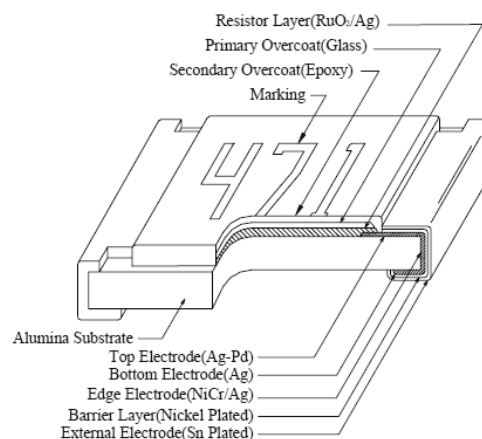


Thick Film Chip Resistor – General Purpose

Features

- Small and light weight
- Excellent heat resistance and moisture resistance
- Suitable size and packaging for surface mount assembly
- RoHS Compliant



Applications

- For general purpose applications
- For laptop and notebook computer, memory module, digital camera and telecommunication equipment

Absolute Maximum Ratings & Characteristics

Product Number	mm	Tolerance	Power Rating @70°C	MAX Working Voltage	MAX Overload Voltage	TCR ppm/°C	Resistance Range	Rated Working Temperature
RC0805	2012	J: ±5% F: ±1%	1/8W	150V	300V	±200	1Ω ~ 9.76Ω	-55°C~+155°C
						±100	10Ω ~ 1MΩ	
						±200	1.02MΩ ~ 10MΩ	

*Jumper

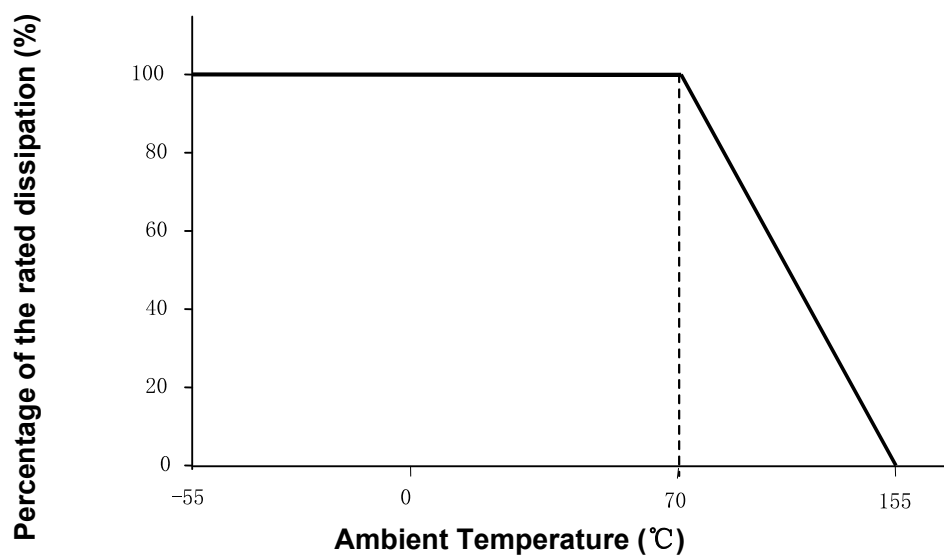
Product Number	Jumper Rated Current	Resistance	Rated Working Temperature
RC0805	2A	50mΩ (max.)	-55°C~+155°C

Thick Film Chip Resistor - General Purpose

RC0805

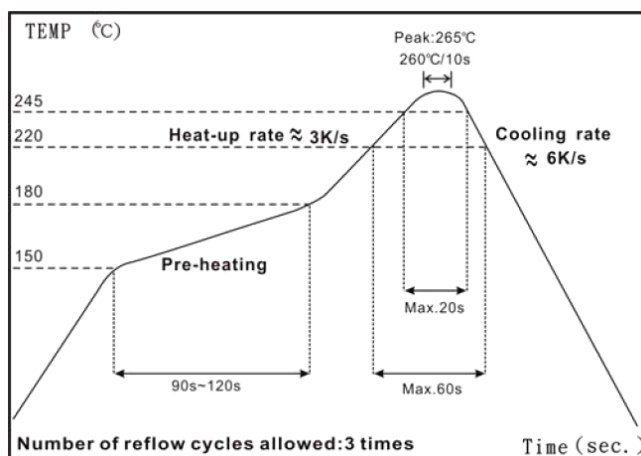
Power Derating Curve

For resistors operate in the ambient temperature over 70°C, loading power ratio will de-rate in accordance with following curve.

