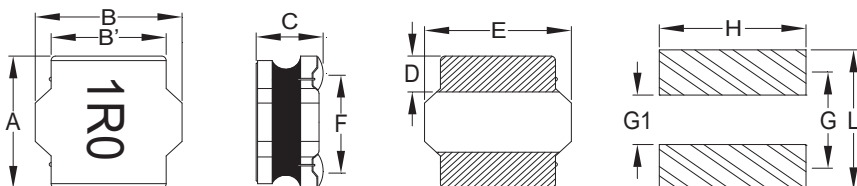




SMD SHIELDED POWER CHIP INDUCTOR

PCHP64NF

Dimensions: $\frac{\text{inch}}{\text{mm}}$



Recommended PCB Layout

A	B	B'	C	D	E	F
236±.012 (6.0±0.3)	236±.012 (6.0±0.3)	189±.008 (4.8±0.2)	165±.012 (4.2±0.3)	.067±.012 (1.7±0.3)	.177±.012 (4.5±0.3)	.167±.012 (4.25±0.3)

L	G	G1	H
.268 (6.5)	.167 (4.25)	.071 (1.8) Min	.168 (4.8)

Note: 1. PCB layout is reference only.
2. Recommend solder paste thickness of 0.15mm and above.

Features

- Magnetically Shielded Construction
- Low Profile
- Low DC Resistance

Electrical

Inductance Range: .36μH - 470μH

Tolerance: 10%, 15%, 20%, and 30%

Operating Temp: -40°C to +125°C

MSL: Level 1

Isat: DC current at which the inductance drops approximately 30% from its value without current.

Irms: DC current that causes the temperature rise ($\Delta T = 40^\circ\text{C}$) from 25°C ambient.

Solderability

Pre-Heat: 150°C, 1Min

Solder Composition: Sn96.5%, AG3%, Cu0.5%

Temperature: 245±5°C

Flux for Lead Free: Rosin 9.5%

Dip Time: 4±1Sec

Depth: Completely cover the termination

Test Equipment

(L): HP4284A, CH11025, CH3302, CH1320, CH1320S LCR Meter

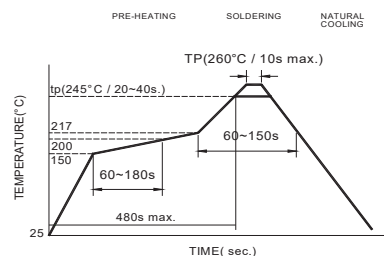
(DCR): CH16502, Agilent 33420A Micro-Ohm Meter

