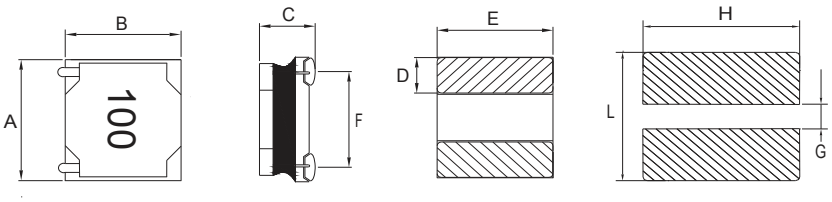
RoHS

SMD SHIELDED POWER CHIP INDUCTOR PCHP32

Dimensions: Inches / (mm)



Recommended PCB Layout

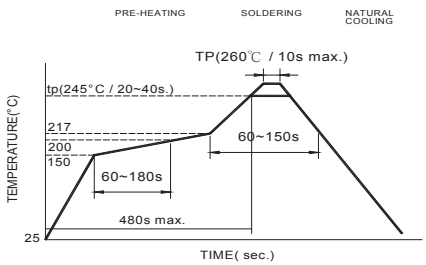
A	B	C	D	E
.118±.008 (3.0±0.2)	.118±.008 (3.0±0.2)	.059 (1.5) Max	.039 (1.0) Ref	.039 (1.0) Ref

L	G	H
.126 (3.2)	.039 (1.0)	.126 (3.2)

Allied Part Number	Inductance (µH)	Tolerance (%)	Test Freq. (KHz @1V)	SRF (MHz) Min	DCR (Ω) ±20%	Isat (A) Max	Irms (A) Max
PCHP32-1R0N-RC	1.0	30	100	100	0.03	2.20	2.20
PCHP32-1R5N-RC	1.5	30	100	87	0.04	2.00	2.00
PCHP32-2R2M-RC	2.2	20	100	64	0.06	1.70	1.70
PCHP32-3R3M-RC	3.3	20	100	49	0.08	1.40	1.40
PCHP32-4R7M-RC	4.7	20	100	40	0.12	1.20	1.20
PCHP32-6R8M-RC	6.8	20	100	36	0.16	1.00	1.00
PCHP32-100M-RC	10	20	100	28	0.22	0.75	0.80
PCHP32-150M-RC	15	20	100	23	0.32	0.65	0.70
PCHP32-220M-RC	22	20	100	20	0.46	0.55	0.60
PCHP32-330M-RC	33	20	100	18	0.80	0.40	0.45
PCHP32-470M-RC	47	20	100	17	1.20	0.35	0.40

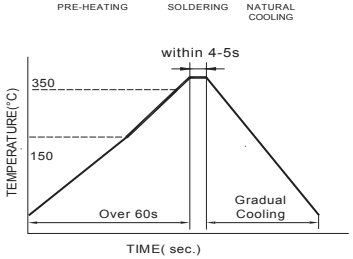
All specifications subject to change without notice.

Reflow Soldering



Reflow times: 3 times max.

Iron Soldering



Reflow times: 1 time max.

Features

- Magnetically Shielded Construction
- Low Profile
- Low DC Resistance

Electrical

Inductance Range: 1.0 - 47µH
Tolerance: 30% 1.0-1.5µH, 20% 2.2-47µH
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

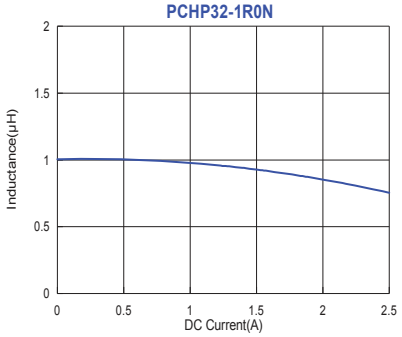
(L): HP4284A, CH11025, CH3302, CH1320S LCR Meter
(DCR): CH16502, Agilent 33420A Micro-oHm Meter

Physical

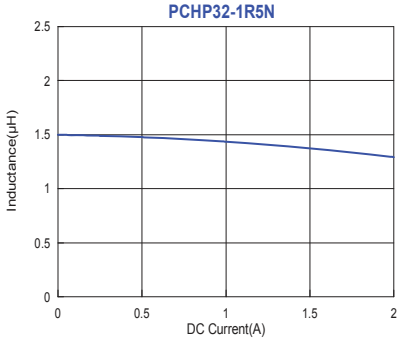
Packaging: 2000 per 13" Reel
Marking: EIA Code

