



小一體成型電感選型手冊

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※ Features

- ◆ Low loss, low impedance
- ◆ Good magnetic shielding performance and EMI performance
- ◆ Small parasitic capacitance

※ Application

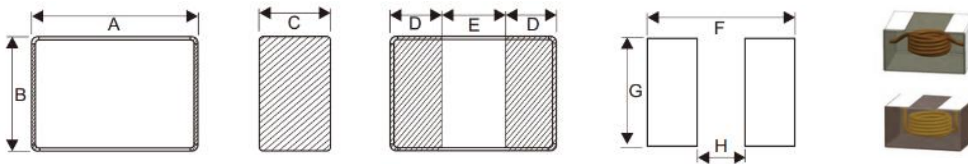
- ◆ Smart phone 5G communications Internet of Things DC/DC Converters

※ Regulation of Part number:

NCPC	201610	L	1R0	M	T
①	②	③	④	⑤	⑥

- ① Product category: NCA: Molding Power Inductor
- ② Dimensions(unit:mm):2.0x1.6x1.0
- ③ Electrode shape: "L" Electrode shape
Base Electrode
- ④ Inductance Value:1R0=1.0 μ H
- ⑤ Accuracy Control : K:±10% L:±15% M:±20% N:±30%
- ⑥ Special Mark

※ Dimensions in millimeter (unit:mm)



Type	Dimensions (mm) [inch]			
	A	B	C	D
252008	2.50±0.20	2.0±0.20	0.8±0.20	0.50±0.30
252010	2.50±0.20	2.0±0.20	1.0±0.20	0.50±0.30
252012	2.50±0.20	2.0±0.20	1.2±0.20	0.50±0.30

Type	Dimensions (mm) [inch]			
	A	B	C	D
201608	2.00±0.20	1.60±0.20	0.8±0.20	0.50±0.30
201610	2.00±0.20	1.60±0.20	1.0±0.20	0.50±0.30
201612	2.00±0.20	1.60±0.20	1.2±0.20	0.50±0.30

※ Note:

- ◆ All test data is reference to 25℃ ambient.
- ◆ Test Condition: 1000KHz, 1.0V
- ◆ Irms: DC current (A) that will cause an approximate ΔT of 40℃
- ◆ Isat : DC current (A) that will cause L0 to drop approximately 30%
- ◆ Operat between temperature range -55℃ to +125℃

The part temperature (ambient + temp rise) should not exceed 125℃ under the worst case operating conditions.Circuit design, component.PWB trace size and thickness, airflow and other cooling provision all affect the part temperature.Part temperature should be verified in the end application.

- ◆ The rated current as listed is either the saturation current or the heating current depending on which value is lower.

