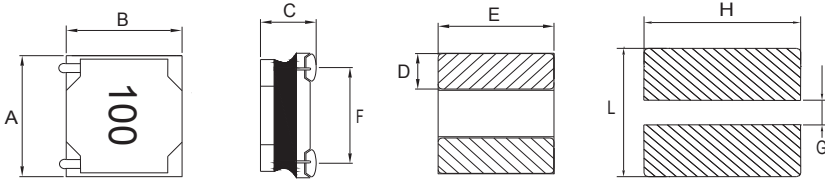




SMD SHIELDED POWER CHIP INDUCTOR

PCHP32

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



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.

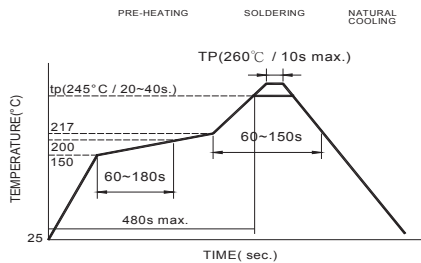
**Features**

- Magnetically Shielded Construction
- Low Profile
- Low DC Resistance

**Electrical**

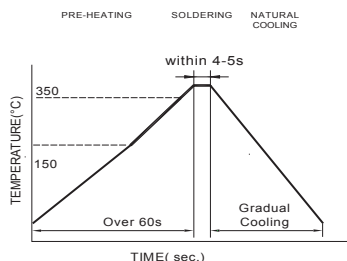
**Inductance Range:** 1.0 - 47μH  
**Tolerance:** 30% 1.0-1.5μH, 20% 2.2-47μH  
**Operating Temp:** -40°C to +125°C  
**MSL:** Level 1  
**Isat:** DC current at which the inductance drops approximately 30% from its value without current.  
**Irms:** DC current that causes the temperature rise (ΔT = 40°C) from 25°C ambient.

**Reflow Soldering**



Reflow times: 3 times max.

**Iron Soldering**



Reflow times: 1 time max.

