ROYALOHM

Thick Film Chip Resistors

Performance Specification

Temperature Coefficient	0Ω1 ~ 0Ω99	±800PPM/°C	
	1Ω ~ 10Ω	±400PPM/°C	
	11Ω ~ 100Ω	±200PPM/°C	
	>100Ω	±100PPM/°C	(0201: >100Ω ≤ ±200PPM/°C)
Short Time Overload	±5%: ± (2.0% + 0.1Ω)Max		
	±1%: ± (1.0% + 0.1Ω)Max		
Insulation Resistance	Min. 1,000 Mega Ohm		
Dieiectric Withstanding Voltage	No evidence of flashover, mechanical damage, arcing or insulation breakdown.		
Terminal Bending	±(1.0% + 0.05Ω)Max		
Soldering Heat	±(1.0% + 0.05Ω)Max		
Solderability	Min. 95% coverage.		
Temperature Cycling	±5% : ±(1.0% + 0.05Ω)Max		
	±1% : ±(0.5% + 0.05Ω)Max		
Humidity (Steady State)	±5% : ±(3.0% + 0.1Ω)Max		
	±1% : ±(0.5% + 0.1 Ω)Max		
Load Life in Humidity	±5% : ±(3.0% + 0.1Ω)Max		
	±1% : ±(1.0% + 0.1 Ω)Max		
Load Life	±5% : ±(3.0% + 0.1Ω)Max		
	±1% : ±(1.0% + 0.1Ω)Max		

Ordering Procedure: Ex.: 1206, 1/4W-S, +/-5%, 10Ω T/R-5000

1 2 0 6 S 4 J 0 1 0 0 T 5 E

Resistor Size:
0201, 0402, 0603, 0805, 1206, 1210, 1812, 2010, 2512
Wide Terminals:
0508, 0612, 1020, 1218, 1225

Wattage:
Normal size: WH=1/32W, WM=1/20W, WG=1/16W, WA=1/10W, W8=1/8W, W4=1/4W, W2=1/2W, 1W=1W
Small size: SA=1/10W-S, S8=1/8W-S, S4=1/4W-S, S3=1/3W-S, 07=3/4W-S, U2=1/2W-SS
Applicable for Wide Terminal only: WJ=1.5W, 2W. 3W

Resistance Value:
- E-24 series:
  1st digit is "0"
  2nd & 3rd digits are significant figures of the resistance
  4th indicates the number of zeros
- E-96 series:
  1st to 3rd digits are significant figures of the resistance
  4th digit indicates the number of zeros.
  "J" ~0.1, "K" ~ 0.01, "L" ~ 0.001
  Ex. 012J ~1Ω2, 226K ~ 2Ω26
- Jumper : use "0" for 1st to 4th digits

Tolerance:
D = ±0.5%
F = ±1%
G = ±2%
J = ±5%

Packing Type:
T = Tape/Reel

Packing Qty:
1 = 1,000 pcs. 2 = 2,000 pcs.
4 = 4,000 pcs. 5 = 5,000 pcs.
A = 500 pcs. C = 10,000 pcs.
D = 20,000 pcs. E = 15,000 pcs.
F = 40,000 pcs. G = 60,000 pcs.

Special Feature:
E = Lead (Pb) Free Plating Type/ RoHS compliant

Note :
1.) Special resistance value, tolerance, T.C.R. requirement is available on a case-to-case basis.
2.) Standard reel size = 7"
3.) 4", 10", & 13" reels are available upon request

RoHS Compliant

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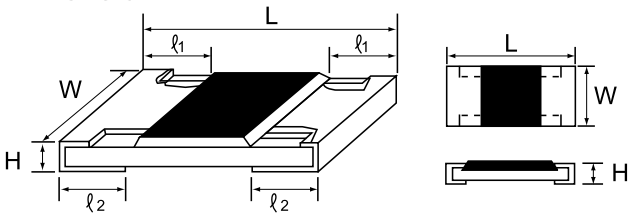
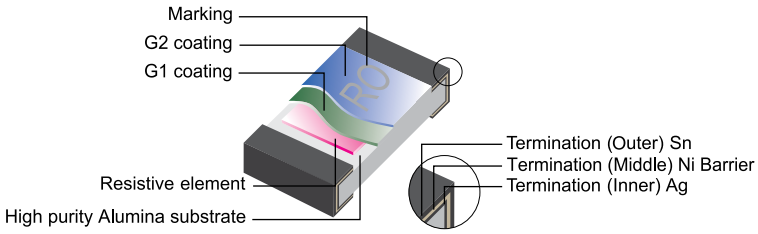
Features

