# Thick Film Chip Resistors

### Performance Specification

Temperature Coefficient  $0\Omega1 \sim 0\Omega99$ ±800PPM/°C  $1\Omega \sim 10\Omega$ ±400PPM/°C

 $10.1\Omega \sim 100\Omega$ ±200PPM/°C

±100PPM/°C  $(0201: >100\Omega \le \pm 200PPM/^{\circ}C)$ >1000

Short Time Overload  $\pm 5\%$ :  $\pm (2.0\% + 0.1\Omega)$  Max

 $\pm 1\%$ :  $\pm (1.0\% + 0.1Ω)$ Max

Insulation Resistance Min. 1,000 Mega Ohm

Dieiectric Withstanding Voltage No evidence of flashover, mechanical damage, arcing or insulation

breakdown.

**Terminal Bending**  $\pm$ (1.0% + 0.05Ω)Max  $\pm$ (1.0% + 0.05Ω)Max Soldering Heat Solderability Min. 95% coverage.

Temperature Cycling  $\pm 5\%$ :  $\pm (1.0\% + 0.05 Ω)$ Max

 $\pm 1\%$ :  $\pm (0.5\% + 0.05Ω)$ Max

 $\pm 5\%$ :  $\pm (3.0\% + 0.1\Omega)$ Max **Humidity (Steady State)** 

 $\pm 1\%$ :  $\pm (0.5\% + 0.1 Ω)$ Max

Load Life in Humidity  $\pm 5\%$ :  $\pm (3.0\% + 0.1\Omega)$ Max

 $\pm 1\%$ :  $\pm (1.0\% + 0.1\Omega)$ Max

Load Life  $\pm 5\%$ :  $\pm (3.0\% + 0.1\Omega)$ Max

 $\pm 1\%$ :  $\pm (1.0\% + 0.1\Omega)$ Max

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

1 2 6 S 4 J 0 0 Т 5 Ε

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

SA=1/10W-S, S8=1/8W-S, S4=1/4W-S, Small size:

S3=1/3W-S, 07=3/4W-S, U2=1/2W-SS

Applicable for Wide Terminal only: WJ=1.5W, 2W. 3W

Tolerance:

 $D = \pm 0.5\%$  $F = \pm 1\%$ 

 $G = \pm 2\%$ 

 $J = \pm 5\%$ 

#### Resistance Value:

E-24 series:

1st digit is "0"

2<sup>nd</sup> & 3<sup>rd</sup> digits are significant figures of the resistance

4th indicates the number of zeros

E-96 series:

1<sup>st</sup> to 3<sup>rd</sup> digits are significant figures of the resistance 4th digit indicates the number of

"J" ~0.1, "K" ~ 0.01, "L" ~ 0.001

Ex. 012J ~  $1\Omega$ 2, 226K ~  $2\Omega$ 26

Jumper: use "0" for 1st to 4th

digits

Packing Type:

T = Tape/Reel

Packing Qty:

2 = 2.000 pcs.1 = 1.000 pcs.4 = 4,000 pcs.5 = 5,000 pcs.C = 10,000 pcs.A = 500 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