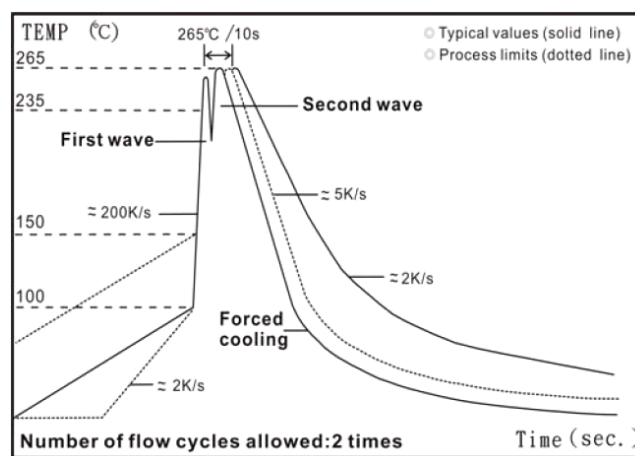


Max. Dissipation of rated power as a function of the ambient temperature

Soldering Condition



IR Reflow soldering

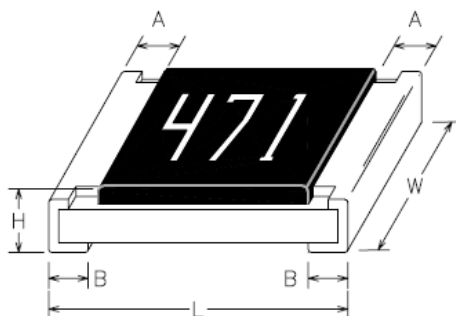


Wave soldering (flow soldering)

Thick Film Chip Resistor - General Purpose

RC0805

Dimensions (in mm)



Product Number	mm	L	W	H	A	B	Average Weight
RC0805	2012	2.00 ± 0.10	1.25 ± 0.10	0.50 ± 0.10	0.35 ± 0.20	0.40 ± 0.20	4.54 mg

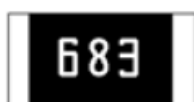
Marking

(1) $\pm 5\%$ Tolerance (J): 3 digits, the first two digits are significant figures; the third digit is number of zeros to follow. Letter "R" is as decimal point; Letter "0" for jumper.

(2) $\pm 1\%$ Tolerance (F): 4 digits, the first three digits are significant figures; the fourth digit is number of zeros. Letter "R" is as decimal point; Letter "0" for jumper.

Examples:

3 digits marking ($\pm 5\%$)



$$\begin{aligned} 68\textcolor{red}{3} &= 68 \times 10^3 \Omega \\ &= 68000 \Omega = 68\text{K}\Omega \\ \textcolor{red}{7}\textcolor{red}{R}5 &= 7.5 \Omega \end{aligned}$$



Jumper

4 digits marking ($\pm 1\%$)



$$\begin{aligned} 6812 &= 681 \times 10^2 \Omega \\ &= 68100 \Omega = 68.1\text{K}\Omega \end{aligned}$$

