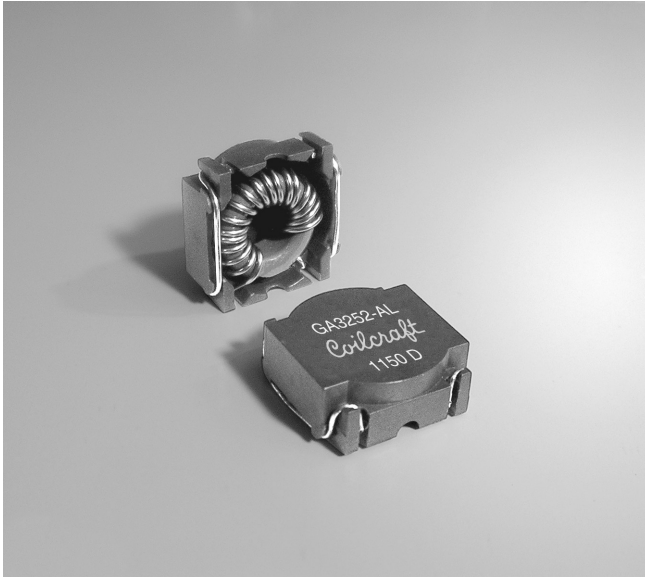




# Power Inductor – GA3252-AL

For National Semiconductor  
LM3433 LED Driver



- High current surface mount toroidal power inductor
- Specified by National Semiconductor for 2 A to 14 A output applications

**Core material** Ferrite

**Terminations** RoHS compliant tin-silver (96.5/3.5) over copper. Other terminations available at additional cost.

**Weight** 11.6 g

**Ambient temperature** –40°C to +85°C with  $I_{rms}$  current, +85°C to +125°C with derated current

**Storage temperature** Component: –40°C to +85°C.  
Tape and reel 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)

**Packaging** 200 per 13" reel Plastic tape: 44 mm wide, 0.5 mm thick, 32 mm pocket spacing, 10.4 mm pocket depth

**PCB washing** Only pure water or alcohol recommended

Part number <sup>1</sup>	Inductance <sup>2</sup> ±20% (µH)	DCR max <sup>3</sup> (Ohms)	SRF typ <sup>4</sup> (MHz)	Isat (A) <sup>5</sup>			Irms (A) <sup>6</sup>	
				10% drop	20% drop	30% drop	20°C rise	40°C rise
GA3252-AL_	12.0	0.017	20	6.5	8.0	13	6.5	10

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

**GA3252-ALD**

**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:** D = 13" machine-ready reel

EIA-481 embossed plastic tape (200 per full reel).

Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

**B** = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to D.

2. Inductance tested at 100 kHz, 0.1 Vrms on Agilent/HP 4192A.

3. DCR measured on a Keithley 580 micro-ohmmeter or equivalent.

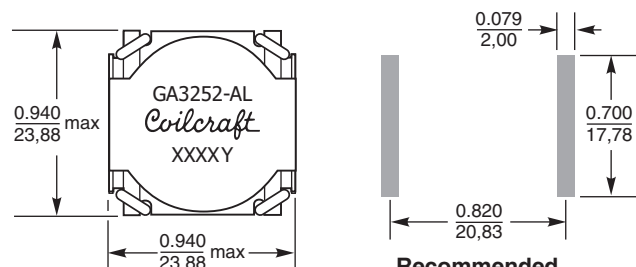
4. SRF measured on an Agilent/HP 8753ES network analyzer.

5. DC current at which the inductance drops the specified amount from its value without current.

6. Current that causes the specified temperature rise from 25°C ambient.

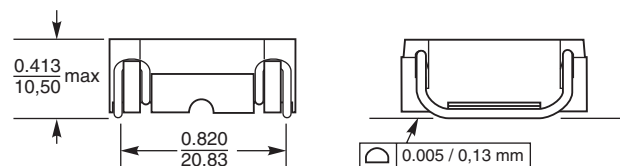
7. Electrical specifications at 25°C.