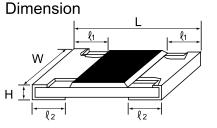


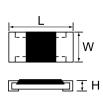
# Thick Film Chip Resistors

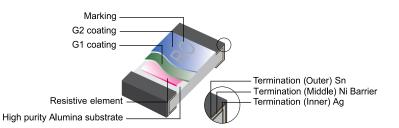
# Features

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









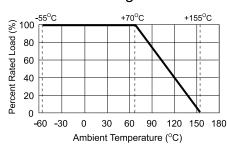
Туре	Power Rating at 70°C	Max	Max	Dielectric	Tolerance %	Resistance Range	Dimension (mm)				
		Working Voltage/Current	Overload Voltage/Current	vvitnstanding			L	W	Н	<b>ℓ</b> 1	ℓ2
0201 (0603)	1/20W	0.5A	1A	-	Jumper	<50mΩ	0.60±0.03	0.30±0.03	0.23±0.03	0.10±0.05	0.15±0.05
		25V	50V	-	±1% ±2% ±5%	$1\Omega$ ~ $10M\Omega$ $1\Omega$ ~ $10M\Omega$ $1\Omega$ ~ $10M\Omega$					
0402 (1005)	1/16W	1A	2A		Jumper	<50m $\Omega$	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%	$1\Omega \sim 10 M\Omega$ $1\Omega \sim 10 M\Omega$ $1\Omega \sim 10 M\Omega$					
0603 (1608)	1/10W-S 1/16W	1A	2A		Jumper	<50mΩ	1.60±0.10	0.80 <sup>+0.15</sup> -0.10	0.45±0.10	0.30±0.20	0.30±0.20
		75V	150V	300V	±1% ±2% ±5%	$1\Omega$ ~ $10M\Omega$ $1\Omega$ ~ $10M\Omega$ $1\Omega$ ~ $10M\Omega$					
0805 (2012)	1/8W-S 1/10W	2A	5A		Jumper	<50m $\Omega$	2.00±0.15	1.25 <sup>+0.15</sup> -0.10	0.55±0.10	0.40±0.20	0.40±0.20
		150V	300V	500V	±1% ±2% ±5%	$1\Omega$ ~ $10M\Omega$ $1\Omega$ ~ $10M\Omega$ $1\Omega$ ~ $10M\Omega$					
1206 (3216)	1/4W-S 1/8W	2A	10A		Jumper	<50mΩ	3.10±0.15	1.55 <sup>+0.15</sup> -0.10	0.55±0.10	0.45±0.20	0.45±0.20
		200V	400V	500V	±1% ±2% ±5%	$1\Omega$ ~ $10M\Omega$ $1\Omega$ ~ $10M\Omega$ $1\Omega$ ~ $10M\Omega$					
1210 (3225)	1/2W-SS 1/3W-S 1/4W	2A	10A		Jumper	<50m $\Omega$	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%	$1\Omega$ ~ $10M\Omega$ $1\Omega$ ~ $10M\Omega$ $1\Omega$ ~ $10M\Omega$					
1812	1/2W 3/4W-S	2A	10A		Jumper	<50m $\Omega$	4.50±0.20	3.20±0.20	0.55±0.20	0.50±0.20	0.50±0.20
		200V	500V	500V	±1% ±5%	$1\Omega \sim 10M\Omega$ $1\Omega \sim 10M\Omega$					
2010 (5025)	3/4W-S 1/2W	2A	10A		Jumper	<50m $\Omega$	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%	$1\Omega \sim 10M\Omega$ $1\Omega \sim 10M\Omega$ $1\Omega \sim 10M\Omega$					
2512 (6432)	1W	2A	10A		Jumper	<50m $\Omega$	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%	$1\Omega \sim 10 M\Omega$ $1\Omega \sim 10 M\Omega$ $1\Omega \sim 10 M\Omega$					

- 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 (0.1 $\Omega$  ~ 0.99 $\Omega$ ) is also

available for 0402, 0603, 0805, 1206, 1210, 2010 and 2512

# **Derating Curve**





# **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Thick Film Resistors - SMD category:

Click to view products by Royal Ohm manufacturer:

Other Similar products are found below:

CRG1206F1K58 CRL0603-FW-R700ELF M55342K06B6E19RWL RC1005F1072CS RC1005F471CS RC1005F4751CS

RCP0603W100RGED RCWP72251K47FKWB RGC1/16C3301FT RLR05C7501GPB14 RLR07C5111FSBSL ERJ-1GMF1R00C ERJ
1GMF1R20C ERJ-1GMF2R55C ERJ-1GMF8R66C 25121WF1003T4E 25121WF100JT4E 25121WF220JT4E 25121WF470KT4E

25.501.3653.0 290-1.0M-RC 292-1.0M-RC 292-4.7K-RC 304-1.0M-RC SR06X1001FTL 25121WF100KT4E 25121WF4700T4E 302
1.0M-RC CPG1206F10KC CRCW02011R00FXED CRCW060315K0FKEE CRCW06031K30FKEC CRCW060320K5FKEE

CRG0201F10K RCG0402150RFKED RCG04023K92FKED RCP2512B100RGWB RCWP110010R0FKS3 RCWP11002K00FKS3

RCWP110051R1FKS3 RCWP12061K00FKS2 3520510RJT 352075KJT M55342K11B9E53RUL RMC16-102JT RMC1JPTE TR0603MR
075K1L MM02041001FRC MMB0207-50-10R0FTR-L 5-2176094-4