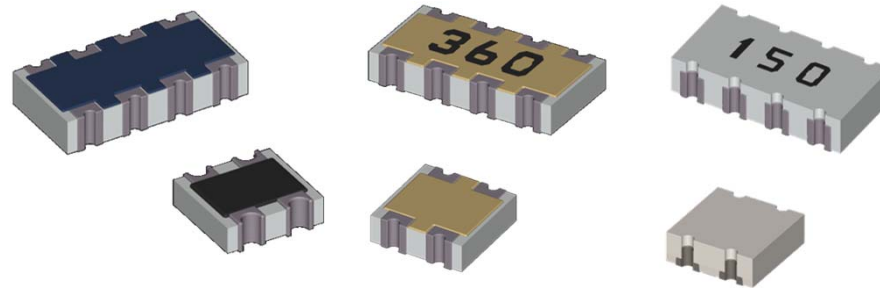


Concave Type Array Resistors (RN, RM, RK series)

■ Features

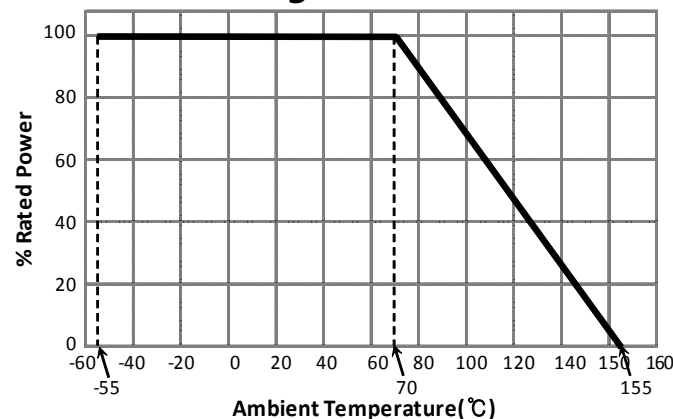
- Reducing SMD surface area (40% reduced)
- Reducing SMD cost (75% reduced)
- Applicable both flow and reflow soldering
- RoHS Compliant.



■ Part Number System

RK		10		4P		J		150		CS	
Type		Size		# of Resistors		Tolerance		Resistance Value		Packing Type	
RN	Normal Concave	10	1005	2P	2 pieces	F	±1%	3-digit coding System (E-24 series) * Jumper : '000'		CS	7” reel
RM	Inverted Concave	16	1608	4P	4 pieces	J	±5%			ES	10” reel
RK	Short-Free & Inverted Concave									AS	13” reel
						* Jumper : 'J'					

■ Power Derating Curve



■ Jumper Ratings

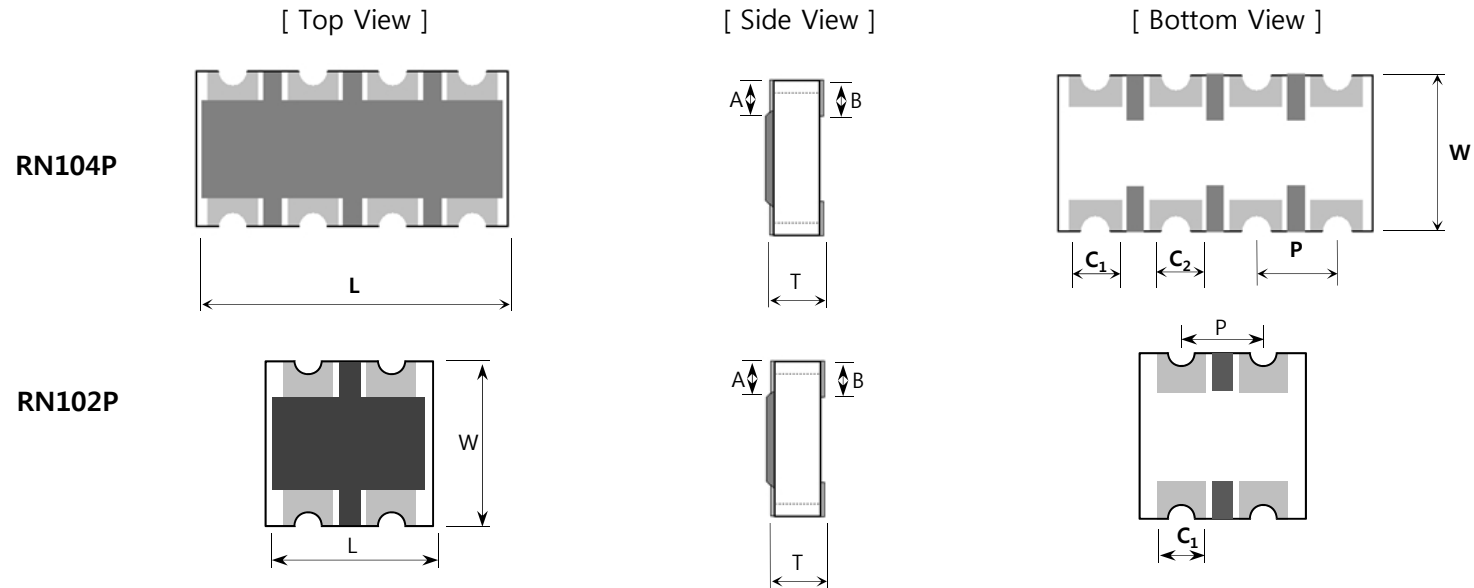
TYPE	Rated Current (A)	Max Overload Current (A)
102P, 104P	1	2
164P	1	2

