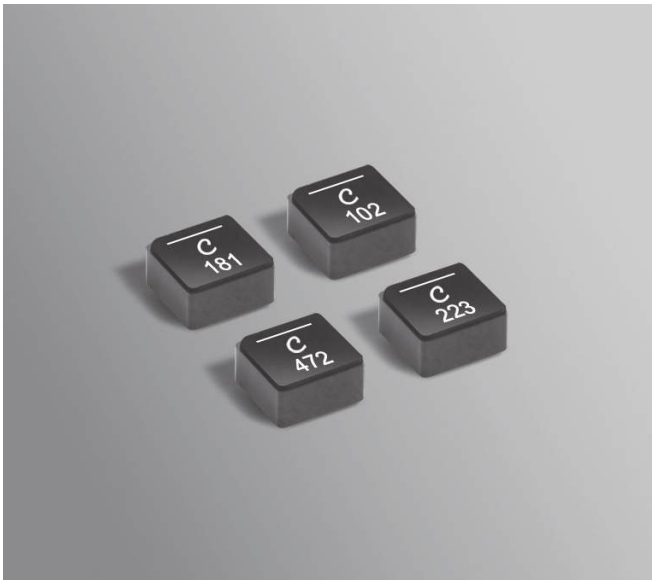
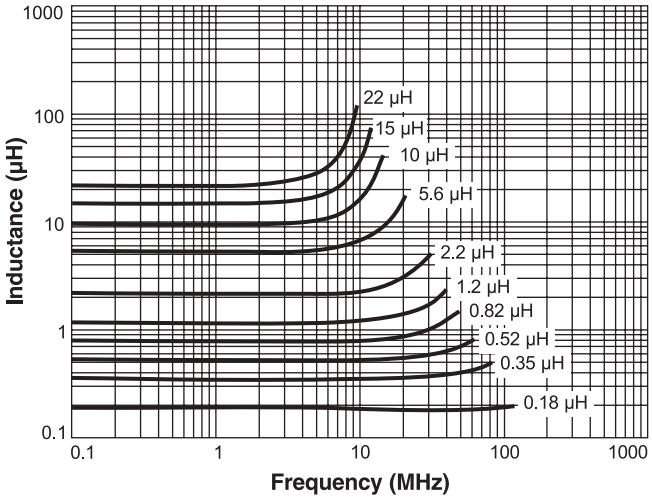
Shielded Power Inductors – XGL5030

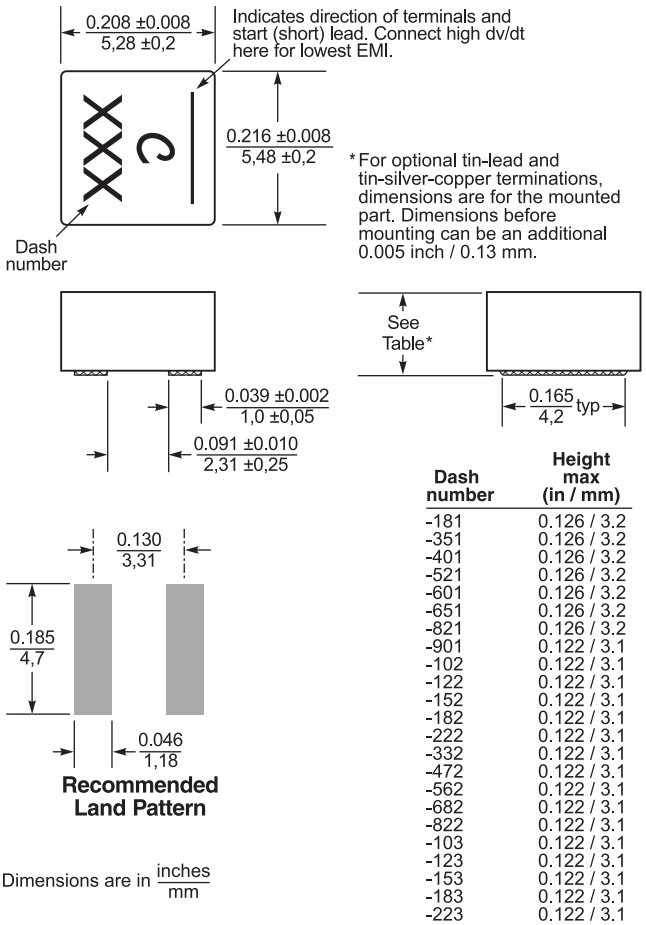


- Industry's lowest DCR and ultra low AC losses over a wide frequency range
- AEC-Q200 Grade 1 (–40°C to +125°C)
- Superior current handling with soft saturation characteristics
- Wide inductance range – 0.16 to 18 µH
- **Designer's Kit C492** contains 3 of each part

