

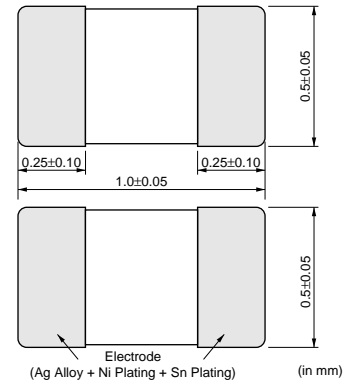
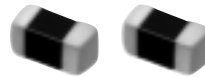
NTC Thermistors



for Temperature Compensation 0402 (1005) Size

2

0201/0402/0603/0805 sized Chip NTC Thermistors have Ni barrier termination and provide excellent solderability and offer high stability in environment by unique inner construction.



■ Features

1. Excellent solderability and high stability in environment
2. Excellent long time aging stability
3. High accuracy in resistance and B-constant
4. Reflow soldering possible
5. Same B-constant in the same resistance in the three sizes (0805/0603/0402)
Easy to use smaller size in the circuits
6. Lead is not contained in the product.
7. NCP15/18/21 series are recognized by UL (UL1434, File No. E137188 Vol. 2, Sec. 2)

■ Applications

1. Temperature compensation of transistor, IC, crystal oscillator of mobile communications equipment
2. Temperature sensor for rechargeable batteries
3. Temperature compensation of LCD
4. Temperature compensation and sensing of car audio equipment (CD, MD, Tuner)
5. Temperature compensation of several kinds of circuits

Part Number	Resistance (25°C)	B-Constant (25-50°C) (K)	Permissive Operating Current (25°C) (mA)	Rated Electric Power (25°C) (mW)	Typical Dissipation Constant (25°C) (mW/°C)	Operating Temperature Range (°C)
NCP15XC220□03RC	22ohm	3100 ±3%	6.70	100	1.0	-40 to 125
NCP15XC330□03RC	33ohm	3100 ±3%	5.50	100	1.0	-40 to 125
NCP15XC470□03RC	47ohm	3100 ±3%	4.60	100	1.0	-40 to 125
NCP15XC680□03RC	68ohm	3100 ±3%	3.80	100	1.0	-40 to 125
NCP15XF101□03RC	100ohm	3250 ±3%	3.10	100	1.0	-40 to 125
NCP15XF151□03RC	150ohm	3250 ±3%	2.50	100	1.0	-40 to 125
NCP15XM221□03RC	220ohm	3500 ±3%	2.10	100	1.0	-40 to 125
NCP15XM331□03RC	330ohm	3500 ±3%	1.70	100	1.0	-40 to 125
NCP15XQ471□03RC	470ohm	3650 ±2%	1.40	100	1.0	-40 to 125
NCP15XQ681□03RC	680ohm	3650 ±3%	1.20	100	1.0	-40 to 125
NCP15XQ102□03RC	1.0k ohm	3650 ±2%	1.00	100	1.0	-40 to 125
NCP15XW152□03RC	1.5k ohm	3950 ±3%	0.81	100	1.0	-40 to 125
NCP15XW222□03RC	2.2k ohm	3950 ±3%	0.67	100	1.0	-40 to 125
NCP15XW332□03RC	3.3k ohm	3950 ±3%	0.55	100	1.0	-40 to 125
NCP15XM472□03RC	4.7k ohm	3500 ±2%	0.46	100	1.0	-40 to 125
NCP15XW682□03RC	6.8k ohm	3950 ±3%	0.38	100	1.0	-40 to 125
NCP15XH103□03RC	10k ohm	3380 ±1%	0.31	100	1.0	-40 to 125
NCP15XV103□03RC	10k ohm	3900 ±3%	0.31	100	1.0	-40 to 125
NCP15XW153□03RC	15k ohm	3950 ±3%	0.25	100	1.0	-40 to 125
NCP15XW223□03RC	22k ohm	3950 ±3%	0.21	100	1.0	-40 to 125
NCP15WL223□03RC	22k ohm	4485 ±1%	0.21	100	1.0	-40 to 125
NCP15WB333□03RC	33k ohm	4050 ±3%	0.17	100	1.0	-40 to 125

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Part Number	Resistance (25°C)	B-Constant (25-50°C) (K)	Permissible Operating Current (25°C) (mA)	Rated Electric Power (25°C) (mW)	Typical Dissipation Constant (25°C) (mW/°C)	Operating Temperature Range (°C)
NCP15WL333□03RC	33k ohm	4485 ±1%	0.17	100	1.0	-40 to 125
NCP15WB473□03RC	47k ohm	4050 ±1%	0.14	100	1.0	-40 to 125
NCP15WL473□03RC	47k ohm	4485 ±1%	0.14	100	1.0	-40 to 125
NCP15WD683□03RC	68k ohm	4150 ±3%	0.12	100	1.0	-40 to 125
NCP15WL683□03RC	68k ohm	4485 ±1%	0.12	100	1.0	-40 to 125
NCP15WF104□03RC	100k ohm	4250 ±1%	0.10	100	1.0	-40 to 125
NCP15WL104□03RC	100k ohm	4485 ±1%	0.10	100	1.0	-40 to 125
NCP15WM154□03RC	150k ohm	4500 ±3%	0.08	100	1.0	-40 to 125
NCP15WL154□03RC	154k ohm	4485 ±1%	0.08	100	1.0	-40 to 125
NCP15WM224□03RC	220k ohm	4500 ±3%	0.06	100	1.0	-40 to 125
NCP15WM474□03RC	470k ohm	4500 ±3%	0.04	100	1.0	-40 to 125

A blank column is filled with resistance tolerance codes. (J: ±5%, K: ±10%)

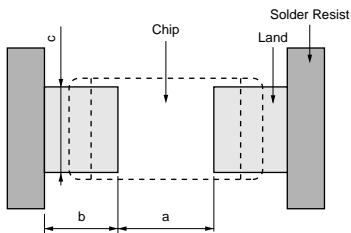
Tolerance ±1% is also available for the following type.

10k ohm: NCP15XH103F03RC

47k ohm: NCP15WB473F03RC

100k ohm: NCP15WF104F03RC

Standard Land Dimensions



Soldering Methods	a	b	c
Reflow Soldering	0.4	0.4-0.5	0.5

(in mm)