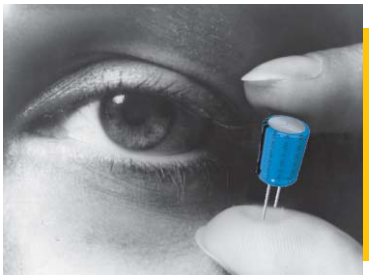


Chip Resistor Array
Type RCA

Δ Features

- Suitable for lead free soldering
- compatible with flow and reflow soldering

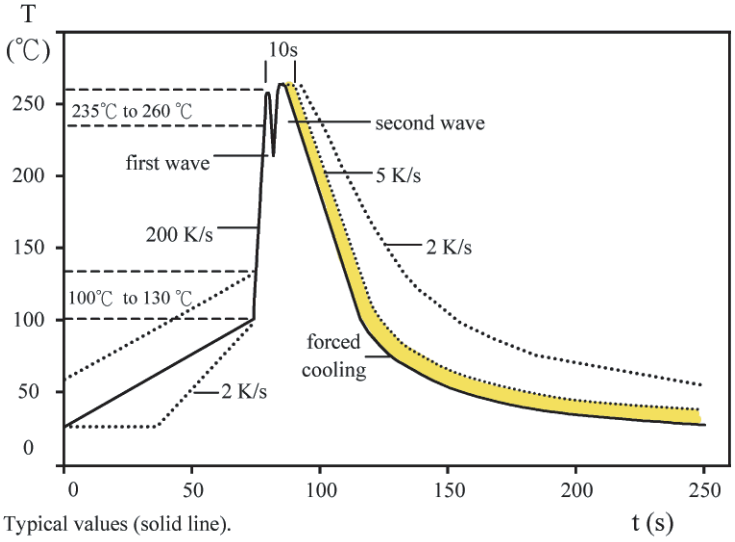
Δ Applications

- Automotive, Medical, and Telecom Industries

Δ Part Number

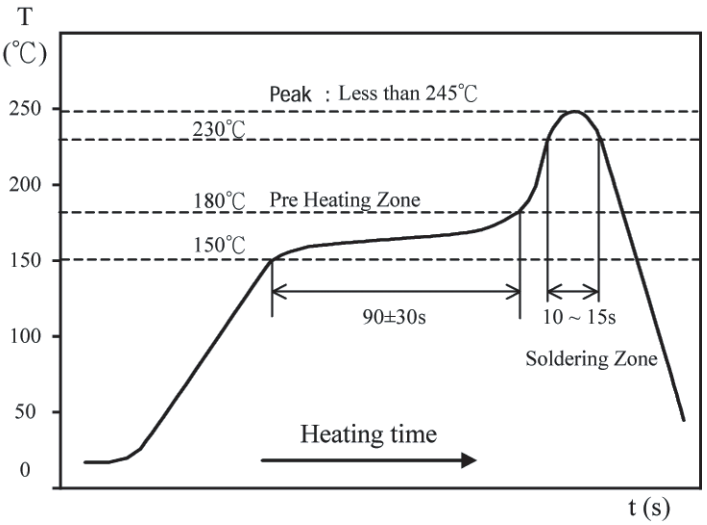
Type	Size	Isolated	Circuit Configuration	Packaging	Tolerance	Resistor Value
RCA	1206	B	8	T	J	103
	Chip Size	Isolated	Circuit 8P/4R	Taping	Example	Example
					J=5%	102=1KΩ
					F=1%	103=10KΩ

Δ Soldering Temperature Curve



Typical values (solid line).
Process limits (dotted line).

WAVE soldering.



IR Reflow Soldering

Δ Rating

·Lead Free Chip Resistor Array

Type	Size	Power Rating at 70°C	Max. RCWV	Max. Overload Voltage	Resistance Tolerance (%)	Temperature Coefficient (TCR: ppm/°C)	Resistance Range (Ω) Min.	Resistance Range (Ω) Max.	Standard Resistance Values
RCA 1206	8P4R	1/16W (Element)	50V	100V	±5%(J) ±1%(F)	±200	0Ω,10Ω	1MΩ	E-24

Jumper: 8P4R size maximum resistance Rmax = 50mΩ and rated current I_R = 1A

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LIBERTY Components

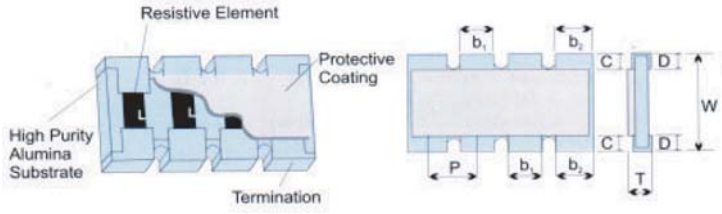
Chip Resistor Array

Type | RCA

Δ Product Category

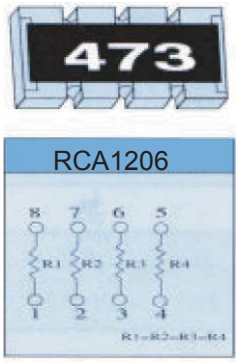
- Lead Free Chip Resistor Array (RCA1206) Convex

Δ Configuration



Inner Termination Layer: Ag, Pd/Ag
MIddle Termination Layer: Nickel
Outer Termination Layer: Solder

