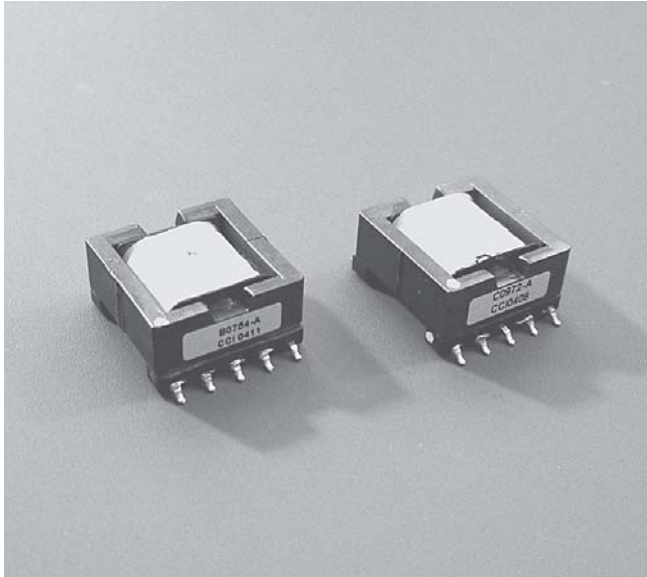




# SMT Power Magnetics

For ON Semiconductor  
NCP1216A Controller



Coilcraft's C0972-AL transformer and B0754-AL inductor were developed specifically for the ON Semiconductor NCP1216A PWM Current-Mode Controller.

They are specified in application note AND8161/D along with Coilcraft's DS3316P-103 and DS3316P-102 shielded inductors. Refer to the separate data sheet for additional information about the DS3316 Series of inductors

The C0972-AL features very low DCR, excellent leakage inductance and 1500 V Isolation from the primary and auxiliary windings to the secondary.

The B0754-AL is the output inductor and features four separate windings connected in parallel to minimize power losses and to limit temperature rise.

To request free evaluation samples, contact Coilcraft or visit [www.coilcraft.com](http://www.coilcraft.com).

## C0972-AL Transformer

Part number <sup>1</sup>	Output power (W)	Input voltage range (V)	Output voltage (V)	Output current (A rms)	Primary inductance <sup>2</sup> min (mH)	Leakage inductance <sup>3</sup> max ( $\mu$ H)	DCR max (Ohms)	Turns ratio pri : sec pri: reset
C0972-AL_	60	36 – 75	12	5.0	0.817	1.50	0.056 (pri) 0.031 (sec) 0.480 (aux)	1 : 0.91 1 : 1

1. When ordering, please specify **packaging** code:

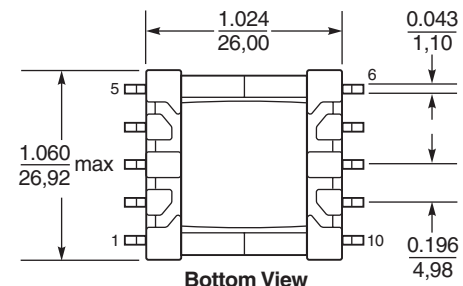
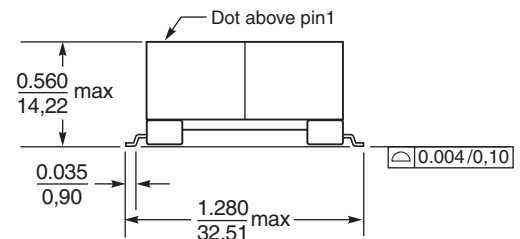
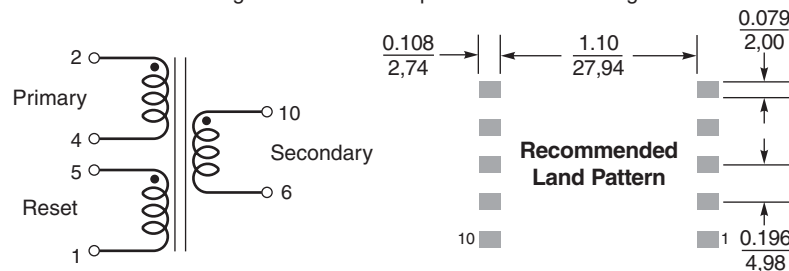
**C0972-AL D**

**Packaging:** D = 13" machine-ready reel. EIA-481 embossed plastic tape (50 parts per full reel).

B = Less than full reel. In tape, but not machine ready. To have a leader and trailer added (\$25 charge), use code letter D instead.

- Inductance measured between pins 2 and 4 at 10 kHz, 0.1 V, 0 Adc.
- Leakage inductance measured between pins 2 and 4 at 100 kHz, 0.1 V, 0 Adc with all other pins shorted.
- Operating temperature range:  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ .
- Electrical specifications at  $25^{\circ}\text{C}$ .

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



**Weight:** 28.2 g

**Terminations:** Tin-silver over tin over nickel over phos bronze

**Tape and reel:** 50/13" reel, 56 mm tape width

For packaging data see Tape and Reel Specifications section.

**Coilcraft**<sup>®</sup>

Specifications subject to change without notice.  
Please check our website for latest information.

