

## Surface Mount Unshielded Power Inductors

### ■ Drum Ni-Zn Core Surface Mount Unshielded Power Inductors CHCPW Series (DR 鐵芯表面接著型開磁式功率電感-----CHCPW 系列)



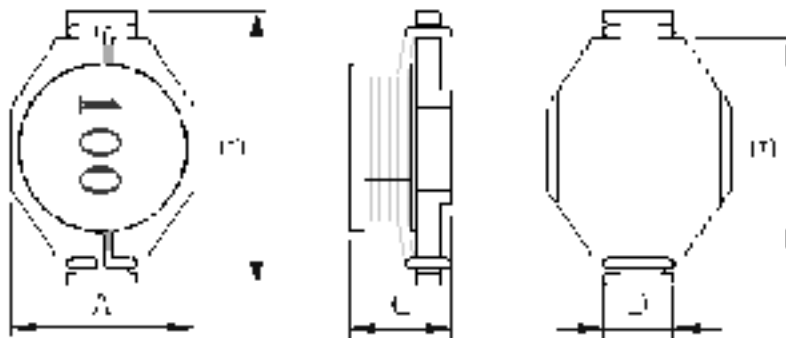
#### ●Features(特徵):

1. Low cost, high performance inductor. (低成本高表現之電感。)
2. Super low resistance with high current rating. (超低的電阻及高額定電流。)

#### ●Applications應用):

Excellent as DC-DC Converter used in notebook computers, PDA, step up or step down converters.  
適合用於筆記型電腦、增壓或降壓整流器中直流-直流的整流器。

#### ●Shape & Dimensions(外觀呎吋):



Series Number	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
CHCPW1813	6.10 Max	8.89 Max	5.00 Max	2.03 ± 0.25	6.35 Min
CHCPW3316	9.91 Max	11.68 Max	6.35 Max	3.12 ± 0.25	9.14 Min
CHCPW5022	16.26 Max	22.35 Max	8.00 Max	8.64 ± 0.25	14.25 Max

#### ●Specification(規格):

##### ◆CHCPW1813 Series:

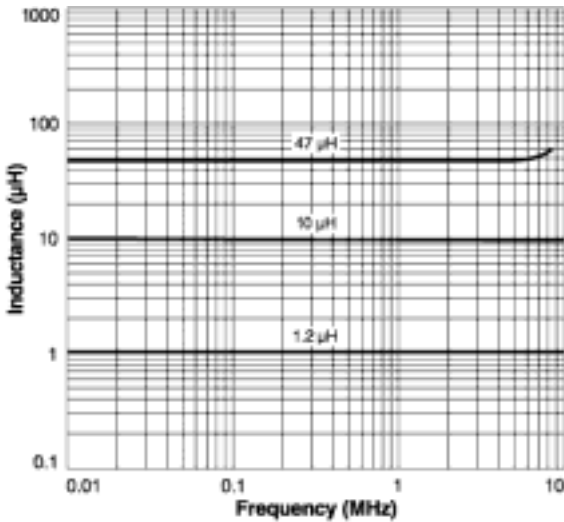


- 1, smallest high current inductor - only 6.1 x 8.9 x 5.0 high.
- 2, Very high current ratings - up to 10 Arms; 14.0 A saturating current!
- 3, Exceptionally low DC resistance thanks to the use of heavier gauge wire.
- 4, Flat top and self-ledged design for reliable surface mounting.
- 5, Robust temperature deflection prevents damage during solder reflow.

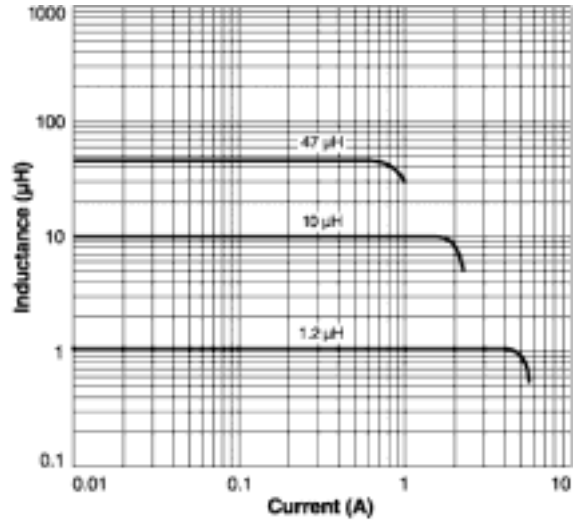
Part Number	Inductance (μH)	Test Frequency (Hz)	DC Resistance (Ω) Max	SRF (MHz) Typ	I rms (A)	I sat (A)
CHCPW1813-R18M	0.18±20%	100 KHz/0.25 V	0.003	800	14.0	10.0
CHCPW1813-R33M	0.33±20%	100 KHz/0.25 V	0.004	600	10.0	7.0
CHCPW1813-R56M	0.56±20%	100 KHz/0.25 V	0.010	200	7.7	6.0
CHCPW1813-1R2M	1.2±20%	100 KHz/0.25 V	0.017	140	5.3	4.4
CHCPW1813-2R2M	2.2±20%	100 KHz/0.25 V	0.035	100	3.5	3.1
CHCPW1813-3R3M	3.3±20%	100 KHz/0.25 V	0.040	80	3.0	2.7
CHCPW1813-4R7M	4.7±20%	100 KHz/0.25 V	0.054	50	2.6	2.2
CHCPW1813-6R8M	6.8±20%	100 KHz/0.25 V	0.08	45	2.2	1.8
CHCPW1813-100M	10±20%	100 KHz/0.25 V	0.11	40	1.9	1.5
CHCPW1813-150M	15±20%	100 KHz/0.25 V	0.17	30	1.5	1.2
CHCPW1813-220M	22±20%	100 KHz/0.25 V	0.25	25	1.2	1.0
CHCPW1813-330M	33±20%	100 KHz/0.25 V	0.35	20	0.99	0.82
CHCPW1813-470M	47±20%	100 KHz/0.25 V	0.47	15	0.87	0.72

