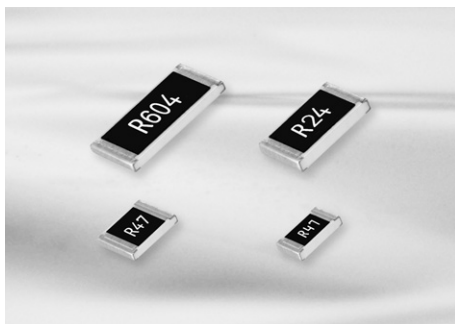


Low Ohms



Feature

- Under 1 ohms, precision resistance.
- Both flow and reflow soldering are applicable.
- Owing to the reduced lead inductance, the high frequency characteristic is excellent.

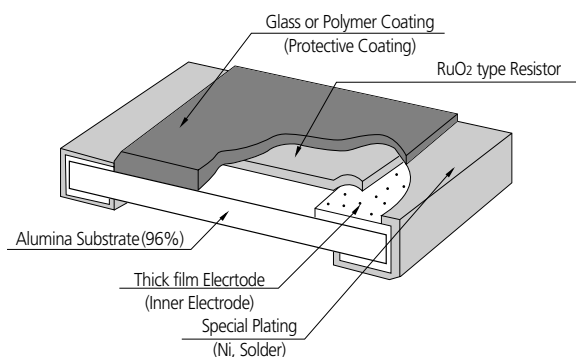
The product of lead-free terminal is RoHS compliant. PhO(lead oxide) is included in the glass of our product which is prescribed on RoHS appendix as an exception.

Application

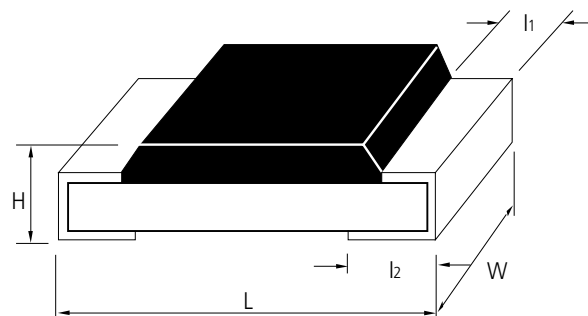
- Current detect.
- Safe circuit through protecting over-current flow.
- Power supplying part.
- Motor controlling, DC power charger, etc.

Structure and Dimensions

• Structure



• Dimensions



(UNIT: mm)

Type	Inch	Power(W)	L	W	H	l ₁	l ₂	Average Weight
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	6432	J	R68	CS
Code Designation	Dimension & Size Code	Tolerance	Resistance Value	Packaging Code
RC: Chip Resistor	1005: 1.0×0.5(mm) - 0402(inch)	F: ±1%	3 or 4 digits coding system (E-24 series)	GS: Bulk Packaging
	1608: 1.6×0.8(mm) - 0603(inch)			CS: Tape Packaging 7"
	2012: 2.0×1.2(mm) - 0805(inch)	G: ±2%		ES: Tape Packaging 10"
	3216: 3.2×1.6(mm) - 1206(inch)			FS: Tape Packaging 13"
	3225: 3.2×2.5(mm) - 1210(inch)			AS: Tape Packaging 13"
	5025: 5.0×2.5(mm) - 2010(inch)			
6432: 6.4×3.2(mm) - 2512(inch)	J: ±5%			

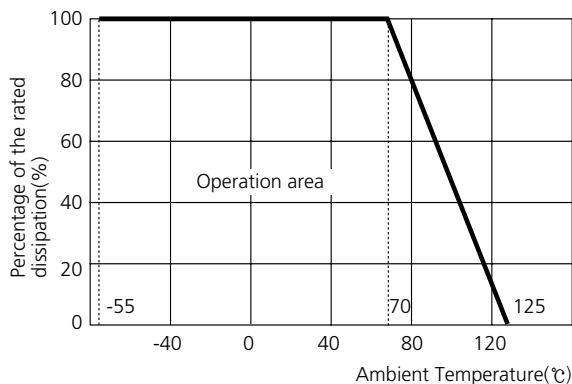
Specification

Type	Power Rating (W)	Working Voltage (V, MAX)	Overload Voltage (V, MAX)	TCR (ppm/°C)	Resistance Range (Ω)			Rated Ambient Temperature	Rated Working Temperature
					F(±1%) E-24	G(±2%) E-24	J(±5%) E-24		
RC1005	1/16	0.25	0.63	$0.1\Omega \leq R < 0.15\Omega$: 400(+300,-200) ppm/°C $0.15\Omega \leq R < 1.0\Omega$: 0~250 ppm/°C	0.1~0.98			70°C	-55°C~+125°C
RC1608	1/10	0.32	0.79						
RC2012	1/8	0.35	0.88						
RC3216	1/4	0.50	1.25						
RC3225	1/3	0.58	1.44						
RC5025	2/3	0.82	2.04						
RC6432	1	1.00	2.50						

- 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.



Marking

E-24 series

3 digits indication

- R means decimal point.
- Other digits represent significant value.
- Example: **R22**
Left 1 digit: R
Last 2 digits: 22
R22 = 0.22 Ω

R22

4 digits indication

- R means decimal point.
- Other digits represent significant value.
- Example: **R075**
Left 1 digit: R
Last 3 digits: 075
R075 = 0.075 Ω

R075

Resistance Value Table

E-24 series

Code	R-value	Code	R-value	Code	R-value
R039	0.039 Ω	R10	0.10 Ω	R33	0.33 Ω
R043	0.043 Ω	R11	0.11 Ω	R36	0.36 Ω
R047	0.047 Ω	R12	0.12 Ω	R39	0.39 Ω
R051	0.051 Ω	R13	0.13 Ω	R43	0.43 Ω
R056	0.056 Ω	R15	0.15 Ω	R47	0.47 Ω
R062	0.062 Ω	R16	0.16 Ω	R51	0.51 Ω
R068	0.068 Ω	R18	0.18 Ω	R56	0.56 Ω
R075	0.075 Ω	R20	0.20 Ω	R62	0.62 Ω
R082	0.082 Ω	R22	0.22 Ω	R68	0.68 Ω
R091	0.091 Ω	R24	0.24 Ω	R75	0.75 Ω
		R27	0.27 Ω	R82	0.82 Ω
		R30	0.30 Ω	R91	0.91 Ω