	0.250	F	±1	10 ~ 1M	±100	200	400			2.0	Max. 50mΩ		
		G	±2	10 ~ 1M	±200								
		J	±5	1 ~ 4.3 4.7 ~ 3.3M 3.6M ~ 10M	-100 ~ ±600 ±200 ±300								
CR50 (CR1/2)	0.500	G	±2	10 ~ 1M	±300	200	400					2.0	Max. 50mΩ
		J	±5	1 ~ 1M	±500								
CR64 (CR1)	1.000	J	±5	1 ~ 9.1 10 ~ 1M	±500 ±300	200	400	2.0	Max. 50mΩ				

*1 (): Conventional Model No.

★ Operating temperature range CR10~CR64: 55°C ~ +155°C
CR04, CR06: -55°C ~ +125°C

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

★ Please apply the rated voltage or lower.

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

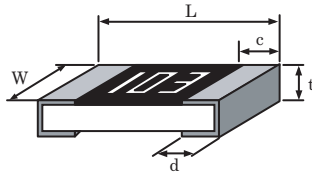
E = Rated Voltage (V)

P = Rated Power (W)

R = Resistance (Ω)

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

Dimension

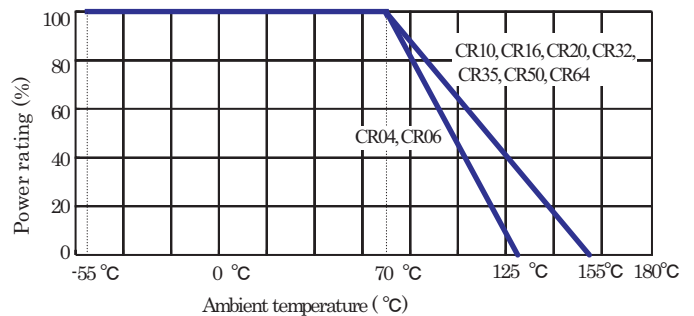


Model No. *1	L	W	c	d	t
CR04 (CR1/32)	0.40 ± 0.02	0.20 ± 0.02	0.10 ± 0.03	0.10 ± 0.03	0.12 ± 0.02
CR06 (CR1/20)	0.60 ± 0.03	0.30 ± 0.03	0.12 ± 0.05	0.15 ± 0.05	0.23 ± 0.03
CR10 (CR1/16S), LCR10 (LCR1/16S) CRS10, LCRS10	1.00 ± 0.05	0.50 ± 0.05	0.20 ± 0.10	0.25 ± 0.10	0.35 ± 0.05
CR16 (CR1/16), LCR16 (LCR1/16) FCR16 (FCR1/16), CRS16, LCRS16	1.60 ± 0.15	0.80 ^{+0.20} -0.10	0.25 ± 0.20	0.25 ± 0.20	0.50 ^{+0.15} -0.05
CR20 (CR1/10), LCR20 (LCR1/10) UCR20 (UCR1/10), FCR20 (FCR1/10) CRS20, LCRS20	2.00 ^{+0.20} -0.10	1.25 ^{+0.20} -0.10	0.40 ± 0.20	0.40 ± 0.20	0.50 ^{+0.15} -0.05
CR32 (CR1/8), LCR32 (LCR1/8) ECR32, FCR32 (FCR1/8) CRS32, LCRS32	3.20 ^{+0.10} -0.15	1.60 ^{+0.10} -0.15	0.50 ± 0.20	0.50 ± 0.20	0.55 ^{+0.15} -0.05
CR35 (CR1/4), LCR35 (LCR1/4) FCR35 (FCR1/4), CRS35, LCRS35	3.20 ^{+0.10} -0.15	2.60 ^{+0.10} -0.15	0.50 ± 0.20	0.50 ± 0.20	0.55 ^{+0.15} -0.05
CR50 (CR1/2), LCR50 (LCR1/2) ECR50, FCR50 (FCR1/2) CRS50, LCRS50	5.00 ± 0.15	2.50 ± 0.20	0.60 ± 0.25	0.60 ± 0.25	0.56 ± 0.15
CR64 (CR1) LCR64 (LCR1)	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

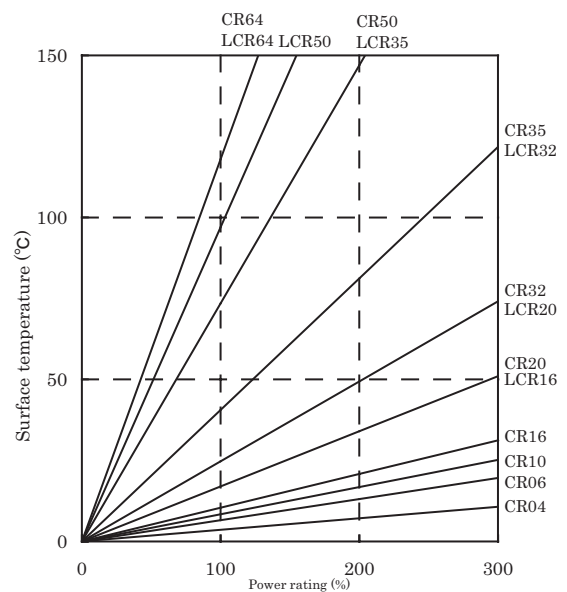
For resistors operated in ambient temperature above 70 °C, power rating must be derated in accordance with the derating curve.



Surface temperature

Surface temperature rise is shown in this figure.

Please notice that CR50 and CR64 have high temperature rise when Loaded 100%.



Packaging

Refer "Dimension, Packaging, etc."