# Surface Mount Unshielded Power Inductors

## ◆ Inductance vs. Frequency



## ◆ Inductance vs. Current



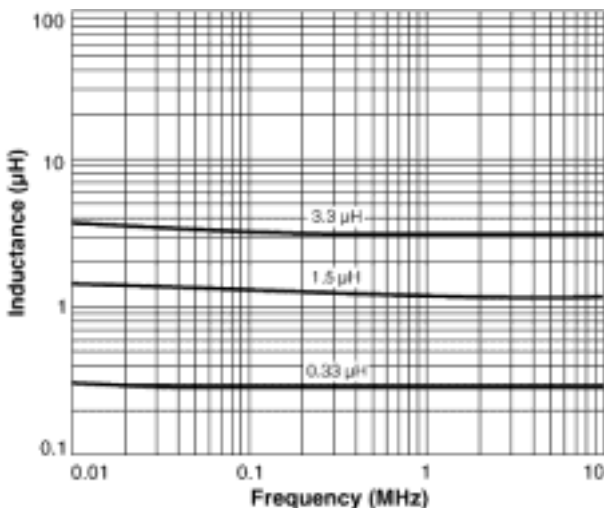
## ◆ CHCPW3316 Series:



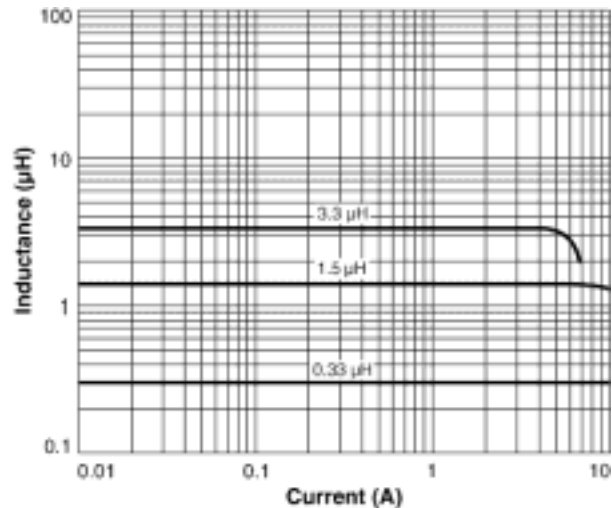
- 1, Very high current ratings - up to 17 Arms; 28 A saturating current!
- 2, Low profile and small footprint - only 12.9 x 9.4 x 6.4 high
- 3, Exceptionally low DC resistance thanks to the use of heavier gauge wire
- 4, Flat top and self-led design for reliable surface mounting
- 5, Robust temperature deflection prevents damage during solder reflow

Part Number	Inductance ( $\mu$ H)	Test Frequency (Hz)	SRF (MHz) Typ	DC Resistance ( $\Omega$ ) Max	I rms (A)	I sat (A)
CHCPW3316-R12M	0.12 $\pm$ 20%	100 KHz/0.1V	200.0	0.0015	28.0	17.0
CHCPW3316-R33M	0.33 $\pm$ 20%	100 KHz/0.1V	200.0	0.0020	20.0	16.0
CHCPW3316-R68M	0.68 $\pm$ 20%	100 KHz/0.1V	200.0	0.0050	13.0	12.0
CHCPW3316-1R0M	1.0 $\pm$ 20%	100 KHz/0.1V	100.0	0.0060	11.0	10.0
CHCPW3316-1R5M	1.5 $\pm$ 20%	100 KHz/0.1V	90.0	0.0080	9.0	9.0
CHCPW3316-2R2M	2.2 $\pm$ 20%	100 KHz/0.1V	80.0	0.01	7.8	7.4
CHCPW3316-2R7M	2.7 $\pm$ 20%	100 KHz/0.1V	65.0	0.0120	7.0	6.6
CHCPW3316-3R3M	3.3 $\pm$ 20%	100 KHz/0.1V	60.0	0.0140	6.4	5.9
CHCPW3316-3R9M	3.9 $\pm$ 20%	100 KHz/0.1V	50.0	0.0150	5.9	5.3
CHCPW3316-4R7M	4.7 $\pm$ 20%	100 KHz/0.1V	45.0	0.0180	5.4	4.8