**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**

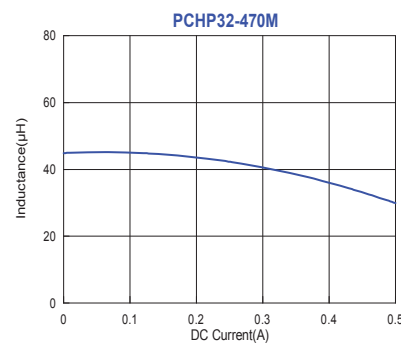
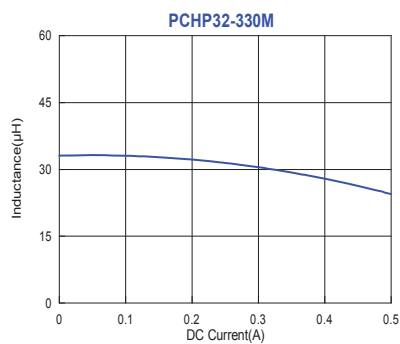
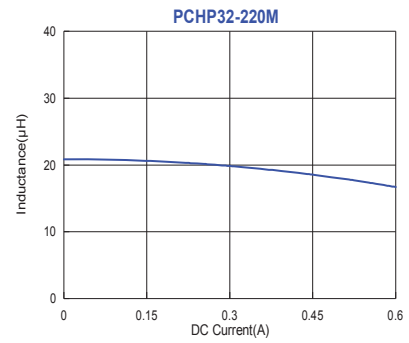
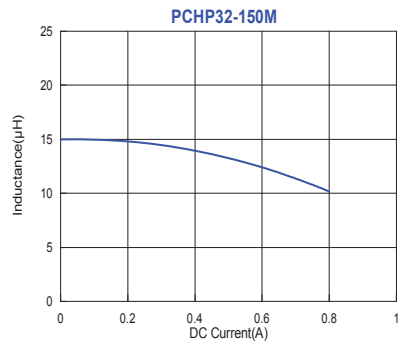
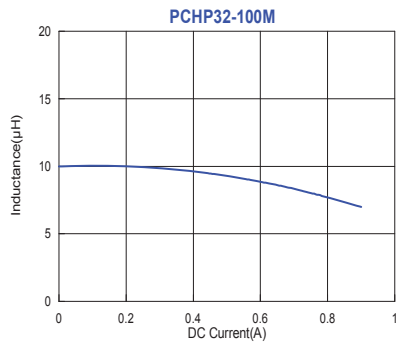
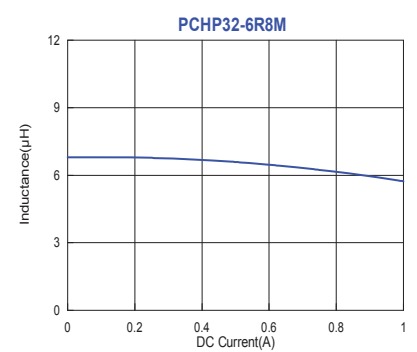
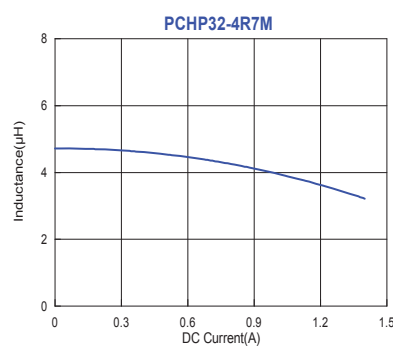
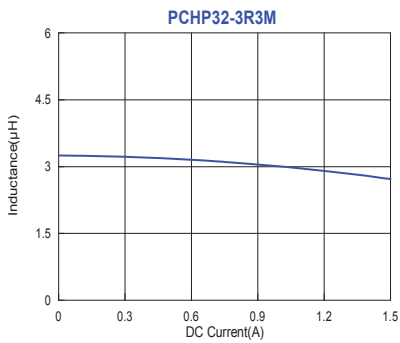
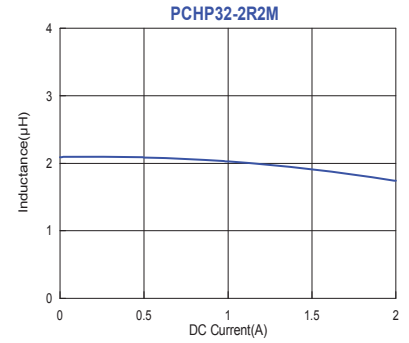
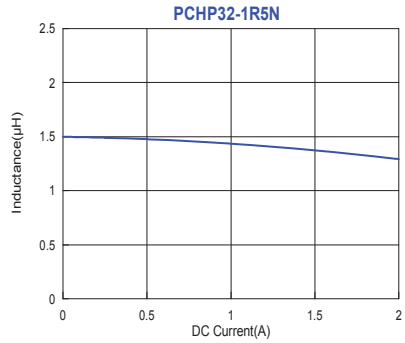
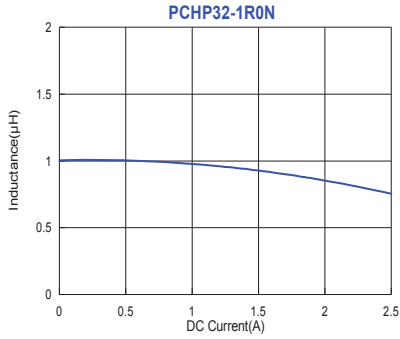
**(L):** HP4284A, CH11025, CH3302, CH1320S  
 LCR Meter  
**(DCR):** CH16502, Agilent 33420A Micro-ohm Meter

**Physical**

**Packaging:** 2000 per 13" Reel  
**Marking:** EIA Code



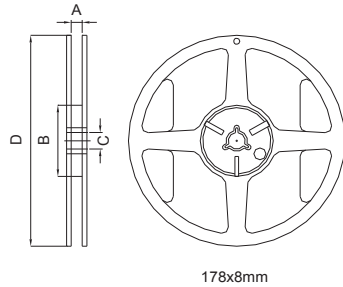
Typical Performance Curve





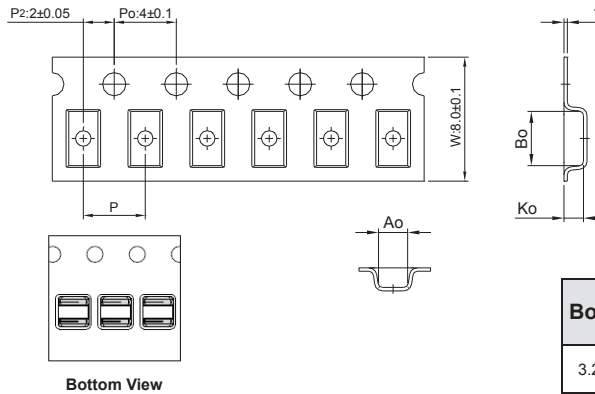
Packaging Information

Reel Dimension



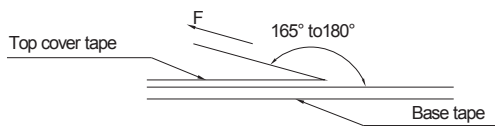
Type	A(mm)	B(mm)	C(mm)	D(mm)
178x8mm	8.4±1.0	50 Min	13±0.8	178±2.0

Tape Dimension



Bo(mm)	Ao(mm)	Ko(mm)	P(mm)	t(mm)
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. (°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. 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 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.