- Small size and light weight
- Suitable for both wave and reflow soldering
- Reduction of assembly costs

Dimension



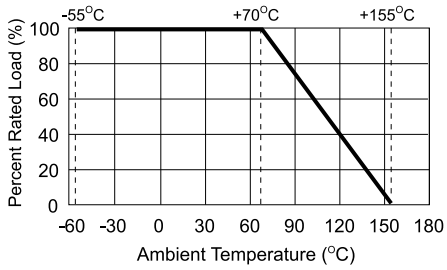


Type	Power Rating at 70°C	Max Working Voltage	Max Overload Voltage	Dielectric Withstanding Voltage	Tolerance %	Resistance Range	Dimension (mm) L	W	H	ℓ1	ℓ2
0201 (0603)	1/20W	0.5A	1A	-	Jumper	<50mΩ	0.60±0.03	0.30±0.03	0.23±0.03	0.10±0.05	0.15±0.05
		25V	50V	-	±1% ±2% ±5%	10Ω ~ 1MΩ 10Ω ~ 1MΩ 1Ω ~ 1MΩ					
0402 (1005)	1/16W	1A	2A		Jumper	<50mΩ	1.00±0.10	0.50±0.05	0.35±0.05	0.20±0.10	0.25±0.10
		50V	100V	100V	±1% ±2% ±5%	10Ω ~ 1MΩ 1Ω ~ 10MΩ 1Ω ~ 10MΩ					
0603 (1608)	1/10W-S 1/16W	1A	2A		Jumper	<50mΩ	1.60±0.10	$0.80^{+0.15}_{-0.10}$	0.45±0.10	0.30±0.20	0.30±0.20
		75V	150V	300V	±1% ±2% ±5%	10Ω ~ 1MΩ 1Ω ~ 10MΩ 1Ω ~ 10MΩ					
0805 (2012)	1/8W-S 1/10W	2A	5A		Jumper	<50mΩ	2.00±0.15	$1.25^{+0.15}_{-0.10}$	0.55±0.10	0.40±0.20	0.40±0.20
		150V	300V	500V	±1% ±2% ±5%	10Ω ~ 1MΩ 1Ω ~ 10MΩ 1Ω ~ 10MΩ					
1206 (3216)	1/4W-S 1/8W	2A	10A		Jumper	<50mΩ	3.10±0.15	$1.55^{+0.15}_{-0.10}$	0.55±0.10	0.45±0.20	0.45±0.20
		200V	400V	500V	±1% ±2% ±5%	10Ω ~ 1MΩ 1Ω ~ 10MΩ 1Ω ~ 10MΩ					
1210 (3225)	1/2W-SS 1/3W-S 1/4W	2A	10A		Jumper	<50mΩ	3.10±0.10	2.60±0.15	0.55±0.10	0.50±0.25	0.50±0.20
		200V	500V	500V	±1% ±2% ±5%	10Ω ~ 1MΩ 1Ω ~ 10MΩ 1Ω ~ 10MΩ					
1812	1/2W 3/4W-S	2A	10A		Jumper	<50mΩ	4.50±0.20	3.20±0.20	0.55±0.20	0.50±0.20	0.05±0.20
		200V	500V	500V	±1% ±5%	1Ω ~ 10MΩ					
2010 (5025)	3/4W-S 1/2W	2A	10A		Jumper	<50mΩ	5.00±0.10	2.50±0.15	0.55±0.10	0.60±0.25	0.50±0.20
		200V	500V	500V	±1% ±2% ±5%	10Ω ~ 1MΩ 1Ω ~ 10MΩ 1Ω ~ 10MΩ					
2512 (6432)	1W	2.5A	10A		Jumper	<50mΩ	6.35±0.10	3.20±0.15	0.55±0.10	0.60±0.25	0.50±0.20
		200V	500V	500V	±1% ±2% ±5%	10Ω ~ 1MΩ 1Ω ~ 10MΩ 1Ω ~ 10MΩ					

Note:

1.) Metric information inside parenthesis.
2.) Standard Operating Temp (°C): -55 ~ +155
3.) Standard: E-96 series: 0.5%, 1%
E-24 series: 2%, 5%
4.) Low resistance range (0.1Ω ~ 0.99Ω) is also available for 0402, 0603, 0805, 1206, 1210, 2010 and 2512

Derating Curve



RoHS Compliant