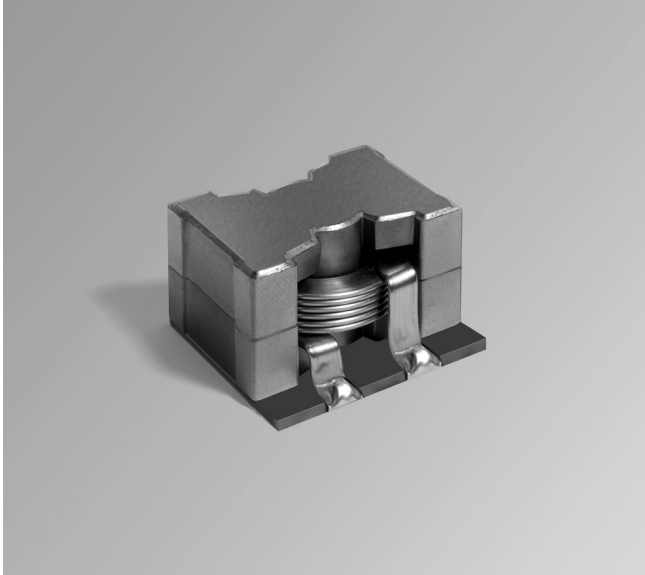


# Shielded Power Inductor

## For TI LM5118 buck-boost regulator



- High current power inductor with an Aux winding.
- Developed for use in high efficiency 4 switch buck-boost regulators with Texas Instruments LM5118

**Core material** Ferrite

**Environmental** RoHS compliant

**Terminations** Matte tin over nickel over phos bronze (L1),  
Matte tin over nickel over brass (Aux).

**Weight** 32 g

**Ambient temperature** -40°C to +85°C with Irms current, +85°C to +125°C with derated current

**Storage temperature** Component: -40°C to +125°C.  
Tray packaging: -40°C to +80°C

**Resistance to soldering heat** Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at <30°C / 85% relative humidity)

**Failures in Time (FIT) / Mean Time Between Failures (MTBF)**  
38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

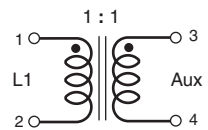
**Packaging** 25 pieces per tray

**PCB washing** Tested with pure water or alcohol only. For other solvents, see Doc787\_PCB\_Washing.pdf

Part number	Inductance <sup>1</sup> ±20% (µH)	DCR max (mOhms) <sup>2</sup>		SRF typ <sup>3</sup> (MHz)	Isat (A) <sup>4</sup>			Irms (A) <sup>5</sup>	
		L1	Aux		10% drop	20% drop	30% drop	20°C rise	40°C rise
NA5766-AL	10.0	2.12	12.0	15	18.0	21.5	23.4	20	30

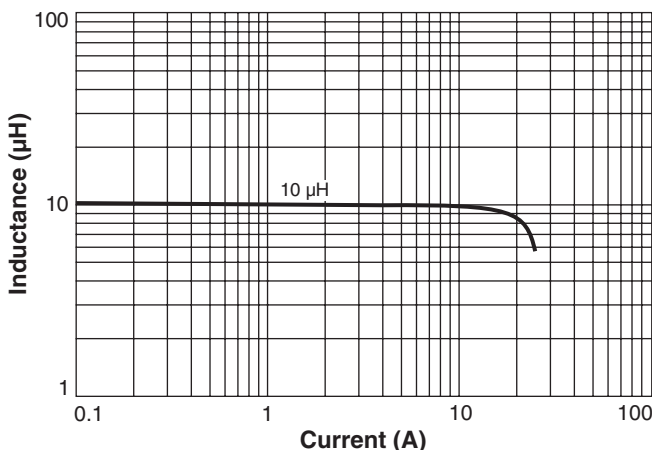
1. Inductance measured at 500 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4284A LCR meter or equivalent.
2. DCR measured on a Keithley 580 micro-ohmmeter or equivalent.
3. SRF measured using an Agilent/HP 4395A network analyzer and an Agilent/HP 16193A test fixture.
4. DC current at which the inductance drops the specified amount from its value without current.
5. Current that causes the specified temperature rise from 25°C ambient.
6. Electrical specifications at 25°C.

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

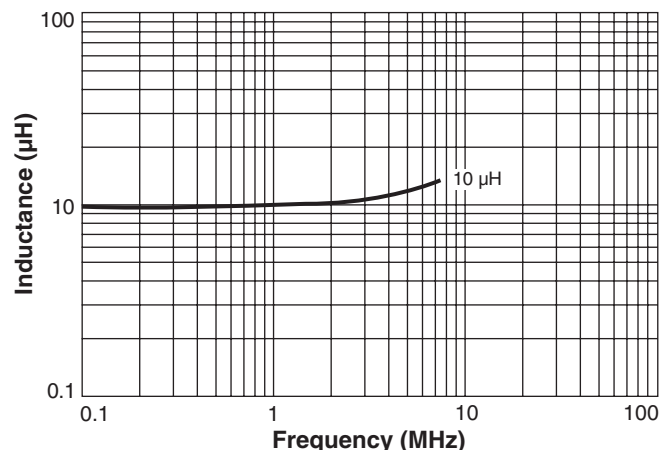


5 ○ For mounting stability only.  
Do not connect to ground or other circuits.

### L vs Current



### L vs Frequency



www.coilcraft.com

**US** +1-847-639-6400 sales@coilcraft.com  
**UK** +44-1236-730595 sales@coilcraft-europe.com  
**Taiwan** +886-2-2264 3646 sales@coilcraft.com.tw  
**China** +86-21-6218 8074 sales@coilcraft.com.cn  
**Singapore** + 65-6484 8412 sales@coilcraft.com.sg

Document 1028-1 Revised 10/23/12

© Coilcraft Inc. 2013

This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.