Typical Performance Curve

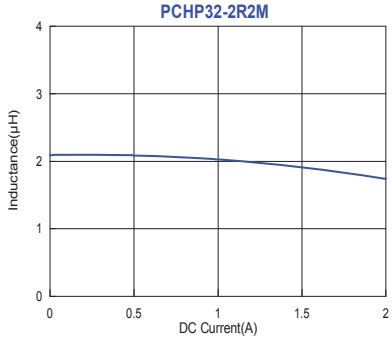
PCHP32-1R0N



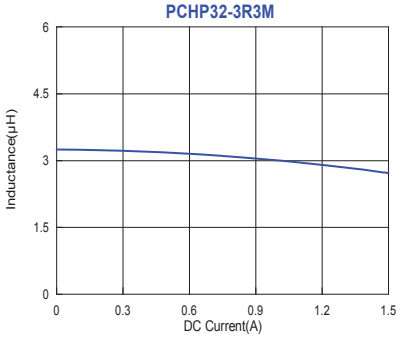
PCHP32-1R5N



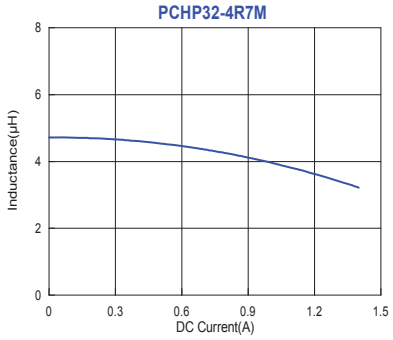
PCHP32-2R2M



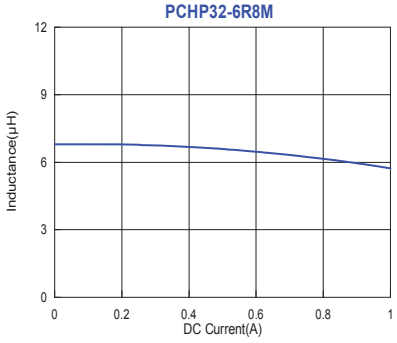
PCHP32-3R3M



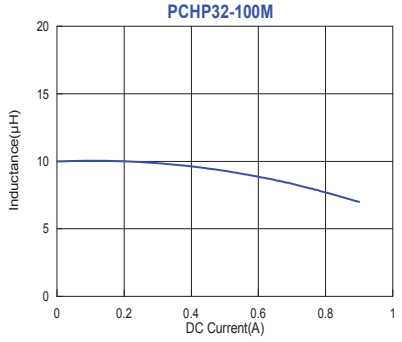
PCHP32-4R7M



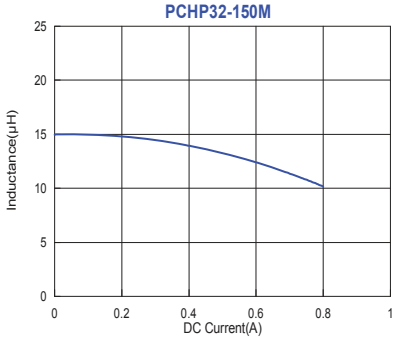
PCHP32-6R8M



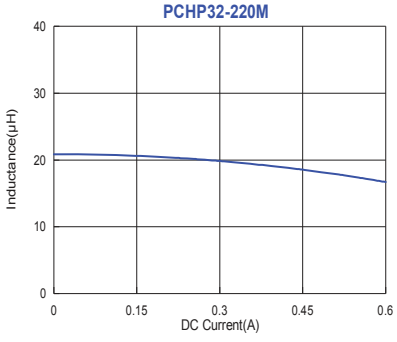
PCHP32-100M



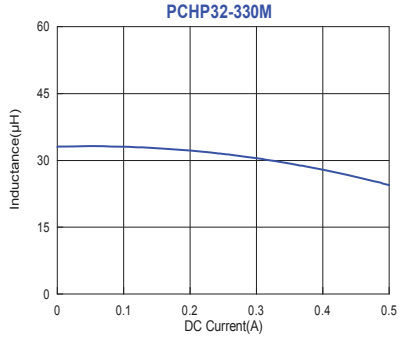
PCHP32-150M



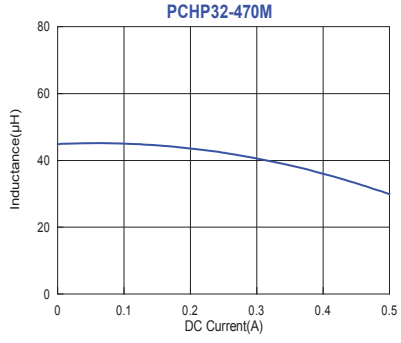
PCHP32-220M



PCHP32-330M

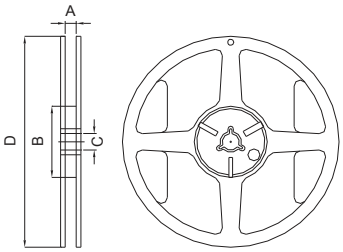


PCHP32-470M



Packaging Information

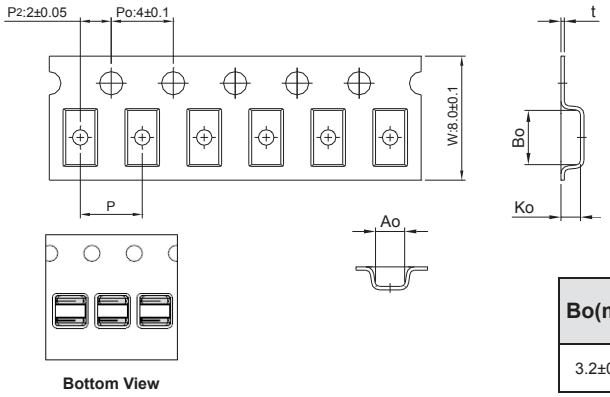
Reel Dimension



178x8mm

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

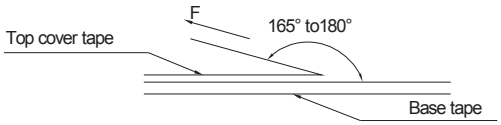
Tape Dimension



Bottom View

Bo(mm)	Ao(mm)	Ko(mm)	P(mm)	t(mm)
3.2±0.05	3.2±0.05	1.7±0.2	4.0±0.05	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. (℃)	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. PCHP32 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.