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# SMT Power Magnetics for ON Semiconductor NCP1216A

## B0754-AL Inductor

Part number <sup>1</sup>	Inductance <sup>2</sup> at 0 A ±10% (µH)	DCR max <sup>3</sup> (Ohms)	Isat <sup>4</sup> (A)	I <sub>rms</sub> <sup>5</sup> (A)
B0754-AL_	100	0.282	8.0	4.8

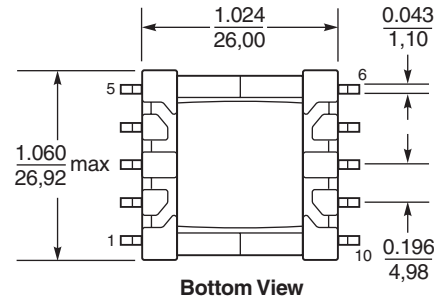
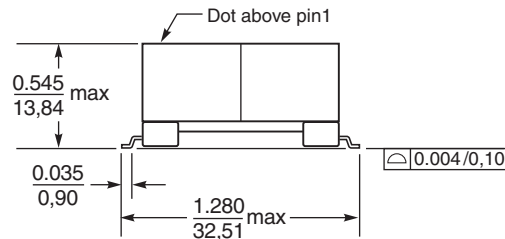
1. When ordering, please specify **packaging** code:

**B0754-AL D**

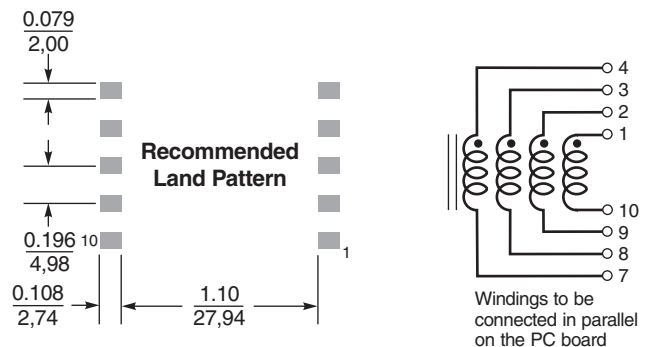
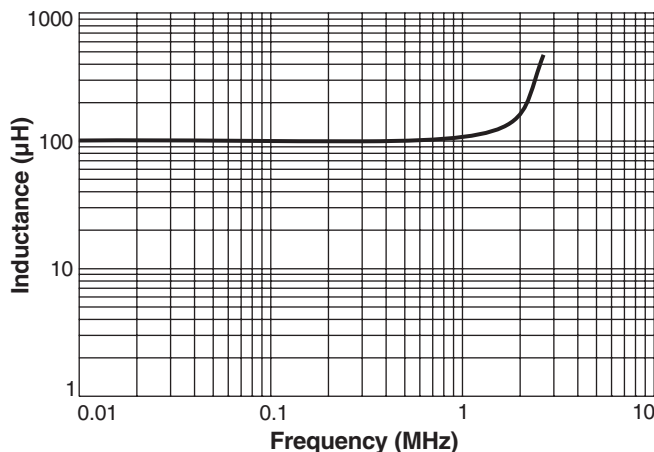
**Packaging:** D = 13" machine-ready reel. EIA-481 embossed plastic tape (50 parts per full reel).

B = Less than full reel. In tape, but not machine ready. To have a leader and trailer added (\$25 charge), use code letter D instead.

- Inductance measured at 10.0 kHz, 0.1 V<sub>rms</sub>.
  - DCR is per winding.
  - Current at which inductance drops 10% (typ) from its value without current.
  - Average current for a 40°C temperature rise above 25°C ambient.
  - Operating temperature range -40°C to +85°C.
  - Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

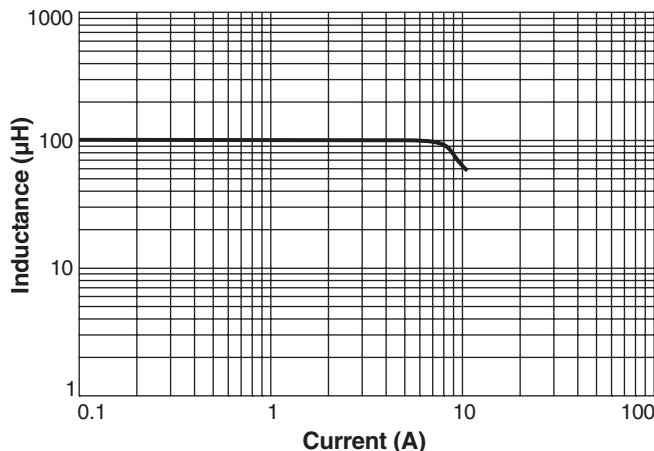


### Typical L vs Frequency

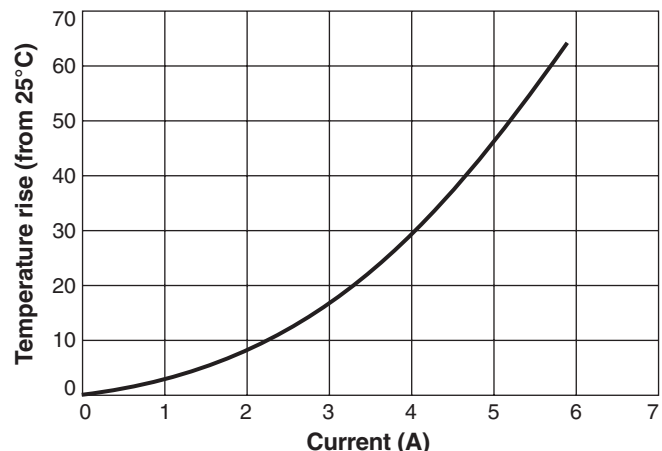


**Weight:** 27.4 g  
**Terminations:** Tin-silver over tin over nickel over phos bronze  
**Tape and reel:** 50/13" reel, 56 mm tape width  
 For packaging data see Tape and Reel Specifications section.

### Typical L vs Current



### Temperature Rise vs Current



Specifications subject to change without notice.  
 Please check our website for latest information.

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