NCPC 2016 Series

P/N.	Lo(μ H) Inductance $\pm 20\%$ @0A(μ H)	DCR($m\Omega$)@25°C		Heat Rating Current DC Amps. I _{rms} (A)		Saturation Current DC Amps. I _{sat} (A)	
		Typ	Max	Typ	Max	Typ	Max
NCPC201608L-R47MT	0.47	26	32	4.8	4.3	5.2	4.8
NCPC201608L-1R0MT	1.00	55	62	3.7	3.4	4.3	3.6
NCPC201608L-2R2MT	2.20	125	140	2.6	2.3	2.9	2.5
NCPC201608L-3R3MT	3.30	180	200	2.0	1.8	2.2	2.0
NCPC201610L-R47MT	0.47	23	28	5.0	4.5	5.5	5.0
NCPC201610L-1R0MT	1.00	50	57	4.0	3.6	4.5	4.0
NCPC201610L-2R2MT	2.20	110	125	3.0	2.5	3.2	2.8
NCPC201610L-3R3MT	3.30	155	175	2.2	2.0	2.4	2.2
NCPC201612L-R47MT	0.47	22	27	5.3	5.0	5.9	5.5
NCPC201612L-1R0MT	1.00	48	55	4.2	3.8	4.7	4.2
NCPC201612L-2R2MT	2.20	98	110	3.2	2.7	3.5	3.0
NCPC201612L-3R3MT	3.30	145	165	2.6	2.3	2.9	2.5
NCPC201608L-R47MS	0.47	34	40	4.1	3.7	4.9	4.5
NCPC201608L-1R0MS	1.00	65	75	3.2	2.9	3.5	3.0
NCPC201608L-2R2MS	2.20	145	160	2.1	1.8	2.4	2.0
NCPC201608L-3R3MS	3.30	195	215	1.9	1.6	2.0	1.8
NCPC201610L-R47MS	0.47	28	35	4.7	4.3	5.2	4.8
NCPC201610L-1R0MS	1.00	60	70	3.5	3.1	3.8	3.5
NCPC201610L-2R2MS	2.20	125	140	2.6	2.1	2.9	2.4
NCPC201610L-3R3MS	3.30	175	195	2.1	1.8	2.2	2.0
NCPC201612L-R47MS	0.47	27	32	5.0	4.5	5.5	5.0
NCPC201612L-1R0MS	1.00	52	60	3.7	3.3	4.1	3.7
NCPC201612L-2R2MS	2.20	110	125	2.7	2.2	3.0	2.5
NCPC201612L-3R3MS	3.30	155	175	2.2	2.0	2.4	2.2
NCPC201608L-R47MP	0.47	40	45	3.5	3.2	4.2	4.2
NCPC201608L-1R0MP	1.00	75	85	2.9	2.4	2.8	2.5
NCPC201608L-2R2MP	2.20	160	180	1.7	1.5	2.0	1.7
NCPC201608L-3R3MP	3.30	215	235	1.5	1.3	1.8	1.5
NCPC201610L-R47MP	0.47	35	40	4.0	3.5	4.9	4.5
NCPC201610L-1R0MP	1.00	70	80	3.1	2.7	3.5	3.0
NCPC201610L-2R2MP	2.20	140	160	2.2	1.8	2.5	2.0
NCPC201610L-3R3MP	3.30	195	215	1.7	1.5	2.0	1.7
NCPC201612L-R47MP	0.47	33	38	4.5	4.0	5.2	4.8
NCPC201612L-1R0MP	1.00	62	70	3.2	2.9	3.6	3.2
NCPC201612L-2R2MP	2.20	130	145	2.5	2.0	2.7	2.2
NCPC201612L-3R3MP	3.30	175	195	1.9	1.7	2.2	2.0