## ◆ Inductance vs. Frequency



## ◆ Inductance vs. Current



## Surface Mount Unshielded Power Inductors

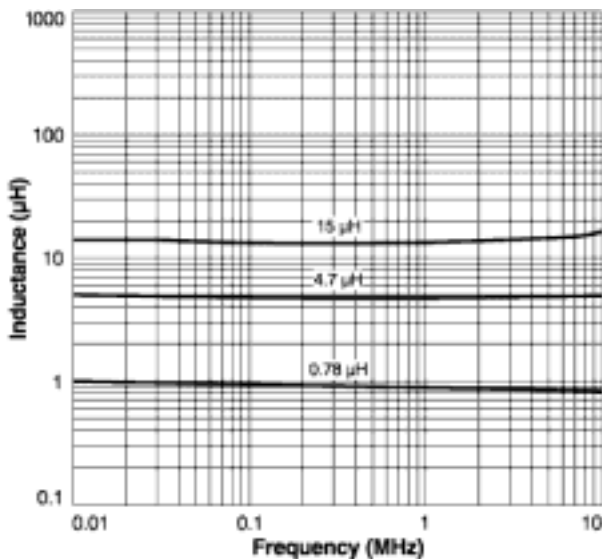
### ◆CHCPW5022 Series:



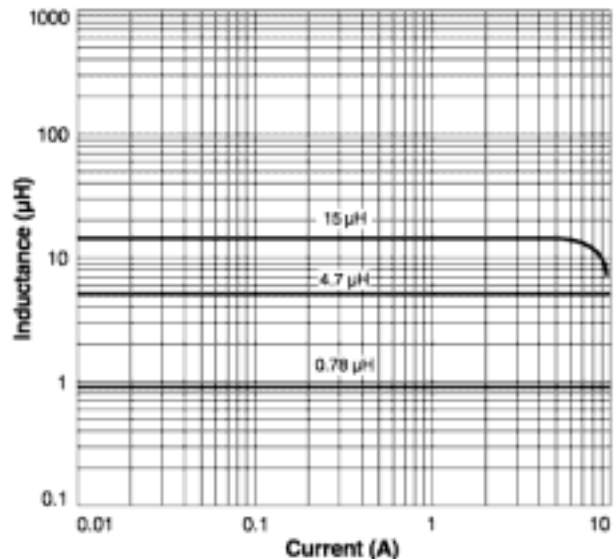
- 1, Very high current ratings - up to 15 Arms, 30 A saturating current!
- 2, Exceptionally low DC resistance thanks to the use of heavier gauge wire.
- 3, Flat top and self-led design for reliable surface mounting.
- 4, Robust temperature deflection prevents damage during solder reflow.

Part Number	Inductance ( $\mu$ H)	Test Frequency (Hz)	SRF (MHz) Typ	DC Resistance ( $m\Omega$ ) Max	I rms (A)	I sat (A)
CHCPW5022-R78M	0.78 $\pm$ 20%	100 KHz/0.1V	156	2.6	30	15
CHCPW5022-1R5M	1.5 $\pm$ 20%	100 KHz/0.1V	100	4.0	25	15
CHCPW5022-2R2M	2.2 $\pm$ 20%	100 KHz/0.1V	75	6.1	20	12
CHCPW5022-3R3M	3.3 $\pm$ 20%	100 KHz/0.1V	60	8.6	17	10
CHCPW5022-3R9M	3.9 $\pm$ 20%	100 KHz/0.1V	55	10	15	9
CHCPW5022-4R7M	4.7 $\pm$ 20%	100 KHz/0.1V	40	14	13	8.4
CHCPW5022-6R0M	6.0 $\pm$ 20%	100 KHz/0.1V	35	17	12	7.5
CHCPW5022-7R8M	7.8 $\pm$ 20%	100 KHz/0.1V	35	18	11	7.5
CHCPW5022-100M	10 $\pm$ 20%	100 KHz/0.1V	28	26	10	6.0
CHCPW5022-150M	15 $\pm$ 20%	100 KHz/0.1V	20	32	8	4.4

### ◆Inductance vs. Frequency



### ◆Inductance vs. Current



Other non standard Inductance value are available to meet your exact requirements.

- Note:
1. Inductance measured by LCR Meter HP 4284A.
  2. DC Resistance measured by Milliohm meter HP4338B.
  3. SRF measured by Network analyzer HP 4294/HP4291.
  4. SRF is for reference only.
  5. Temperature rise=40°C max at I rms.
  6.  $\Delta L/L0A=10\%$  typical at I sat
  7. Operating temperature range -40°C to +85°C