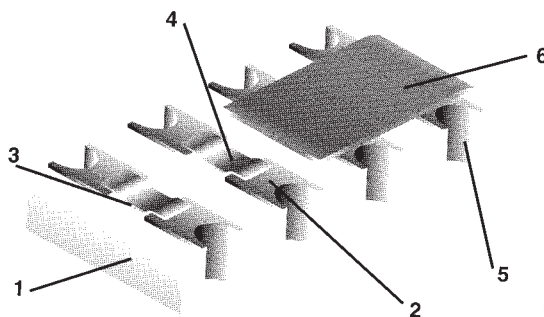


THICK FILM R-NETWORK

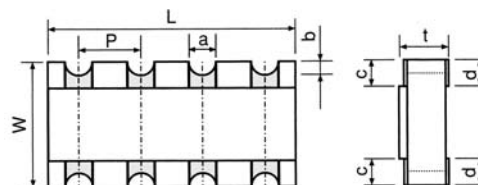
CONCAVE TERMINATIONS

CN



STRUCTURE

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



IDENTIFICATION

TYPE	COATING COLOR	MARKING
CN	Black	White, 3 digits

Products with Pb-free terminations meet RoHS requirements

TYPE DESIGNATION (HOW TO ORDER)

Old Part No.	CN	2A	4	J		TE	100R	
New Part No. (Pb-free)	CN	2A	4		T	TE	101	J
	PRODUCT CODE	STYLE 1J, 2A, 2B	NO. OF RESISTORS 2, 4, 8	TOLERANCE	TERMINATION SURFACE MATERIAL T: Sn L: Sn/Pb	TAPING* TD, TE, BK	NOMINAL RESISTANCE F: 4 digits G, J: 3 digits	TOLERANCE F: ±1% G: ±2% J: ±5%

*Please see "PACKAGING"

DIMENSIONS (mm)

SIZE	TYPE	L ±0.2	W ±0.2	c	d ±0.1	t	a (top)	a (bottom)	b ±0.1	P (ref.)
0606 (2 x 0603)	CN 1J 2	1.6	1.6	0.3 ± 0.2	0.40	0.6 ± 0.1	0.5 ± 0.1	0.4 ± 0.15	0.15	(0.80)
1206 (4 x 0603)	CN 1J 4	3.2								
2506 (8 x 0603)	CN 1J 8	6.4								
1008 (2 x 0805)	CN 2A 2	2.54	2.0	0.4 ± 0.2	0.55	0.6 ± 0.1	0.8 ± 0.1	0.75 ± 0.15	0.15	(1.27)
2008 (4 x 0805)	CN 2A 4	5.08								
4008 (8 x 0805)	CN 2A 8	10.16								
1012 (2 x 1206)	CN 2B 2	2.54	3.2	0.5 ± 0.3	0.55	0.6 ± 0.1	0.8 ± 0.1	0.75 ± 0.15	0.15	(1.27)
2012 (4 x 1206)	CN 2B 4	5.08								
4012 (8 x 1205)	CN 2B 8	10.16								

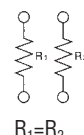
Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use.

FEATURES

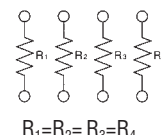
- 2, 4 or 8 isolated resistor elements included in one array
- Less board space than individual chip resistors
- High cost reduction efficiency by eliminating mounter operations
- High self-alignment effect in reflow soldering process
- Suitable for image recognition systems due to square corner design
- Precision type ±1% is available
- Meets or exceeds IEC 60115-1, JIS C 5201-1
- Rated ambient temperature: +70° C
- Operating temperature range: -55° C ... +125° C
- Suitable for reflow and wave soldering

CIRCUIT CONSTRUCTION

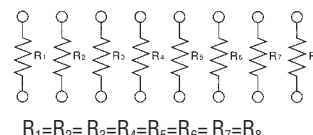
CN1J2
CN2A2
CN2B2



CN1J4
CN2A4
CN2B4



CN1J8
CN2A8
CN2B8



RATING

SIZE	TYPE	T.C.R. (ppm/K)	POWER RATING (per element)*	MAX. WORKING VOLTAGE	MAX. OVERLOAD VOLTAGE	RESISTANCE RANGE		
						F (±1%) E24 • E96	G (±2%) E24	J (±5%) E24
2, 4, 8 x 0603	CN 1J	± 200: R ≥ 10 Ω	0.063 W	50 V	100 V	10 Ω ... 1 MΩ**	10 Ω ... 1 MΩ	10 Ω*** ... 1 MΩ
2, 4, 8 x 0805	CN 2A		0.1 W	100 V	200 V			
2, 4, 8 x 1206	CN 2B	± 400: R < 10 Ω	0.125 W	200 V	400 V			

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

** Tolerance F (±1%) not available for CN2A8 and CN2B8

*** CN1J4 is available in the ohmic range 1Ω ... 1MΩ (± 5%)

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.