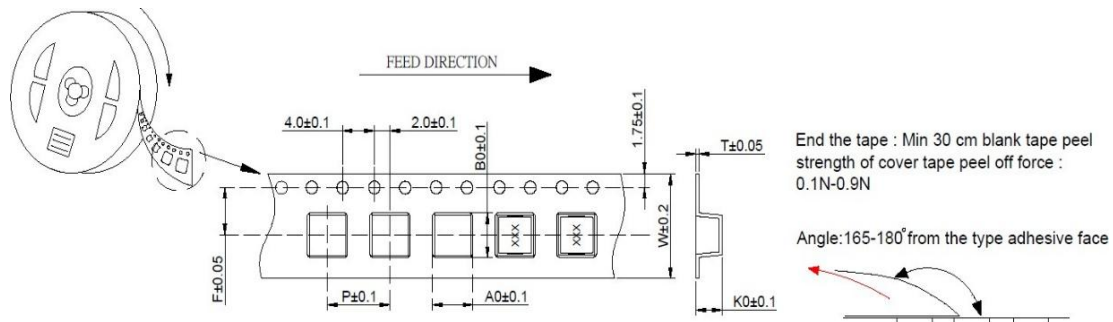


NCPC2520 Series

P/N.	Lo(μ H) Inductance $\pm$ 20% @0A(μ H)	DCR(m Ω)@25 $^{\circ}$ C		Heat Rating Current DC Amps. Irms (A)		Saturation Current DC Amps. Isat (A)	
		Typ	Max	Typ	Max	Typ	Max
NCPC252008L-R47MT	0.47	20	25	5.3	5.0	6.3	6.0
NCPC252008L-1R0MT	1.00	52	58	4.5	4.0	5.0	4.5
NCPC252008L-2R2MT	2.20	95	110	3.1	2.7	3.5	3.0
NCPC252008L-3R3MT	3.30	145	165	2.2	1.8	2.5	2.2
NCPC252010L-R47MT	0.47	18	23	5.5	5.2	6.5	6.2
NCPC252010L-1R0MT	1.00	46	52	4.8	4.3	5.2	4.8
NCPC252010L-2R2MT	2.20	85	98	3.3	3.0	3.7	3.3
NCPC252010L-3R3MT	3.30	130	150	2.5	2.0	3.0	2.5
NCPC252012L-R47MT	0.47	17	21	6.5	6.0	7.5	7.0
NCPC252012L-1R0MT	1.00	44	50	5.0	4.5	6.0	5.2
NCPC252012L-2R2MT	2.20	75	85	3.5	3.2	4.0	3.5
NCPC252012L-3R3MT	3.30	120	140	2.8	2.3	3.0	2.8
NCPC252008L-R47MS	0.47	25	30	5.0	4.5	6.0	5.5
NCPC252008L-1R0MS	1.00	56	62	4.1	3.6	4.7	4.2
NCPC252008L-2R2MS	2.20	105	120	2.9	2.5	3.2	2.8
NCPC252008L-3R3MS	3.30	155	175	2.0	1.6	2.3	2.0
NCPC252010L-R47MS	0.47	23	28	5.5	5.0	6.0	5.5
NCPC252010L-1R0MS	1.00	50	55	4.2	3.8	4.8	4.2
NCPC252010L-2R2MS	2.20	98	110	2.8	2.5	3.0	2.7
NCPC252010L-3R3MS	3.30	140	160	2.3	1.8	2.8	2.3
NCPC252012L-R47MS	0.47	22	27	6.0	5.5	6.5	6.0
NCPC252012L-1R0MS	1.00	47	52	4.5	4.0	5.0	4.5
NCPC252012L-2R2MS	2.20	85	100	3.2	2.7	3.5	3.0
NCPC252012L-3R3MS	3.30	130	150	2.5	2.0	3.0	2.5
NCPC252008L-R47MP	0.47	35	40	4.5	4.0	5.0	4.50
NCPC252008L-1R0MP	1.00	62	70	4.0	3.5	4.5	4.0
NCPC252008L-2R2MP	2.20	125	140	2.4	2.2	2.8	2.5
NCPC252008L-3R3MP	3.30	170	190	1.8	1.4	2.1	1.8
NCPC252010L-R47MP	0.47	30	35	5.0	4.5	5.5	5.0
NCPC252010L-1R0MP	1.00	57	62	3.7	3.3	4.20	3.8
NCPC252010L-2R2MP	2.20	115	130	2.8	2.2	3.0	2.4
NCPC252010L-3R3MP	3.30	155	175	2.1	1.6	2.6	2.1
NCPC252012L-R47MP	0.47	28	33	5.0	4.5	5.7	5.2
NCPC252012L-1R0MP	1.00	50	60	4.0	3.5	4.5	4.0
NCPC252012L-2R2MP	2.20	100	115	3.0	2.5	3.2	2.7
NCPC252012L-3R3MP	3.30	145	165	2.3	1.8	2.8	2.3

Package

Taping Dimension (mm)



Size(mm)	W	P	A0	B0	K0	T	F
201608	8 ± 0.1	4	1.90 ± 0.1	2.35 ± 0.1	1.00 ± 0.1	0.25	3.5
201610	8 ± 0.1	4	1.95 ± 0.1	2.35 ± 0.1	1.15 ± 0.1	0.25	3.5
201612	8 ± 0.1	4	1.90 ± 0.1	2.30 ± 0.1	1.35 ± 0.1	0.25	3.5
252008	8 ± 0.1	4	2.35 ± 0.1	2.80 ± 0.1	1.00 ± 0.1	0.25	3.5
252010	8 ± 0.1	4	2.45 ± 0.1	2.80 ± 0.1	1.20 ± 0.1	0.25	3.5
252012	8 ± 0.1	4	2.35 ± 0.1	2.80 ± 0.1	1.35 ± 0.1	0.25	3.5

Reel Dimension (mm)



Size(mm)	A	B	C	Qty./Size
201608	178 ± 2.0	60 ± 2.0	13 ± 2.0	3000
201610	178 ± 2.0	60 ± 2.0	13 ± 2.0	3000
201612	178 ± 2.0	60 ± 2.0	13 ± 2.0	3000
252008	178 ± 2.0	60 ± 2.0	13 ± 2.0	3000
252010	178 ± 2.0	60 ± 2.0	13 ± 2.0	3000
252012	178 ± 2.0	60 ± 2.0	13 ± 2.0	3000