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



Parts manufactured prior to December 2011 may be marked differently.

**Recommended Land Pattern**



Dimensions are in  $\frac{\text{inches}}{\text{mm}}$



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 636-1 Revised 12/16/11

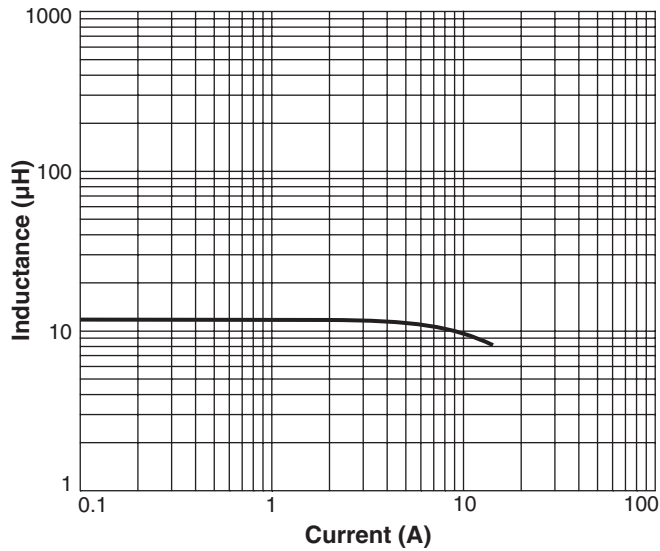
© Coilcraft Inc. 2021

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.

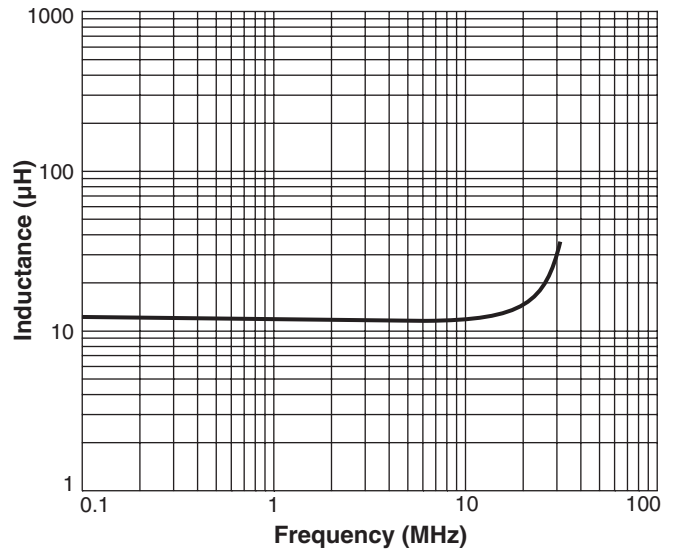


# Power Inductor - GA3252-AL

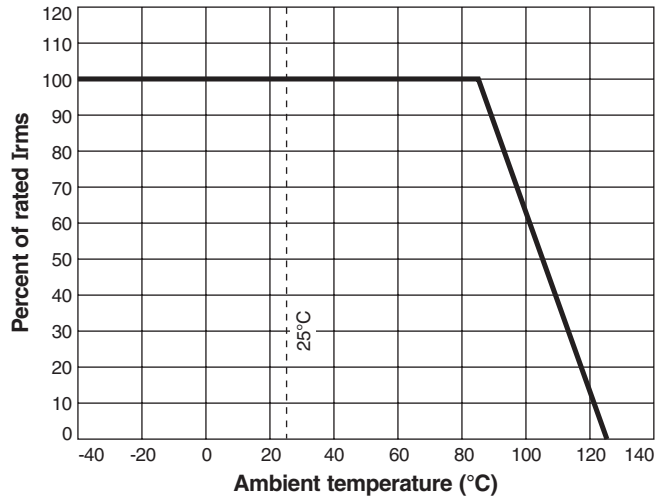
## L vs Current



## L vs Frequency



## Irms Derating



**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 636-2 Revised 12/16/11

© Coilcraft Inc. 2021

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.