







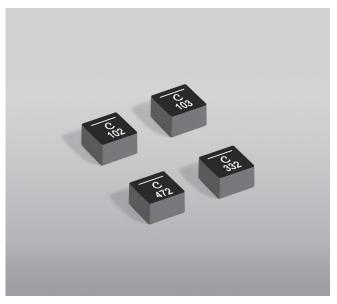




# Shielded Power Inductors – XGL4030







- · Industry's lowest DCR and ultra low AC losses over a wide frequency range
- AEC-Q200 Grade 1 qualified (-40°C to +125°C ambient)
- Superior current handling with soft saturation characteristics
- Wide inductance range up to 12  $\mu H$

Core material Composite

Core and winding loss See www.coilcraft.com/coreloss

Environmental RoHS compliant, halogen free

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

Weight: 0.27-0.30 g Operating voltage: 0 – 80 V

Ambient temperature -40°C to +125°C with (40°C rise) Irms current. Maximum part temperature +165°C (ambient + temp rise). Derating.

Storage temperature Component: -55°C to +165°C

Tape and reel packaging: -55°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 PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787\_PCB\_Washing.pdf.

	Inductance <sup>2</sup>	DCR (mOhms)3		SRF typ <sup>4</sup>	Isat ( <b>A)</b> ⁵			Irms (A) <sup>6</sup>	
Part number <sup>1</sup>	±20% (μH)	nom	max	(MHz)	10% drop	20% drop	30% drop	20°C rise	40°C rise
XGL4030-131ME_	0.13	1.5	1.8	265	12.5	19.5	26.5	21.0	27.0
XGL4030-271ME_	0.27	2.2	2.4	160	9.2	14.4	19.3	17.5	24.2
XGL4030-301ME_	0.30	2.5	2.9	130	8.0	12.5	17.0	17.0	24.0
XGL4030-401ME_	0.40	2.8	3.2	120	7.2	11.5	15.5	15.5	22.5
XGL4030-471ME_	0.47	3.4	3.9	100	6.8	10.6	14.2	15.3	21.2
XGL4030-621ME_	0.62	4.1	4.6	82	6.1	9.5	12.7	12.5	15.0
XGL4030-761ME_	0.76	4.9	5.5	72	5.6	8.7	11.8	12.3	14.2
XGL4030-102ME_	1.0	6.5	7.2	65	4.8	7.6	10.3	10.8	13.0
XGL4030-122ME_	1.2	8.5	9.4	55	4.2	6.8	9.2	9.5	12.2
XGL4030-152ME_	1.5	9.5	10.5	50	3.8	6.3	8.8	7.0	10.2
XGL4030-222ME_	2.2	13.5	15.0	40	3.1	5.0	7.0	5.8	8.7
XGL4030-332ME_	3.3	19.9	21.9	30	2.4	3.8	5.3	5.4	7.5
XGL4030-472ME_	4.7	28.5	31.5	26	2.1	3.2	4.4	4.8	6.6
XGL4030-562ME_	5.6	31.5	34.7	25	2.0	3.1	4.2	4.0	5.5
XGL4030-682ME_	6.8	43.5	47.9	22	1.8	2.7	3.65	3.5	4.7
XGL4030-822ME_	8.2	50.6	55.7	20	1.65	2.55	3.45	3.1	4.2
XGL4030-103ME_	10.0	63.0	69.5	18.5	1.4	2.3	3.1	2.9	3.9
XGL4030-123ME_	12.0	78.5	86.5	17	1.35	2.05	2.7	2.5	3.4

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

#### XGL4030-123MĒČ

**Termination: E** = 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).

C = 7" machine-ready reel. EIA-481 embossed plastic tape. Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge)

D = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked.

- 2. Inductance tested at 1 MHz, 0.1 Vrms, 0 Adc.
- 3. DCR measured on a micro-ohmmeter.
- 4. SRF measured using Agilent/HP 4395A or equivalent.
- 5. DC current at 25°C that causes the specified inductance drop from its value without current. Click for temperature derating information.
- 6. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings. Click for temperature derating information.
- 7. Electrical specifications at 25°C.

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

# 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

#### **Irms Testing**

Irms testing was performed on 0.75 inch wide × 0.25 inch thick copper traces in still air.

Temperature rise is highly dependent on many factors including pcb land pattern, trace size, and proximity to other components. Therefore temperature rise should be verified in application conditions.

