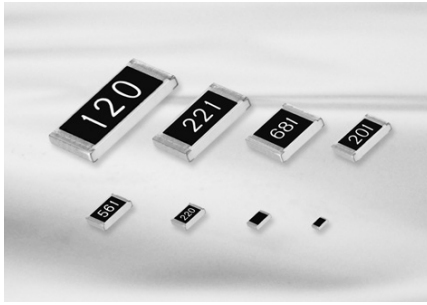


General Purpose



Feature

- Very small, thin, and light weight.
- Both flow and reflow soldering are applicable.
- Owing to the reduced lead inductance, the high frequency characteristic is excellent.
- Suitable size and packaging for surface mount assembly.

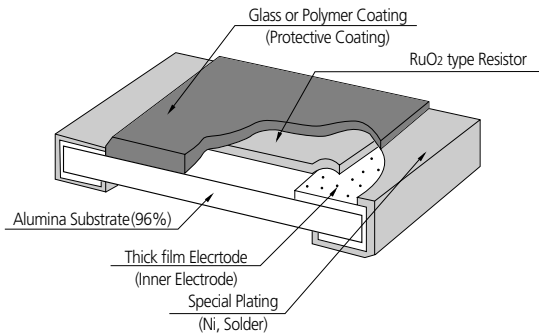
The product of lead-free terminal is RoHS compliant. PbO(lead oxide) is included in the glass of our product which is prescribed on RoHS appendix as an exception.

Application

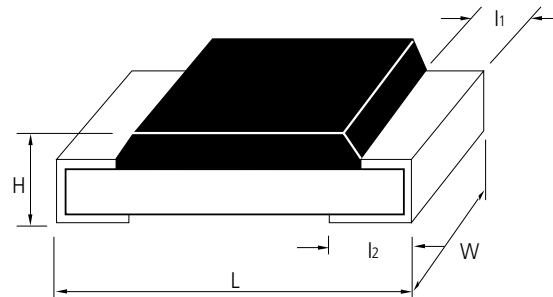
- General purpose
- Home Appliances (DVD, Digital TV, CAMCODER, VTR, Digital Camera, Audio, Tunner)
- For Computers & Communications (Notebook, Memory Module, Mobile, Network Equipment, etc)

Structure and Dimensions

• Structure



• Dimensions



(UNIT: mm)

Type	Inch	Power(W)	L	W	H	l ₁	l ₂	Average Weight
RC0603	0201	1/20	0.60±0.03	0.30±0.03	0.23±0.03	0.1±0.05	0.15±0.05	0.15mg
RC1005	0402	1/16	1.00±0.05	0.50±0.05	0.35±0.05	0.20±0.10	0.25±0.10	0.6mg
RC1608	0603	1/10	1.60±0.10	0.80±0.15	0.45±0.10	0.30±0.20	0.35±0.10	2.1mg
RC2012	0805	1/8	2.00±0.20	1.25±0.15	0.50±0.10	0.40±0.20	0.35±0.20	4.9mg
RC3216	1206	1/4	3.20±0.20	1.60±0.15	0.55±0.10	0.45±0.20	0.40±0.20	9.5mg
RC3225	1210	1/3	3.20±0.20	2.55±0.20	0.55±0.10	0.45±0.20	0.40±0.20	16mg
RC5025	2010	2/3	5.00±0.20	2.50±0.20	0.55±0.10	0.60±0.20	0.60±0.20	26mg
RC6432	2512	1	6.30±0.20	3.20±0.20	0.55±0.10	0.60±0.20	0.60±0.20	41mg

Parts Numbering System

- The part number system shall be in the following format

RC	2012	J	100	CS
Code Designation	Dimension & Size Code	Tolerance	Resistance Value	Packaging Code
RC: Chip Resistor	0603: 0.6×0.3(mm) - 0201(inch)	G: ±2%	3 or 4 digits coding system (IEC coding system) 3digits (E-24 series) 4digits (E-96 series)	GS: Bulk Packaging
	1005: 1.0×0.5(mm) - 0402(inch)	J: ±5%		CS: Tape Packaging 7"
	1608: 1.6×0.8(mm) - 0603(inch)	K: ±10%		ES: Tape Packaging 10"
	2012: 2.0×1.2(mm) - 0805(inch)	※ Jumper: 'J'		FS: Tape Packaging 13"
	3216: 3.2×1.6(mm) - 1206(inch)		AS: Tape Packaging 13"	
	3225: 3.2×2.5(mm) - 1210(inch)			
5025: 5.0×2.5(mm) - 2010(inch)				
6432: 6.4×3.2(mm) - 2512(inch)				