Thick Film Chip Resistor - General Purpose

RC0805

Test and Requirements

Test Item	Test Method	Test Condition	Requirement		
			±1%	±5%	Jumper
Temperature Coefficient of Resistance(T.C.R.)	JIS C 5201 4.8 IEC 60115-1 4.8	-55°C~+155,20°C is the reference temperature	Within the specification		
Short Time Overload	JIS C 5201 4.13 IEC 60115-1 4.13	2.5 times RCWV or max. overload voltage for 5 seconds	±(1.0%+0.05Ω)	±(2.0%+0.05Ω)	<50mΩ
Insulation Resistance	JIS C 5201 4.6 IEC 60115-1 4.6	Max. overload voltage for 1 minute	≥10G		
Voltage Proof	JIS C 5201 4.7 IEC 60115-1 4.7	1.42 times RCWV (RMS) for 1 minute	no breakdown or flashover		
Substrate Bending Test	JIS C 5201 4.33 IEC 60115-1 4.33	Bending once with 5 seconds for 3 mm	±(1.0%+0.05Ω)	±(1.0%+0.05Ω)	<50mΩ
Resistance to soldering heat	JIS C 5201 4.18 IEC 60115 4.18	260±5°C for 10 seconds	±(0.5%+0.05Ω)	±(1.0%+0.05Ω)	<50mΩ
Leaching	JIS C 5201 4.18 IEC 60115 4.18	260±5°C for 60 seconds	no leaching		
Solderability	JIS C 5201 4.17 IEC 60115-1 4.17	245±5°C for 3 seconds.	>95% coverage		
Endurance at upper category temperature	JIS C 5201 4.23 IEC 60115-1 2.23.2	at +155°C for 1000 hrs	±(1.0%+0.05Ω)	±(1.5%+0.10Ω)	<50mΩ
Rapid change of temperature	JIS C 5201 4.19 IEC 60115-1 4.19	-55°C to +155°C, 5 cycles	±(0.5%+0.05Ω)	±(1.0%+0.05Ω)	<50mΩ
Damp heat with load	JIS 5201 4.24	40±2°C, 90~95% R.H. or max. working voltage for 1000 hrs with 1.5hrs "ON" and 0.5 hrs "OFF"	±(2.0%+0.10Ω)	±(3.0%+0.10Ω)	<100mΩ
Endurance	JIS C 5201 4.25 IEC 60115-1 4.25.1	70±2°C, RCWV or Max. working voltage for 1000 hrs with 1.5 hrs "ON" and 0.5 hrs "OFF"	±(2.0%+0.10Ω)	±(3.0%+0.10Ω)	<100mΩ

Note: RCWV: Rated Continuous Working Voltage.

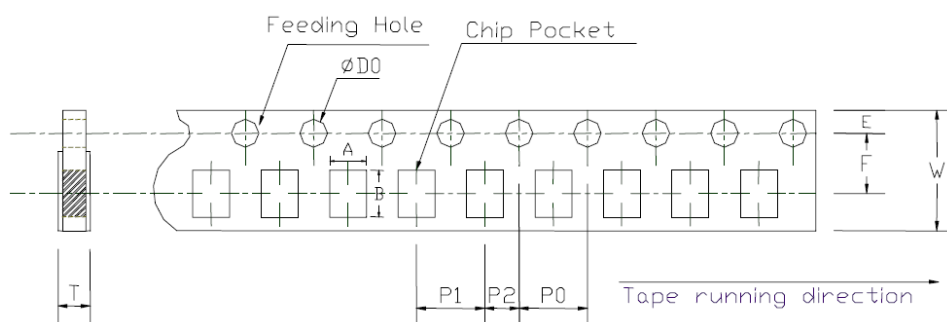
$$RCWV = \sqrt{\text{Rated power (W)} \times \text{Resistance value (R)}}$$

Thick Film Chip Resistor - General Purpose

RC0805

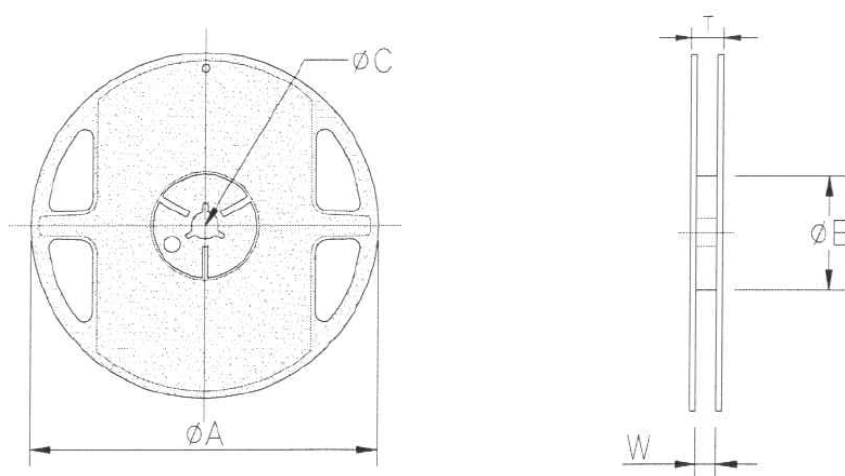
Packing Information:

Carrier Tape Dimensions (in mm)



Type	A	B	W	E	F	P0	P1	P2	$\psi D0$	T
RC0805	1.60 $\pm$ 0.1	2.40 $\pm$ 0.2	8.0 $\pm$ 0.2	1.75 $\pm$ 0.1	3.5 $\pm$ 0.05	4.0 $\pm$ 0.1	4.0 $\pm$ 0.05	2.0 $\pm$ 0.05	1.5+0.1/-0	0.85 $\pm$ 0.1

Reel Dimensions (in mm)



