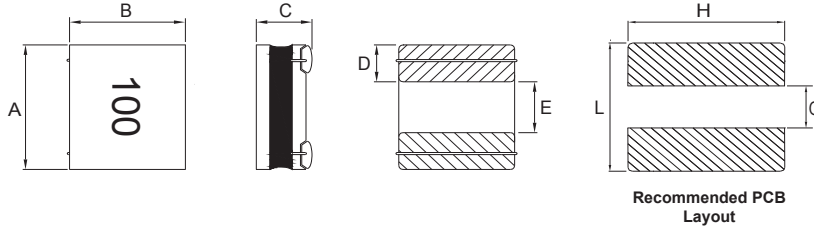




SMD SHIELDED POWER CHIP INDUCTOR

PCHP20CF

Dimensions:  $\frac{\text{Inches}}{\text{(mm)}}$



Recommended PCB Layout

A	B	C	D	E
.079-.004/+0.008 (2.0-0.1/+0.25)	.063-.004/+0.008 (1.6-0.1/+0.2)	.039 (1.0) Max	.024 (0.6) Ref	.032 (0.8) Ref

L	G	H
.095 (2.4)	.032 (0.8)	.071 (1.8)



Allied Part Number	Inductance (μH)	Tolerance (%)	Test Freq. (MHz, 0.1V)	DCR (Ω) ±20%	Isat (A) Typ	Isat (A) Max	Irms (A) Typ	Irms (A) Max
PCHP20CF-R47N-RC	.47	30	1	.044	3.00	2.70	2.60	2.35
PCHP20CF-R68N-RC	.68	30	1	.062	2.45	2.00	2.25	2.05
PCHP20CF-1R0N-RC	1.0	30	1	.080	1.95	1.80	1.75	1.60
PCHP20CF-1R5N-RC	1.5	30	1	.130	1.65	1.46	1.40	1.26
PCHP20CF-2R2M-RC	2.2	20	1	.145	1.45	1.26	1.35	1.20
PCHP20CF-3R3M-RC	3.3	20	1	.245	1.05	0.90	1.05	0.95
PCHP20CF-4R7M-RC	4.7	20	1	.360	0.85	0.77	1.00	0.96
PCHP20CF-6R8M-RC	6.8	20	1	.500	0.80	0.72	0.70	0.55
PCHP20CF-100M-RC	10	20	1	.720	0.62	0.55	0.50	0.45
PCHP20CF-150M-RC	15	20	1	1.40	0.50	0.45	0.40	0.36
PCHP20CF-180M-RC	18	20	1	1.80	0.45	0.40	0.38	0.34
PCHP20CF-220M-RC	22	20	1	2.00	0.43	0.38	0.30	0.27

All specifications subject to change without notice.

**Features**

- Magnetically Shielded Construction
- Low Profile
- Low DC Resistance

**Electrical**

**Inductance Range:** .47 - 22μH

**Tolerance:** 30% .47 - 1.5μH, 20% 2.2 - 22μH

**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 (ΔT = 40°C) from 25°C ambient.

**Resistance to Soldering Heat**

**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

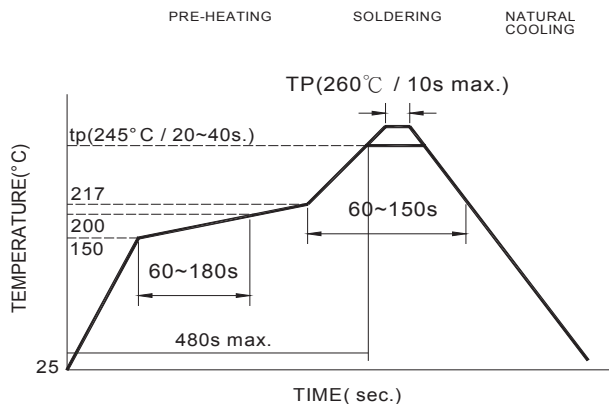
**(DCR):** CH16502, Agilent 33420A Micro-oHm Meter

