

Shielded Power Inductor For NSC LM315x SIMPLE SWITCHER®



Part number¹	Inductance ² ±20% (µH)				Irms ⁵ (A)
HA3778-AL_	1.65	2.53	55	17	20

1. When ordering, please specify termination and packaging codes:

HA3778-ALC

Termination: L

RoHS compliant tin-silver over copper. **Special order: T** = RoHS tin-silver-copper (95.5/4/0.5) or **S** = non-RoHS tin-lead (63/37).

- Packaging: C = 7" machine-ready reel. EIA-481 embossed plastic tape (100 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 C instead.
 - D = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (500 parts per
- 2. Inductance measured at 500 kHz, 0.1 Vrms, 0 Adc using a Coilcraft SMD-A fixture in an Agilent/HP 4284A LCR meter or equivalent.
- 3. SRF measured on an Agilent/HP 8753ES.
- 4. DC current at which the inductance drops 30% (typ) from its value without current.
- 5. Current that causes a 40°C temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.
- 6. Electrical specifications at 25°C.

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

- Designed specifically for National Semiconductor LM315x SIMPLE SWITCHER® Controllers for applications with output current up to 12 A.
- L1 on NSC Demonstration Board LM3152-3.3
- Soft saturation makes it ideal for use in multi-phase VRM/VRD regulators and high current/high frequency DC/DC converters.
- · Flat wire construction for low DCR
- The materials used eliminate all thermal aging issues

Core material Powdered iron

Terminations RoHS compliant tin-silver over copper. Other terminations available at additional cost.

Weight 3.44 g

Ambient temperature -40°C to +85°C with Irms current

Maximum part temperature +125°C (ambient + temp rise).

Storage temperature Component: -40°C to +125°C. Packaging: -40°C to +80°C

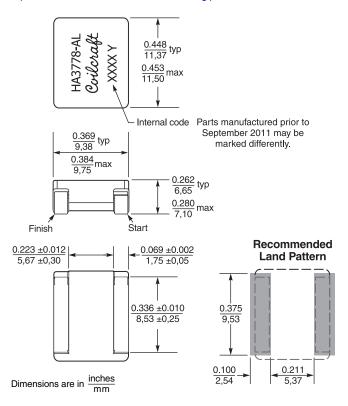
Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

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

Mean Time Between Failures (MTBF) 26,315,789 hours

Packaging 100/7" reel; 500/13" reel Plastic tape: 24 mm wide, 0.4 mm thick, 16 mm pocket spacing, 7.5 mm pocket depth

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.





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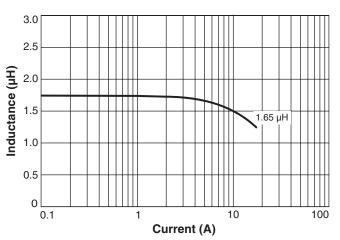
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Please check web site for latest information.

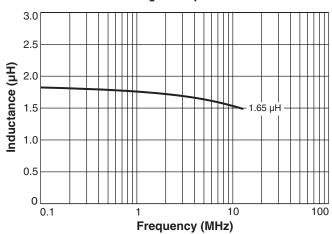


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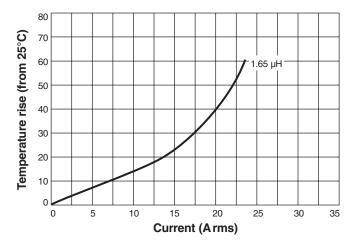
Inductance vs Current



Inductance vs Frequency



Temperature Rise vs Current





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