■ Rated Voltage

$$V = \sqrt{P \times R}$$

V : Rated Voltage (V)
P : Rated Power (W)
R : Resistance Value (Ω)

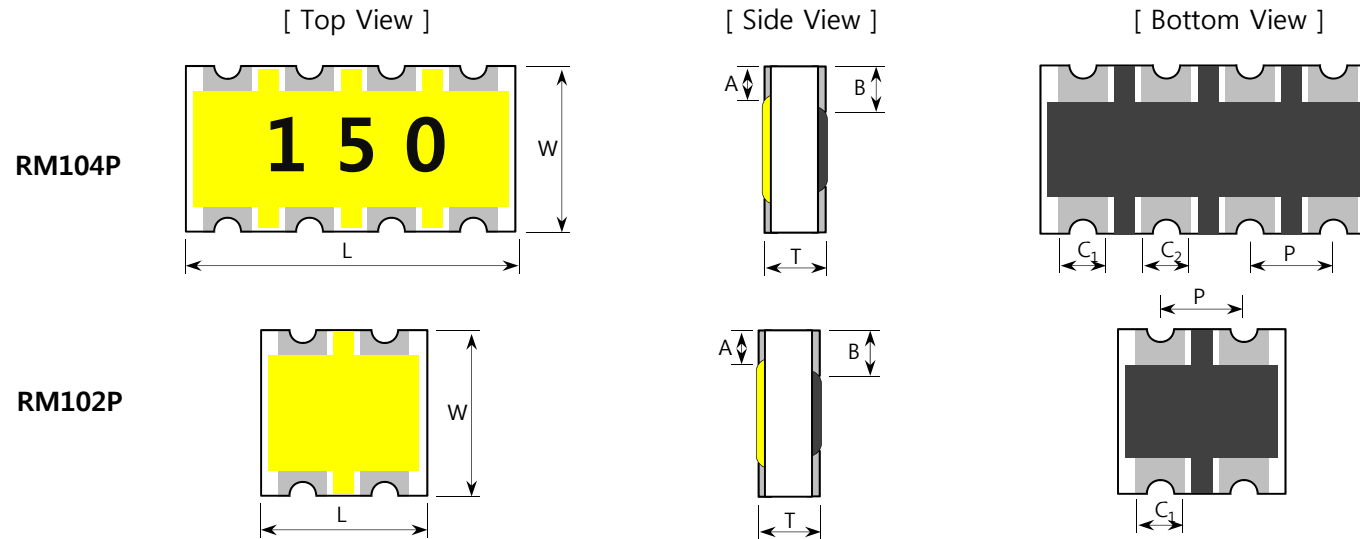
■ Structure and Dimensions



[Unit : mm]

