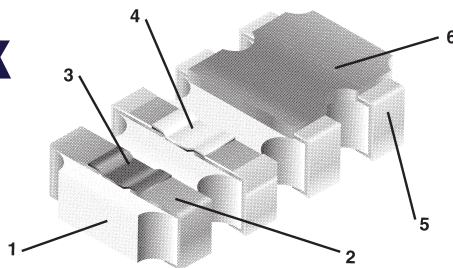
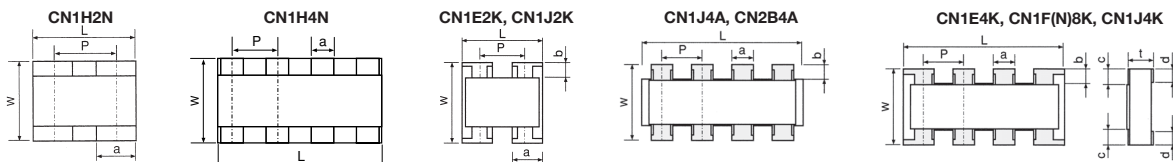
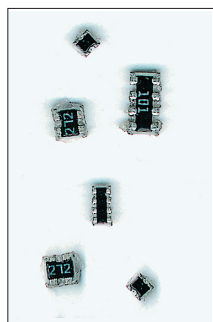


THICK FILM R-NETWORK CONVEX TERMINATIONS CN-K • CN-A



STRUCTURE

- 1 Ceramic substrate
- 2 Inner electrode
- 3 RuO₂ resistive film
- 4 Inner glass passivation
- 5 Outer electrode
- 6 Protective coating



IDENTIFICATION

TYPE	BODY COLOR	MARKING
CN1H, CN1E, CN1FN8K	Black	None
CN1F, CN1J, CN2B		White, 3 digits
CN1J4 A/K (±1%)		White, 4 digits (E24 & E96)

Products with Pb-free terminations meet EU-RoHS requirements

TYPE DESIGNATION (HOW TO ORDER)

CN	1J	4	K	T	TD	101	J	
PRODUCT CODE	STYLE 1H, 1E, 1F 1J, 2B	MARKING FOR 1F8 1J, 2B	NUMBER OF RESISTORS 2, 4, 8	TERMINATION STYLE K: convex, square corners A: convex scalloped corners N: flat type, square corners	TERMINATION SURFACE MATERIAL T: Sn (L: Sn/Pb)	TAPING* TD, TE, BK *Please see "PACKAGING"	NOMINAL RESISTANCE F: 4 digits J: 3 digits	TOLERANCE F: (±1%) J: (±5%)

Contact us when you have control request for environmental hazardous material other than the substance specified by EU-RoHS

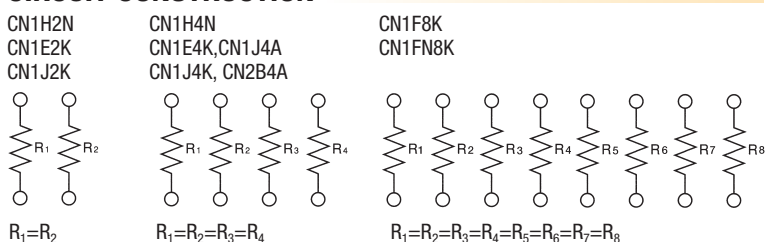
DIMENSIONS (mm)

