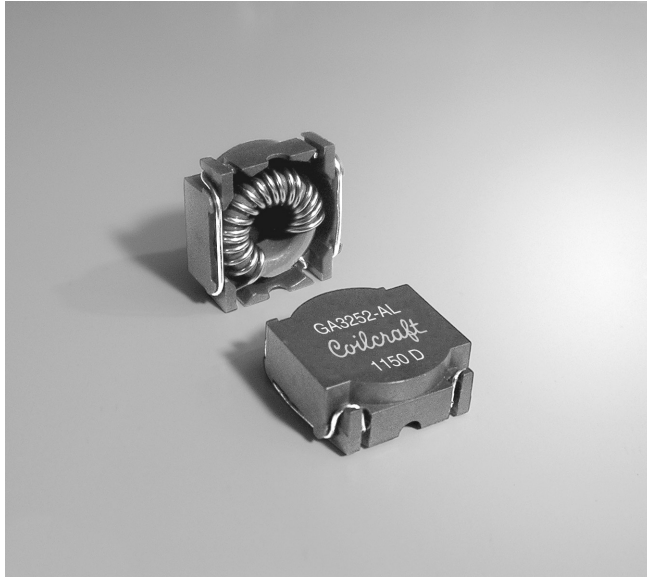




# Power Inductor – GA3252-AL

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 Irms 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)

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

**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

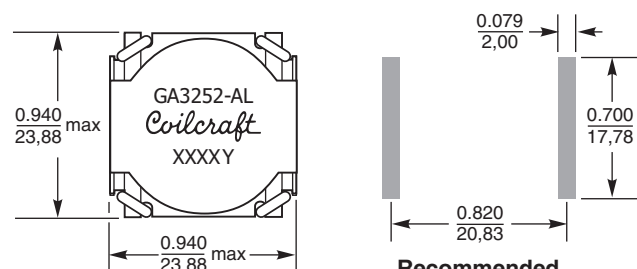
EIA-481 embossed plastic tape (200 per full reel).

B = Less than full reel

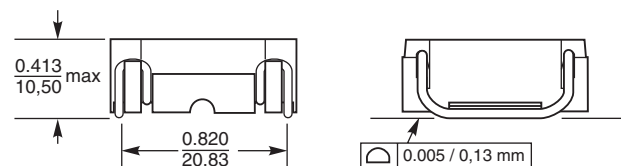
In tape, but not machine ready. To have a leader and trailer added (\$25 charge), use code letter D instead.

- Inductance tested at 100 kHz, 0.1 Vrms on Agilent/HP 4192A.
- DCR measured on a Keithley 580 micro-ohmmeter or equivalent.
- SRF measured on an Agilent/HP 8753ES network analyzer.
- DC current at which the inductance drops the specified amount from its value without current.
- Current that causes the specified temperature rise from 25°C ambient.
- 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.



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



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**US** +1-847-639-6400 sales@coilcraft.com  
**UK** +44-1236-730595 sales@coilcraft-europe.com  
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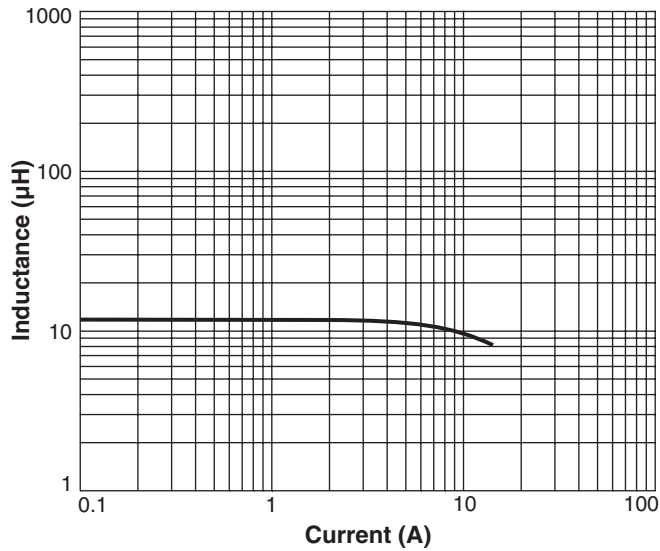
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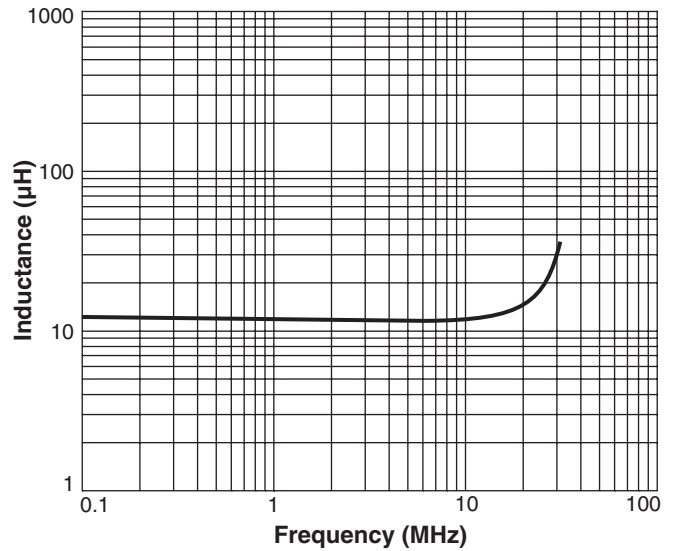


# Power Inductor - GA3252-AL

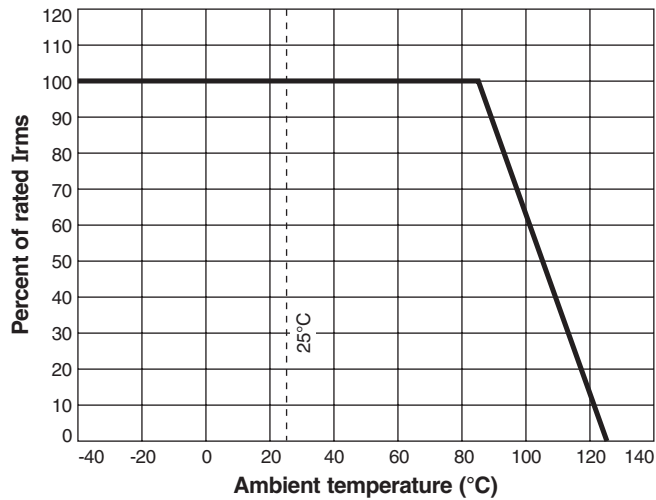
## L vs Current



## L vs Frequency



## Irms Derating



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**China** +86-21-6218 8074 sales@coilcraft.com.cn  
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