

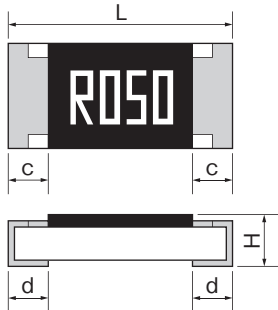
## RLC

Halogen Free

Antimony Free

● **Features** Most suitable for a detection of current in power source circuits, motor circuits, etc.  
Please refer to Specification (Reference) at the Website to confirm the specification for more detail.

### ● Dimensions



Rated resistance is marked with 4-digit on the over coating. (RLC20~RLC63)  
RLC10 : only No marking is available.  
Please contact KAMAYA for marking of RLC16.

Style	Metric	Inch	L	W	H	c	d	*Unit weight/pc.
RLC10	1005	0402	1.0±0.05	0.5 ±0.05	0.35±0.05	0.2±0.1	0.25 <sup>+0.05</sup> <sub>-0.10</sub>	0.6mg
RLC16	1608	0603	1.6±0.1	0.8 <sup>+0.15</sup> <sub>-0.05</sub>	0.45±0.10	0.3±0.1	0.3 ±0.1	2mg
RLC20	2012	0805	2.0±0.15	1.25±0.10	0.6 ±0.1	0.4±0.2	0.4 ±0.2	5mg
RLC32	3216	1206	3.1±0.2	1.6 ±0.15	0.6 ±0.1	0.5±0.25	0.3 <sup>+0.2</sup> <sub>-0.1</sub>	9mg
RLC35	3225	1210	3.1±0.2	2.5 ±0.15	0.6 ±0.15	0.5±0.25	0.3 <sup>+0.2</sup> <sub>-0.1</sub>	16mg
RLC50	5025	2010	5.0±0.2	2.5 ±0.15	0.6 ±0.15	0.6±0.2	0.6 ±0.2	25mg
RLC63	6332	2512	6.3±0.2	3.2 ±0.15	0.6 ±0.15	0.6±0.2	0.6 ±0.2	40mg

Unit : mm

\*Values for reference

### ● Ratings

Style	Size Metric (Inch)	Rated Dissipation at 70°C W	Rated Current Range A	Combinations of Rated Resistance Range, Temperature Coefficient of Resistance and Tolerance on Rated Resistance			Isolation Voltage V	Category Temperature Range °C
				Rated Resistance Range	Tolerance on Rated Resistance	Temperature Coefficient of Resistance 10 <sup>-6</sup> /°C		
RLC10	1005 (0402)	0.125	0.11~1.11	100mΩ~430mΩ 470mΩ~3.3Ω 3.6Ω~10Ω	F, J F, G, J F, J	0~+300 0~+200 ±100	100	-55~+125
RLC16	1608 (0603)	0.25	0.14~1.58	100mΩ~180mΩ 200mΩ~430mΩ 470mΩ~3.3Ω 3.6Ω~10Ω	F, G, J F, J	0~+250 0~+200 ±100	500	
RLC20	2012 (0805)	0.33	0.15~2.56	50mΩ~180mΩ 200mΩ~430mΩ 470mΩ~3.3Ω 3.6Ω~10Ω	F, G, J F, J	0~+250 0~+200 ±100		
RLC32	3216 (1206)	0.5	0.18~3.16	50mΩ~180mΩ 200mΩ~430mΩ 470mΩ~3.3Ω	F, G, J F, J	0~+250 0~+200 ±100		
RLC35	3225 (1210)	0.66	0.44~3.63	50mΩ~180mΩ 200mΩ~430mΩ	F, G, J	0~+250 0~+200		
RLC50	5025 (2010)	0.75	0.47~3.87	470mΩ~3.3Ω	F, G, J	±100		
RLC63	6332 (2512)	1.0	0.55~4.47					

Note1. Rated Current =  $\sqrt{(\text{Rated Dissipation})/(\text{Rated Resistance})}$  Note2. Rated Voltage =  $\sqrt{(\text{Rated Dissipation}) \times (\text{Rated Resistance})}$ . (d.c. or a.c. r.m.s. Voltage)  
Note3. Limiting Element Voltage\*1 is set up on RLC16, 20, 32, and rated current is not applied in the range of following rated of Resistance\*2.

\*1 RLC16=1.41V, RLC20=1.58V, RLC32=1.81V \*2 RLC16 and RLC20 : 7.5Ω < R, RLC32 : 6.2Ω < R

The Rated Current in the above range of the Rated Resistance Value is calculated as below way.

Rated Current=Limiting Element Voltage/Rated Resistance

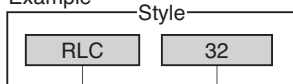
### ● Rated Resistance

50mΩ R050	82mΩ R082	200mΩ R200	430mΩ R430	750mΩ R750	1.6Ω 1R60	4.3Ω 4R30
51mΩ R051	90mΩ R090	220mΩ R220	470mΩ R470	800mΩ R800	1.8Ω 1R80	4.7Ω 4R70
56mΩ R056	91mΩ R091	240mΩ R240	500mΩ R500	820mΩ R820	2.0Ω 2R00	5.1Ω 5R10
60mΩ R060	100mΩ R100	250mΩ R250	510mΩ R510	900mΩ R900	2.2Ω 2R20	5.6Ω 5R60
62mΩ R062	110mΩ R110	270mΩ R270	560mΩ R560	910mΩ R910	2.4Ω 2R40	6.2Ω 6R20
65mΩ R065	120mΩ R120	300mΩ R300	600mΩ R600	1.0Ω 1R00	2.7Ω 2R70	6.8Ω 6R80
68mΩ R068	130mΩ R130	330mΩ R330	620mΩ R620	1.1Ω 1R10	3.0Ω 3R00	7.5Ω 7R50
70mΩ R070	150mΩ R150	360mΩ R360	650mΩ R650	1.2Ω 1R20	3.3Ω 3R30	8.2Ω 8R20
75mΩ R075	160mΩ R160	390mΩ R390	680mΩ R680	1.3Ω 1R30	3.6Ω 3R60	9.1Ω 9R10
80mΩ R080	180mΩ R180	400mΩ R400	700mΩ R700	1.5Ω 1R50	3.9Ω 3R90	10Ω 100

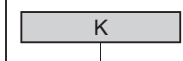
Note3. Other nominal resistances values are also available, please contact KAMAYA for further information.

### ● Part Number Description

Example



Size		
Code	Metric	Inch
10	1005	0402
16	1608	0603
20	2012	0805
32	3216	1206
35	3225	1210
50	5025	2010
63	6332	2512



Rated Resistance  
e.g.: R050=50m ohm  
R100=100m ohm  
1R00=1 ohm  
100=10 ohm

Temperature Coefficient of Resistance	
K	±100 × 10 <sup>-6</sup> /°C
-	0~+200 × 10 <sup>-6</sup> /°C
-	0~+250 × 10 <sup>-6</sup> /°C
-	0~+300 × 10 <sup>-6</sup> /°C



Tolerance on Rated Resistance	
F	±1%
G	±2%
J	±5%

* Packaging & Standard Qty. (Min.)			
B	Bulk (Loose Package)	1,000pcs.	All Styles
TH	Paper Tape(2mm pitch)	10,000pcs.	RLC10
TP	Paper Tape	5,000pcs.	RLC16 RLC20 RLC32
TE	Embossed Tape	4,000pcs.	RLC35 RLC50 RLC63

\*Refer to Tape and Packaging information on pages 22 and 23.