**Physical**

**Packaging:** 2000 per 7" Reel

**Marking:** EIA Code

**Reflow Soldering**

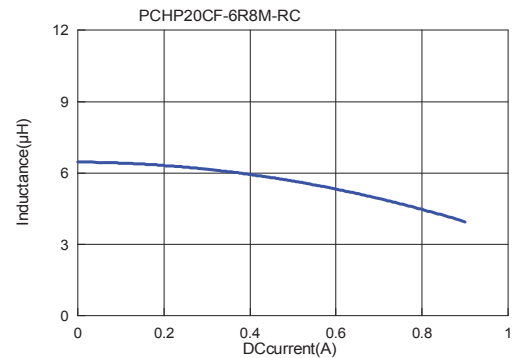
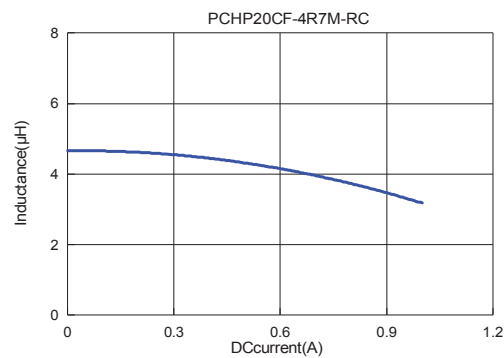
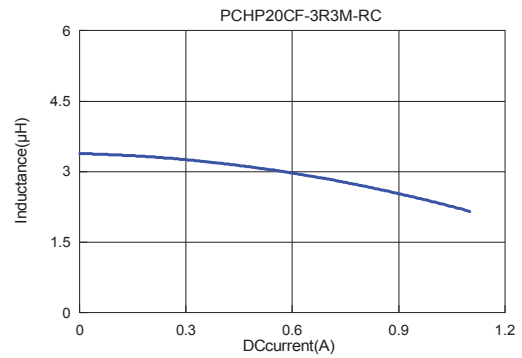
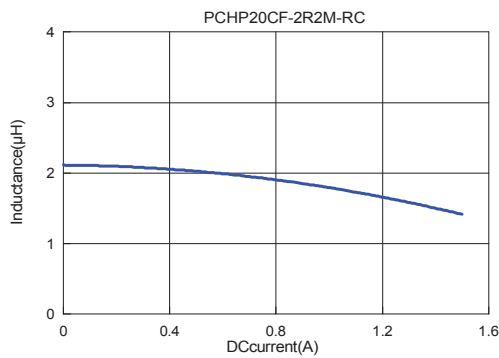
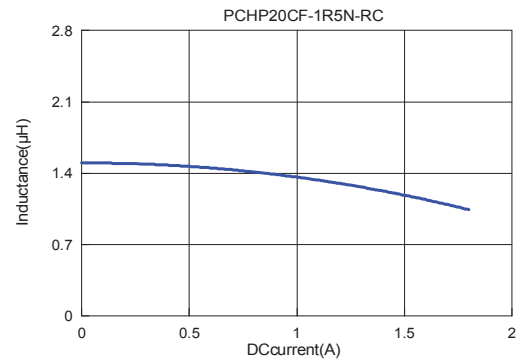
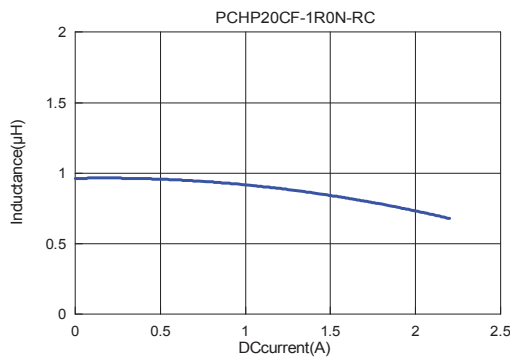
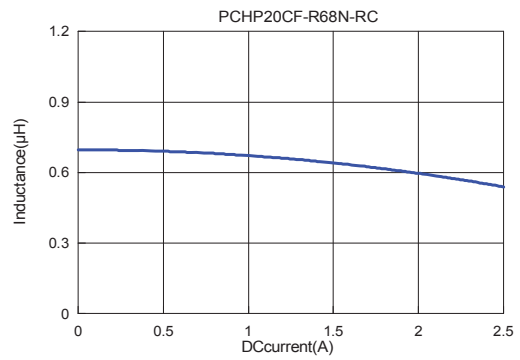
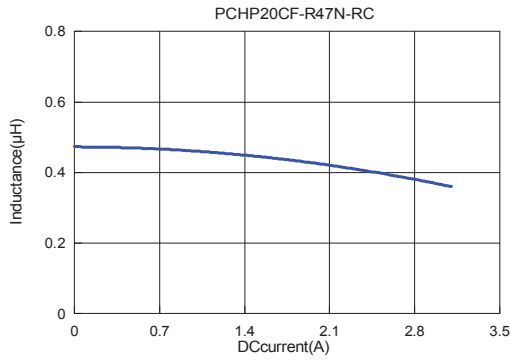


Reflow times: 3 times max.