Physical

Packaging: 1000 per 13" Reel

Marking: EIA Code

Reflow Soldering



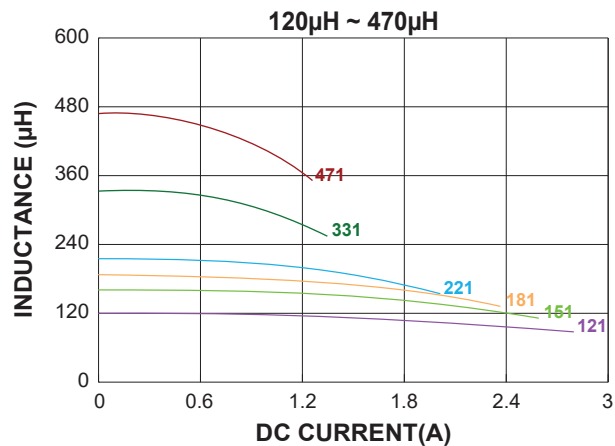
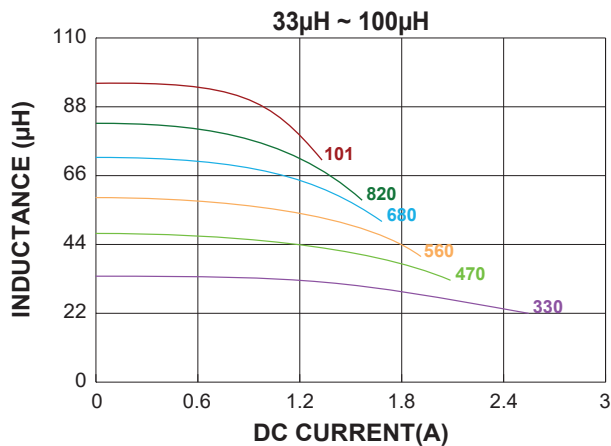
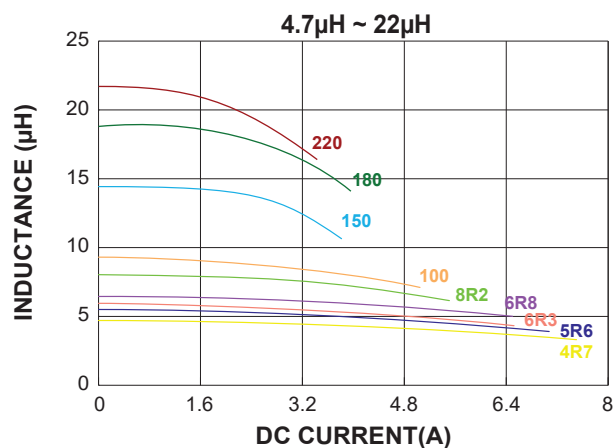
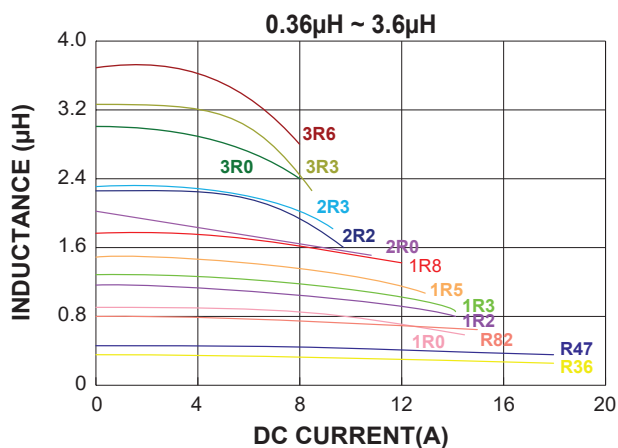
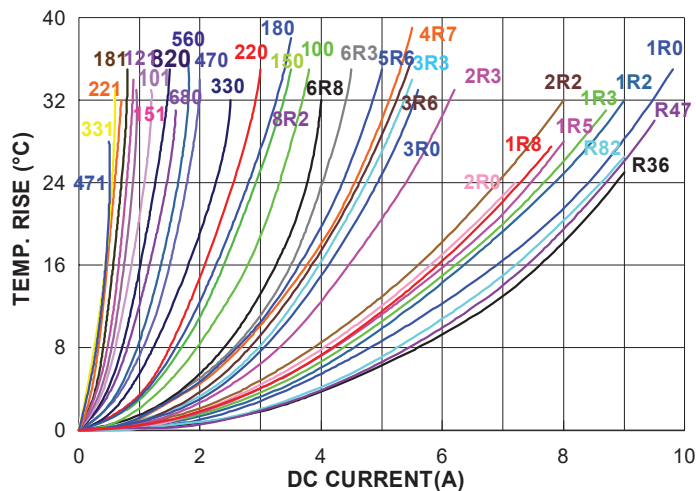
Reflow times: 3 times max.

*Allied Part Number	Inductance (μH)	Tolerance (%)	Test Freq. mHz, 1V	DCR (mΩ) ±20%	Irms (A) Typ	Irms (A) Max	Isat (A) Typ	Isat (A) Max
PCHP64NF-R36_-RC	0.36	M, N	1	4.80	9.00	8.50	18.0	16.5
PCHP64NF-R47_-RC	0.47	M, N	1	6.80	8.60	8.00	17.0	16.0
PCHP64NF-R82_-RC	0.82	M, N	1	8.50	8.20	7.50	14.5	13.5
PCHP64NF-1R0_-RC	1.0	M, N	1	10.0	8.00	7.30	13.5	12.5
PCHP64NF-1R2_-RC	1.2	M, N	1	10.5	7.50	7.00	12.5	11.5
PCHP64NF-1R3_-RC	1.3	M, N	1	10.5	7.50	7.00	12.5	11.5
PCHP64NF-1R5_-RC	1.5	M, N	1	11.7	7.00	6.60	12.0	11.0
PCHP64NF-1R8_-RC	1.8	M, N	1	12.0	6.80	6.20	11.0	10.0
PCHP64NF-2R0_-RC	2.0	M, N	1	13.5	6.50	5.80	10.5	9.50
PCHP64NF-2R2_-RC	2.2	M, N	1	15.0	6.00	5.30	9.50	8.55
PCHP64NF-2R3_-RC	2.3	M, N	1	16.0	5.80	5.00	9.30	8.20
PCHP64NF-3R0_-RC	3.0	M, N	1	20.0	5.20	4.60	8.00	7.50
PCHP64NF-3R3_-RC	3.3	M, N	1	21.0	5.00	4.50	7.80	7.30
PCHP64NF-3R6_-RC	3.6	M, N	1	22.5	4.90	4.30	7.40	6.90
PCHP64NF-4R7_-RC	4.7	L, M, N	1	26.0	4.50	4.00	6.80	6.20
PCHP64NF-5R6_-RC	5.6	L, M, N	1	31.0	4.10	3.70	6.40	5.70
PCHP64NF-6R3_-RC	6.3	L, M, N	1	33.0	3.80	3.50	5.90	5.30
PCHP64NF-6R8_-RC	6.8	L, M, N	1	34.0	3.60	3.30	5.70	5.15
PCHP64NF-8R2_-RC	8.2	L, M, N	1	46.0	3.40	2.90	5.10	4.50
PCHP64NF-100_-RC	10	K, L, M, N	1	52.0	3.20	2.60	4.60	4.20
PCHP64NF-150_-RC	15	K, L, M, N	1	71.0	2.80	2.20	3.80	3.30
PCHP64NF-180_-RC	18	K, L, M, N	1	80.0	2.60	2.10	3.40	2.90
PCHP64NF-220_-RC	22	K, L, M, N	1	96.0	2.30	1.90	3.30	2.70
PCHP64NF-330_-RC	33	K, L, M, N	1	145	1.80	1.50	2.50	2.10
PCHP64NF-470_-RC	47	K, L, M, N	1	200	1.60	1.20	2.00	1.75
PCHP64NF-560_-RC	53	K, L, M, N	1	230	1.40	1.00	1.80	1.65
PCHP64NF-680_-RC	68	K, L, M, N	1	305	1.10	0.92	1.60	1.52
PCHP64NF-820_-RC	82	K, L, M, N	1	365	0.98	0.88	1.50	1.40
PCHP64NF-101_-RC	100	K, L, M, N	1	456	0.92	0.82	1.33	1.25
PCHP64NF-121_-RC	120	K, L, M, N	1	500	0.85	0.79	1.20	1.10
PCHP64NF-151_-RC	150	K, L, M, N	1	626	0.75	0.70	1.10	1.00
PCHP64NF-181_-RC	180	K, L, M, N	1	745	0.68	0.60	1.00	0.90
PCHP64NF-221_-RC	220	K, L, M, N	1	900	0.60	0.50	0.88	0.77
PCHP64NF-331_-RC	330	K, L, M, N	1	1400	0.55	0.45	0.60	0.55
PCHP64NF-471_-RC	470	K, L, M, N	1	2050	0.40	0.35	0.50	0.45