Size(mil)	L	W	T	A	B	C1	C2	P	Unit Weight
RN102P(0404)	1.00 ± 0.10	1.00 ± 0.10	0.35 ± 0.10	0.15 ± 0.10	0.25 ± 0.15	0.33 ± 0.10	-	0.50 ± 0.10	1.2mg
RN104P(0804)	2.00 ± 0.10	1.00 ± 0.10	0.40 ± 0.10	0.15 ± 0.10	0.25 ± 0.15	0.30 ± 0.10	0.30 ± 0.10	0.50 ± 0.10	2.8mg

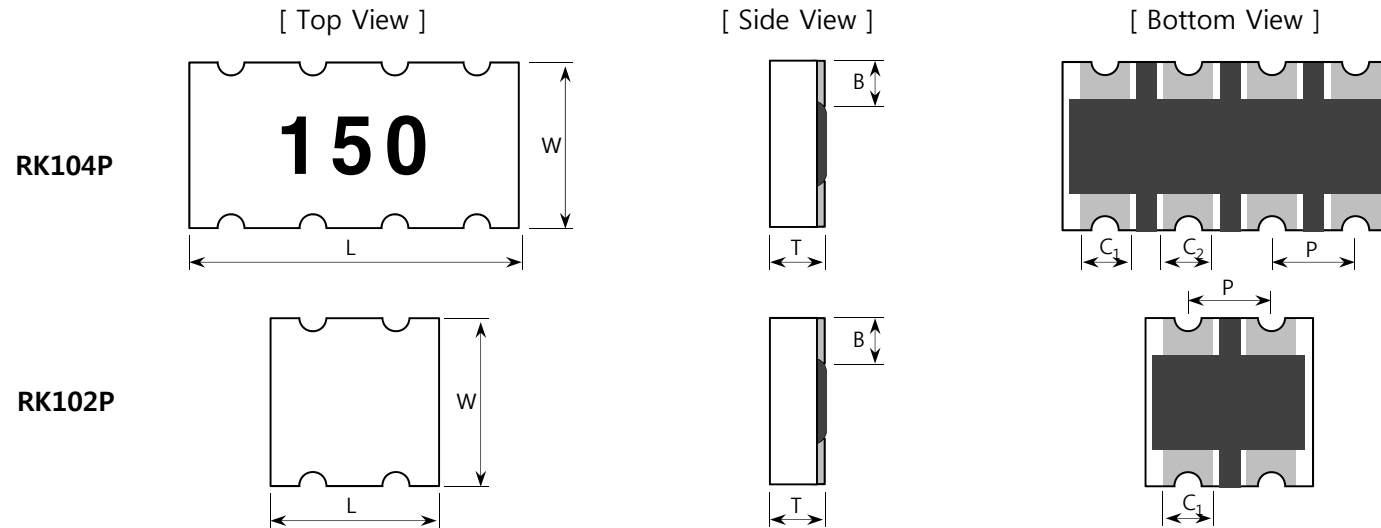
■ Structure and Dimensions



[Unit : mm]

Size(mil)	L	W	T	A	B	C ₁	C ₂	P	Unit Weight
RM102P(0404)	1.00±0.10	1.00±0.10	0.35±0.10	0.15±0.10	0.25±0.15	0.33±0.10	-	0.50±0.10	1.2mg
RM104P(0804)	2.00±0.10	1.00±0.10	0.45±0.10	0.15±0.10	0.25±0.15	0.30±0.10	0.30±0.10	0.50±0.10	2.8mg

■ Structure and Dimensions



[Unit : mm]