Reel Diameter	PCS per Reel	A	B	C	W	T
7"	5,000	180+0/-3	60+1/-0	13.0 $\pm$ 0.2	9.0 $\pm$ 0.5	11.4 $\pm$ 1
13"	20,000	330 $\pm$ 1	100 $\pm$ 1	13.0 $\pm$ 0.2	9.5 $\pm$ 0.5	13.5 $\pm$ 1

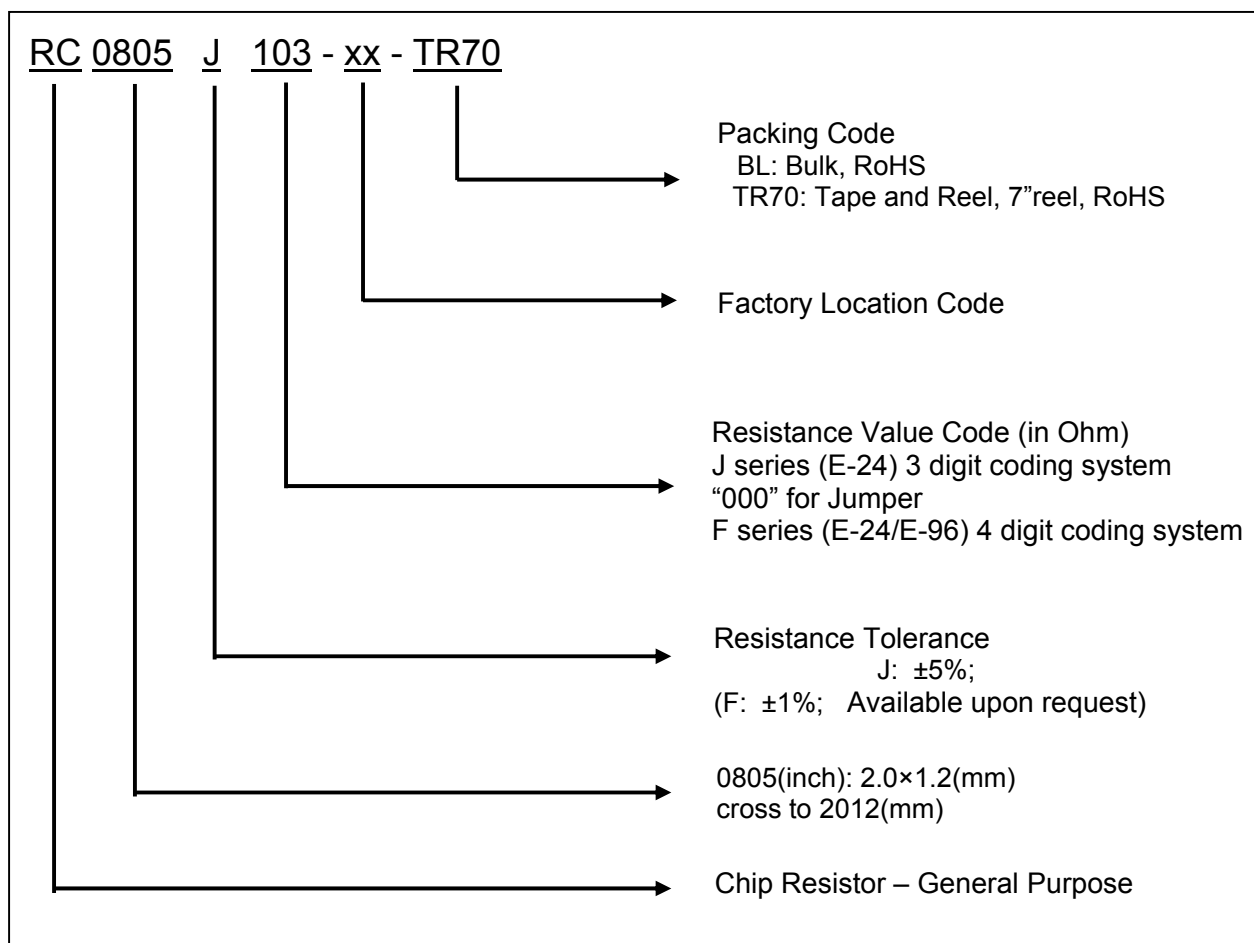
Carton Information

PCS per Carton	Carton Size
300,000	400X400X200 (in mm)

Thick Film Chip Resistor - General Purpose

RC0805

How to Order



Thick Film Chip Resistor - General Purpose

RC0805

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