Δ Circuit

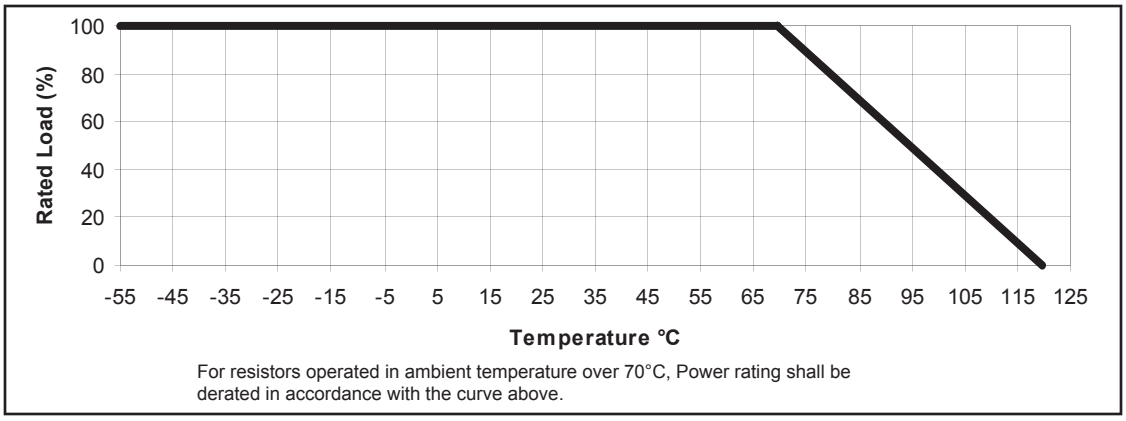


Δ Dimensions

Size	L	W	T	C	D	P	b1	b2
8P4R	3.20±0.20	1.60±0.10	0.50±0.10	0.30±0.20	0.30±0.20	0.80±0.05	0.45±0.10	0.70±0.20

(unit: mm)

Δ Power Derating Curve



For resistors operated in ambient temperature over 70°C, Power rating shall be derated in accordance with the curve above.

Surface Mount Resistors

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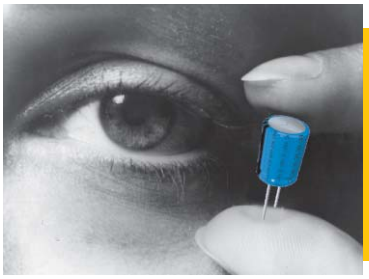

Δ Product Category

- Specification and Test Method

ITEM	SPECIFICATION	TEST METHOD
DC Resistance	J: ±5%, F:±1% Zero Ohm Jumper < 50mΩ	IEC 115-1 4.5 / JIS C 5202 5.1 Measure the resistance value.
Short Time Overload	J: ΔR ≤ ± (2% + 0.1Ω) F: ΔR ≤ ± (1% + 0.05Ω)	IEC 115-1 4.13 / JIS C 5202 5.5 2.5xRated voltage or Max. Overload Voltage for 5 sec. measure resistance after 30 minutes.
Solderability	Over 95% of termination must be covered with solder	IEC 115-1 4.17 / JIS C 5202 6.5 After immersing flux, dip in the 245±2°C molten solder bath for 3±0.5 sec.
Resistance to Solder Heat	J: ΔR ≤ ± (1% + 0.1Ω) F: ΔR ≤ ± (0.5% + 0.05Ω) No mechanical damage	IEC 115-1 4.18 / JIS C 5202 6.4 with 260±5°C for 10±1sec.
Temperature Coefficient of Resistance (TCR)	±200ppm/°C	IEC 115-1 4.8.4.2 / JIS C 5202 5.2 Test Temperature: 25°C(T1) → -55°C(T2) 25°C(T1) → 125°C(T2) TCR (ppm/°C) = (R2-R1)/R1(T2-T1) x10^6 R1: Resistance at reference temperature (T1) R2: Resistance at test temperature (T2)
Load Life Humidity	J: ΔR ≤ ± (3% + 0.1Ω) F: ΔR ≤ ± (1% + 0.05Ω)	IEC 115-1 4.24.2 / JIS C 5202 7.9 Maintain the temperature of the resistor at 40±2°C and 90~95% R.H. with the rated voltage applied. Cycle ON for 1.5 hours. After 1~4 hour, measure the resistance value.
Load Life	J: ΔR ≤ ± (3% + 0.1Ω) F: ΔR ≤ ± (1% + 0.05Ω)	IEC 115-1 4.25.1 / JIS C 5202 7.10 Permanent resistance change after 1000+48/-0 hours (1.5 hours ON, 0.5 hour OFF) at RCWV or MAX. Keep the resistor at 70±2°C ambient
Intermittent Overload	ΔR ≤ ± (3% + 0.1Ω) No mechanical damage	JIS C 5202 5.8 4.0xRated voltage (Max. Overload Voltage) 1 sec ON, 25 sec OFF, test 10,000 cycles
Temperature Cycle	J: ΔR ≤ ± (1% + 0.1Ω) F: ΔR ≤ ± (0.5% + 0.05Ω) No mechanical damage	IEC 115-1 4.19 / JIS C 5202 7.4 Repeat 5 cycles as follows -55°C (30min) +25°C(2~3min) +125°C (30min) +25°C(2~3min)
Insulation Resistance	Between termination and coating must be over 1000MΩ	IEC 115-1 4.6.1.1 / JIS C 5202 5.6 Test voltage: 100±15V
Bending Strength	J: ΔR ≤ ± (1% + 0.1Ω) F: ΔR ≤ ± (0.5% + 0.05Ω) No mechanical damage	IEC 115-1 4.33 Resistance change after bended on the 90mm PCB. Bend: 3min

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