# SMD SHIELDED POWER CHIP INDUCTOR PCHP20CF

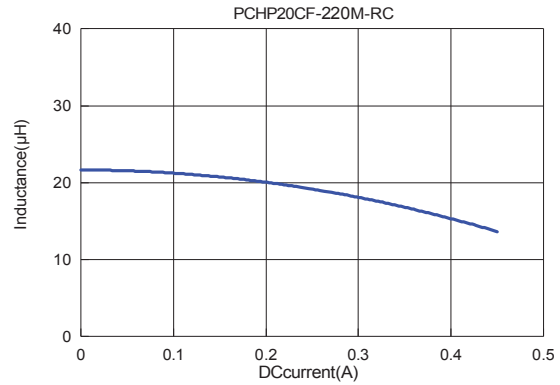
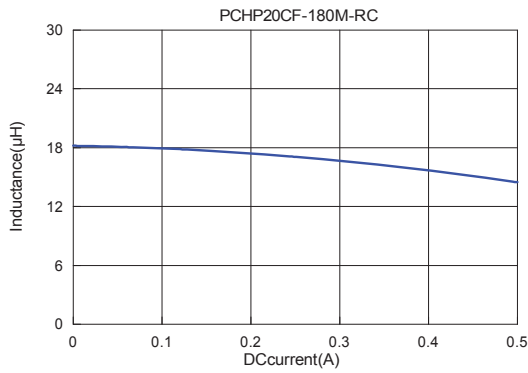
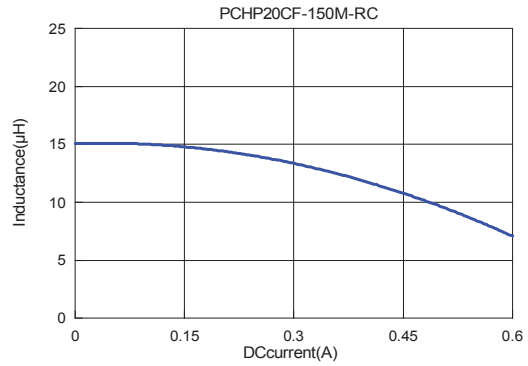
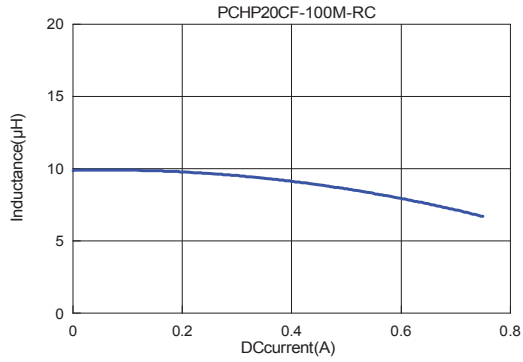
## Typical Performance Curve





SMD SHIELDED POWER CHIP INDUCTOR **PCHP20CF**

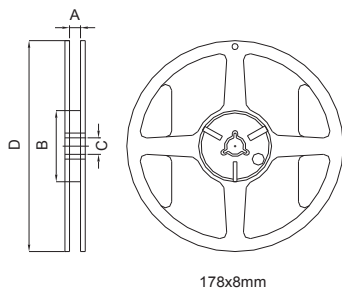
Typical Performance Curve





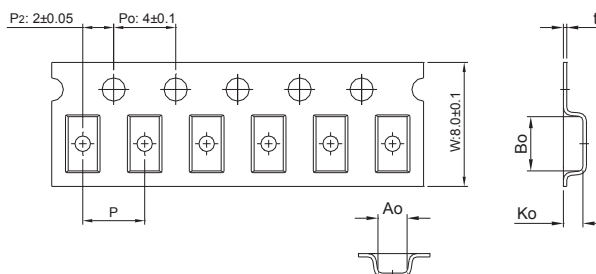
## Packaging Information

### Reel Dimension



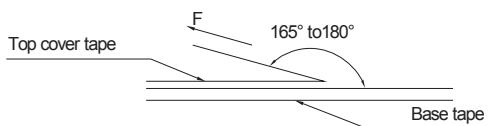
Type	A(mm)	B(mm)	C(mm)	D(mm)
178x8mm	8.4±1.0	50 Min	13±0.8	178±2.0

### Tape Dimension



Bo(mm)	Ao(mm)	Ko(mm)	P(mm)	t(mm)
2.5±0.1	2.0±0.1	1.05±0.1	4.0±0.1	0.23±0.05

### Tearing Off Force



The force for tearing off cover tape is 15 to 80 grams in the arrow direction under the following conditions.

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. PCHP20CF 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 from 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.