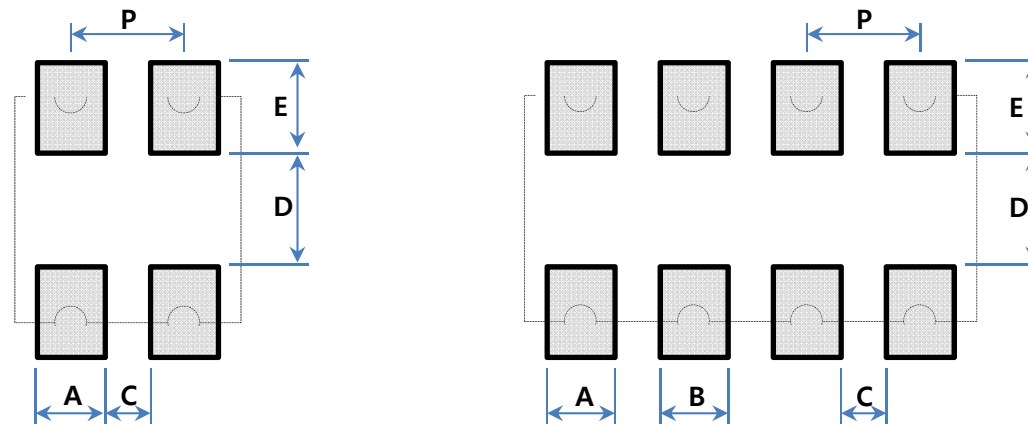
Size(mil)	L	W	T	B	C ₁	C ₂	P	Unit Weight
RK102P(0404)	1.00±0.10	1.00±0.10	0.35±0.10	0.25±0.15	0.33±0.10	-	0.50±0.10	1.2mg
RK104P(0804)	2.00±0.10	1.00±0.10	0.45±0.10	0.25±0.15	0.30±0.10	0.30±0.10	0.50±0.10	2.8mg

■ Application Characteristics

Type	Size (inch)	Rated Power [W]	Rated Voltage [V]	Max Working Voltage [V]	Tolerance [%]	Resistance Range [Ω]	T.C.R [ppm/°C]	Working Temp. [°C]	Moisture Level
102P	0404	1/16	$\sqrt{P \times R}$ P : Rated Power(W) R : Resistance(Ω)	25	$\pm 1(F)$ $\pm 2(G)$ $\pm 5(J)$	1.0 ~ 9.9 10 ~ 1M	± 300 ± 200	-55 ~ 155	Level 1
104P	0804	1/16		25					

- Please contact our sales representatives or engineers for other specifications

■ Standard Soldering Pad Dimensions



[Unit : mm]

Size(mil)	A	B	C	D	E	P
102P(0404)	0.3	-	0.2	0.5	0.4	0.5
104P(0804)	0.3	0.3	0.2	0.5	0.4	0.5

■ Performance Characteristics

ITEM	Requirements Specification		Test Conditions (JIS C 5201-1)
	Resistors	Jumpers	
Resistance	Within the specified tolerance	Max 50mΩ	JIS C 5201-1 4.5
Temperature Characteristic	$\Delta R \leq \pm 200\text{ppm}$	Max 50mΩ	JIS C 5201-1 4.8 +20°C → -55°C / +20°C → +125°C
Short time Overload	$\Delta R < \pm 1\% + 0.1\Omega$	Max 50mΩ	JIS C 5201-1 4.13 Rated Voltage×2.5, 5sec
Solderability	Immersed over 95%		JIS C 5201-1 4.17 Rosin Ethanol (25%WT) 245±5/-0°C, 2±0.5 sec
Resistance to Solder Heat	$\Delta R < \pm 1\% + 0.1\Omega$	Max 50mΩ	JIS C 5201-1 4.18 260±5°C, 10±1 sec
Temperature Cycle	$\Delta R < \pm 1\% + 0.1\Omega$	Max 50mΩ	JIS C 5201-1 4.19 -55°C ↔ +155°C, 100 cycle
Moisture Resistance	$\Delta R < \pm 3\% + 0.1\Omega$	Max 50mΩ	JIS C 5201-1 4.24 40±2°C, 90~95%RH, 1000 ⁺⁴⁸ hours
Load Life	$\Delta R < \pm 3\% + 0.1\Omega$	Max 50mΩ	JIS C 5201-1 4.25 Rated Voltage, 70±2°C, 1000 ⁺⁴⁸ hours 90mins ON, 30mins OFF
High Temp. Exposure	$\Delta R < \pm 3\% + 0.1\Omega$	Max 50mΩ	JIS C 5201-1 4.25.3 155±2°C, 1000 ⁺⁴⁸ hours

※ The reliability test condition can be replaced by the corresponding accelerated test condition.



Product specifications included in the specifications are effective as of March 01, 2015.

Please be advised that they are standard product specifications for reference only.

We may change, modify or discontinue the product specifications without notice at any time.

So, you need to approve the product specifications before placing an order.

Should you have any question regarding the product specifications,

please contact our sales personnel or application engineers.