Document 1575-1 Revised 10/04/19

© Coilcraft Inc. 2019

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

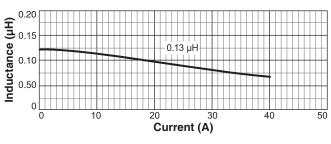


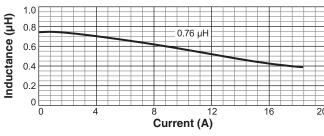
# Shielded Power Inductors - XGL4030

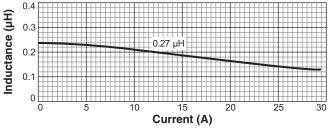


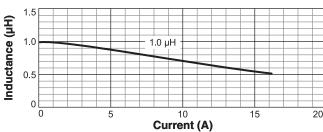


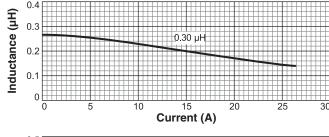
### L vs Current

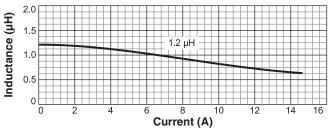


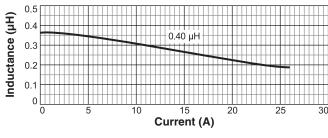


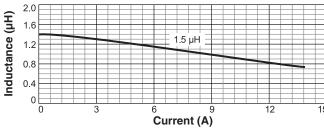


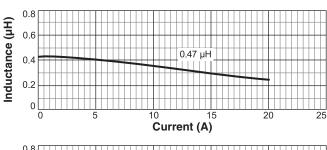


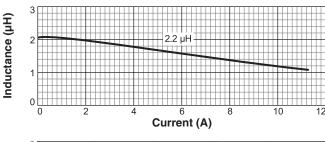


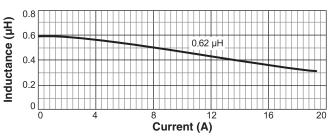


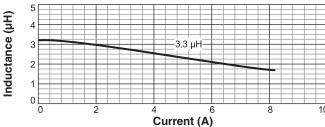














US +1-847-639-6400 sales@coilcraft.com **UK** +44-1236-730595 sales@coilcraft-europe.com Taiwan +886-2-2264 3646 sales@coilcraft.com.tw **China** +86-21-6218 8074 sales@coilcraft.com.cn Singapore + 65-6484 8412 sales@coilcraft.com.sg

#### Document 1575-2 Revised 10/04/19

© Coilcraft Inc. 2019 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



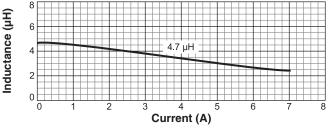
# Shielded Power Inductors - XGL4030

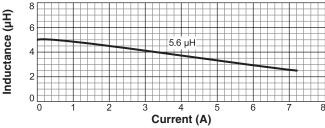


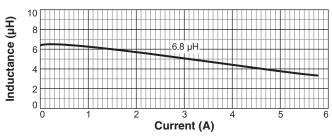


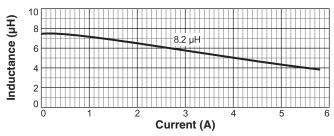


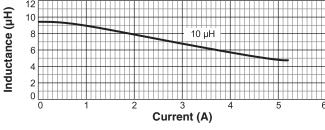
#### L vs Current

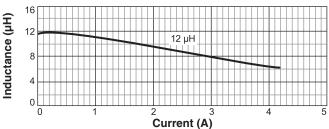




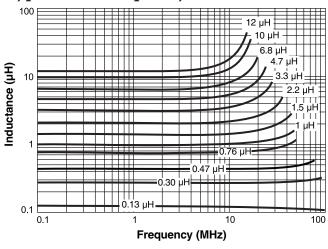


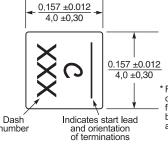






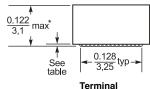
## Typical L vs Frequency





For optional tin-lead and tin-silvercopper terminations, dimensions are for the mounted part. Dimensions before mounting can be an additional 0.005 inch / 0.13 mm.





	-	0.093 2,37	-
0.134 3,4			
<u></u>		0.03	38
		omme d Pat	nded

<del>→</del> 0,98	
Recommended	
Land Pattern	

Dimensions are in inches

number	(in / mm)
-131	0.0118 / 0.30
-271	0.0118 / 0.30
-301	0.0098 / 0.25
-401	0.0118 / 0.30
-471	0.0098 / 0.25
-621	0.0098 / 0.25
-761	0.0098 / 0.25
-102	0.0087 / 0.22
-122	0.0079 / 0.20
-152	0.0075 / 0.19
-222	0.0063 / 0.16
-332	0.0047 / 0.12
-472	0.0039 / 0.10
-562	0.0039 / 0.10
-682	0.0031 / 0.08
-822	0.0031 / 0.08
-103	0.0028 / 0.07
-123	0.0024 / 0.06

Packaging 500/7" reel; 2000/13" reel Plastic tape: 12 mm wide, 0.23 mm thick, 8 mm pocket spacing, 3.25 mm pocket depth



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 1575-3 Revised 10/04/19

© Coilcraft Inc. 2019 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