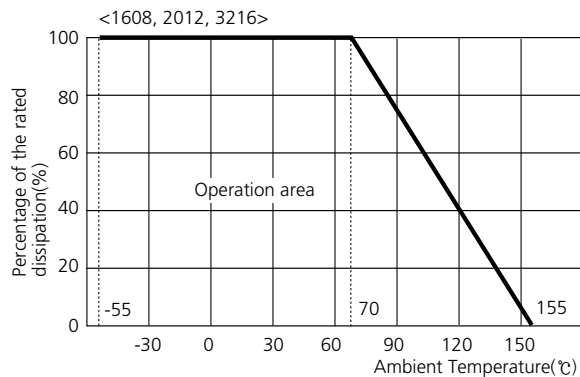
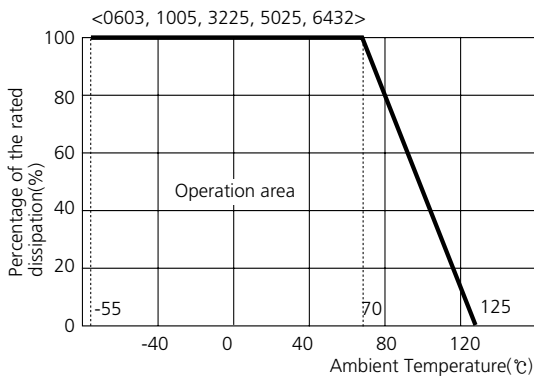
Specification

Type	Power Rating (W)	Working Voltage (MAX)	Overload Voltage (MAX)	TCR (ppm/°C)	Resistance Range (Ω)			Rated Ambient Temperature	Rated Working Temperature
					G(±2%) E-48	J(±5%) E-24	K(±10%) E-12		
RC 0603	1/20	25(V)	50(V)	1 Ω ≤ R < 10 Ω +300/-200ppm	1 Ω ~ 1M Ω	1 Ω ~ 10M Ω	1 Ω ~ 10M Ω	70 °C	-55 °C ~ +125 °C
RC 1005	1/16	50(V)	100(V)						
RC 1608	1/10	150(V)	300(V)	10 Ω ≤ R ≤ 1M Ω ± 100ppm (0603: ± 250ppm)	1 Ω ~ 1M Ω	1 Ω ~ 10M Ω	1 Ω ~ 10M Ω	70 °C	-55 °C ~ +155 °C
RC 2012	1/8								
RC 3216	1/4	200(V)	400(V)	1M Ω < R ≤ 10M Ω ± 300ppm	1 Ω ~ 1M Ω	1 Ω ~ 10M Ω	1 Ω ~ 10M Ω	70 °C	-55 °C ~ +125 °C
RC 3225	1/3								
RC 5025	2/3								
RC 6432	1								

- Rated voltage (V) = $\sqrt{\text{Rated power(W)} \times \text{Normal resistance value (R)}}$
Rated voltage should be lower than (MAX) working voltage.

Power Derating Curve

The rated power is the maximum continuous loading power at 70 °C ambient temperature.
For ambient temperature above 70 °C, the loading power follows the below power derating curve.
(The load current shall be derated according to derating curve in case of the 'Jumper')



Jumper Resistors

Type	Resistance	Current Rating	Rated Ambient Temperature	Rated Working Temperature
RC 0603	50mΩ Max.	0.5(A)	70 °C	-55 °C ~ +125 °C
RC 1005		1.0(A)		
RC 1608				
RC 2012		2.0(A)		
RC 3216				
RC 3225				
RC 5025				
RC 6432				

Marking

3 digits indication (E-24 series)

- Left 2 digits represent significant figures.
- Last 1 digit represent exponential number of 10.
- Example: 103
Left 2 digits: 10
Last 1 digit: 3
 $103 = 10 \times 10^3 \Omega$
 $= 10000 \Omega = 10k \Omega$

103

- Jumper chip is printed as 000
- Resistance below 10 Ω is expressed using "R"
ex) 7R5=7.5 Ω
- 0603, 1005 type: No marking.

Operation Notes

Example of Land Pattern Design

Recommended Soldering Conditions

General Purpose

Precision

Low Ohms

Array

Attenuator

Characteristics Performance

Packaging

Standard Resistance Value