SIZE	TYPE	L	W	c	d	t ±0.1	a	b	P (ref.)
0302 (2 x 02015)	NEW CN 1H 2 N	0.8 ± 0.1	0.6 ± 0.1	0.15 ± 0.1	0.15 ± 0.1	0.35	0.3 ± 0.1	—	(0.5)
0602 (4 x 02015)	CN 1H 4 N	1.4 ± 0.1	0.6 ± 0.08	0.1 ± 0.08	0.2 ± 0.08	0.35	0.2 ± 0.1	—	(0.4)
0404 (2 x 0402)	CN 1E 2 K	1.0 ± 0.1	1.0 ± 0.1	0.15 ± 0.1	0.25 ± 0.1	0.35	0.33 ± 0.1	0.17 ± 0.05	(0.65)
0804 (4 x 0402)	CN 1E 4 K	2.0 ± 0.1	1.0 ± 0.1	0.15 ± 0.1	0.25 ± 0.2	0.35	0.3 ± 0.15	0.15 ± 0.1	(0.5)
1506 (8 x 0602)	CN 1F (N) 8 K	3.8 ± 0.1	1.6 ± 0.1	0.3 ± 0.1	0.3 ± 0.1	0.45	0.3 ± 0.1	(0.15)	(0.5)
0606 (2 x 0603)	CN 1J 2 K	1.6 ± 0.15	1.6 ± 0.15	0.3 ± 0.2	0.25 ± 0.1	0.5	0.6 ± 0.15	0.3 ± 0.1	(0.8)
1206 (4 x 0603)	CN 1J 4 A	3.2 ± 0.15	1.6 ± 0.15	0.3 ± 0.2	0.25 ± 0.1	0.5	0.5 ± 0.15	0.3 ± 0.1	(0.8)
1206 (4 x 0603)	CN 1J 4 K	3.2 ± 0.15	1.6 ± 0.15	0.3 ± 0.2	0.25 ± 0.1	0.5	0.5 ± 0.15	0.3 ± 0.1	(0.8)
2012 (4 x 1206)	CN 2B 4 A	5.1 ± 0.2	3.1 ± 0.2	0.5 ± 0.2	0.35 ± 0.15	0.55	0.8 ± 0.2	0.45 ± 0.1	(1.27)

FEATURES

- 2, 4 or 8 isolated resistor elements included in one array
- Less board space than individual chip resistors
- High cost reduction efficiency by eliminating mounter operations
- Square corner design (CN-K) or scalloped corner design (CN-A)
- Precision type ±1% is available
- CN1J4K parts are tested according to AEC-Q200 requirements
- Meets or exceeds IEC 60115-1, JIS C 5201-1
- Rated ambient temperature: +70°C
- Operating temperature range: -55°C ... +125°C (+155°C on request)
- Suitable as pull-up/pull-down resistors for digital circuits
- Suitable for reflow soldering

CIRCUIT CONSTRUCTION



RATING

SIZE	TYPE	T.C.R. (ppm/K)	POWER* RATING (per element)	MAX. WORKING VOLTAGE	MAX. OVERLOAD VOLTAGE	RESISTANCE RANGE	
						F(±1%) E24 • E96	J(±5%) E24
0302 (2 x 02015)	NEW CN 1H 2 N	±200: R ≥ 10 Ω ±400: R < 10 Ω	0.031 W	12.5 V	25 V	—	10 Ω ... 1 MΩ
0602 (4 x 02015)	CN 1H 4 N						
0404 (2 x 0402)	CN 1E 2 K	±200: R ≥ 10 Ω ±400: R < 10 Ω	0.063 W**	25 V	50 V	10 Ω ... 100 kΩ	1 Ω ... 1 MΩ
0804 (4 x 0402)	CN 1E 4 K						
1506 (8 x 0602)	CN 1F (N) 8 K	±200: R ≥ 10 Ω ±400: R < 10 Ω	0.063 W**	50 V	100 V	10 Ω ... 1 MΩ	1 Ω ... 1 MΩ
0606 (2 x 0603)	CN 1J 2 K						
1206 (4 x 0603)	CN 1J 4 A	±200: R ≥ 10 Ω ±400: R < 10 Ω	0.125 W	200 V	400 V	—	10 Ω ... 1 MΩ
1206 (4 x 0603)	CN 1J 4 K						
2012 (4 x 1206)	CN 2B 4 A	±200: R ≥ 10 Ω ±400: R < 10 Ω	0.125 W	200 V	400 V	—	10 Ω ... 1 MΩ

* For resistors operated at an ambient temperature of +70°C or above, the power rating shall be derated.

** CN1F8K: max. 0.25 W/Package.

Please note that network resistors generate higher heat rather than single flat chip resistors even under rated power output.

A few cross talks will occur in network resistors. In case of using them for a high frequency circuit, please design circuits taking the effect by the cross talks into consideration.

Rated voltage = √ Power rating x resistance value or max. working voltage, whichever is lower.