*Enter desired tolerance designator: K=±10%, L=±15%, M=±20%, N=±30%
All specifications subject to change without notice.



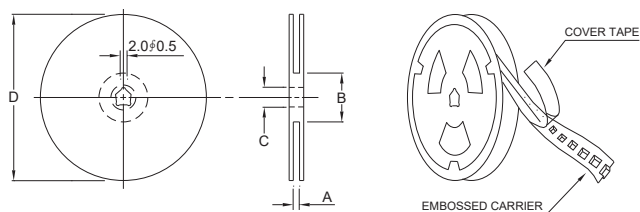
Typical Performance Curves





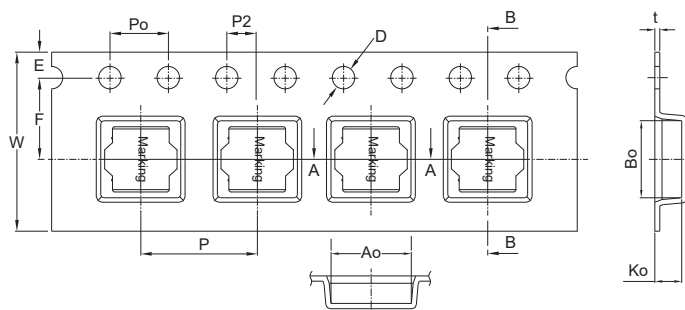
Packaging Information

Reel Dimension



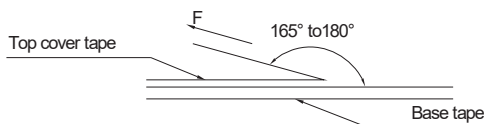
Type	A(mm)	B(mm)	C(mm)	D(mm)
330x16mm	16.4+2/-0	80±2.0	13+0.5/-0.2	330±3.0

Tape Dimension



Bo(mm)	Ao(mm)	Ko(mm)	P(mm)	W(mm)	t(mm)	E(mm)	F(mm)	D(mm)	Po(mm)	P2(mm)
6.4±0.1	6.4±0.1	4.7±0.1	12.0±0.1	16±0.3	0.4±0.1	1.75±0.1	7.5±0.1	1.5±0.1	4.0±0.1	2.00±0.1

Tearing Off Force



The force for tearing off cover tape is 10 to 130 grams in the arrow direction under the following conditions. (Referenced ANSI/EIA-481-C-2003 of 4.11 standard)

Room Temp. (°C)	Room Humidity (%)	Room atm (hPa)	Tearing Speed mm/min
5~35	45~85	860~1060	300

Application Notice

• Storage Conditions

To maintain the solderability of terminal electrodes:

1. PCHP64NF Series meets IPC/JEDEC J-STD-020D standard-MSL, level 1.
2. Temperature and humidity conditions: Less than 40°C and 60% RH.
3. Recommended products should be used within 12 months form the time of delivery.
4. The packaging material should be kept where no chlorine or sulfur exists in the air.

• Transportation

1. Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
2. The use of tweezers or vacuum pick up is strongly recommended for individual components.
3. Bulk handling should ensure that abrasion and mechanical shock are minimized.