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: 0.46 – 0.52 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)
Packaging 400/7″ reel; 1500/13″ reel Plastic tape: 16 mm wide, 0.30 mm thick, 12 mm pocket spacing, 3.18 mm pocket depth
PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

Typical L vs Frequency





Dash number	Height max (in / mm)
-181	0.126 / 3.2
-351	0.126 / 3.2
-401	0.126 / 3.2
-521	0.126 / 3.2
-601	0.126 / 3.2
-651	0.126 / 3.2
-821	0.126 / 3.2
-901	0.122 / 3.1
-102	0.122 / 3.1
-122	0.122 / 3.1
-152	0.122 / 3.1
-182	0.122 / 3.1
-222	0.122 / 3.1
-332	0.122 / 3.1
-472	0.122 / 3.1
-562	0.122 / 3.1
-682	0.122 / 3.1
-822	0.122 / 3.1
-103	0.122 / 3.1
-123	0.122 / 3.1
-153	0.122 / 3.1
-183	0.122 / 3.1
-223	0.122 / 3.1

Coilcraft
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 1576-1 Revised 11/24/21

Shielded Power Inductors – XGL5030

Part number[1]	Inductance[2] ±20% (µH)	DCR (mOhms)[3] typ	DCR (mOhms)[3] max	SRF typ[4] (MHz)	Isat (A)[5] 10% drop	Isat (A)[5] 20% drop	Isat (A)[5] 30% drop	Irms (A)[6] 20°C rise	Irms (A)[6] 40°C rise
XGL5030-181ME_	0.18	1.3	1.6	160	13.6	22.0	30.0	24.4	31.8
XGL5030-351ME_	0.35	1.8	2.2	100	11.0	17.8	24.5	22.8	30.6
XGL5030-401ME_	0.40	2.2	2.7	88	10.0	16.6	23.0	19.3	25.1
XGL5030-521ME_	0.52	2.5	3.0	80	8.9	14.5	20.5	18.9	25.0
XGL5030-601ME_	0.60	2.6	3.2	75	8.4	13.5	18.7	17.6	23.0
XGL5030-651ME_	0.65	3.3	4.0	68	8.1	12.9	17.9	15.7	21.2
XGL5030-821ME_	0.82	3.8	4.6	56	7.3	11.9	16.7	15.3	21.1
XGL5030-901ME_	0.90	4.3	5.2	54	6.5	10.6	14.5	14.4	19.7
XGL5030-102ME_	1.00	4.8	5.8	52	5.9	10.2	14.0	12.8	17.8
XGL5030-122ME_	1.2	5.0	6.0	47	5.9	9.4	13.0	12.3	16.8
XGL5030-152ME_	1.5	6.8	7.9	43	5.3	8.7	12.2	11.6	15.4
XGL5030-182ME_	1.8	7.5	8.7	37	4.8	7.8	10.6	10.3	14.1
XGL5030-222ME_	2.2	9.2	10.6	34	4.2	6.8	9.4	9.6	12.9
XGL5030-332ME_	3.3	13.3	14.9	28	3.6	6.0	8.4	7.2	10.0
XGL5030-472ME_	4.7	21.9	24.5	23	3.1	4.8	6.7	6.3	8.5
XGL5030-562ME_	5.6	24.1	27.0	21	2.8	4.3	6.0	5.9	7.9
XGL5030-682ME_	6.8	28.6	32.1	18	2.5	3.9	5.5	5.4	7.3
XGL5030-822ME_	8.2	36.5	41.0	17	2.3	3.6	5.0	4.8	6.4
XGL5030-103ME_	10	43.0	48.4	15	2.1	3.3	4.5	4.3	5.7
XGL5030-123ME_	12	50.0	56.5	14	1.9	3.0	4.0	4.0	5.4
XGL5030-153ME_	15	68.8	77.1	12	1.7	2.7	3.6	3.4	4.5
XGL5030-183ME_	18	87.2	97.7	11	1.6	2.4	3.3	2.9	4.0
XGL5030-223ME_	22	106.0	118.8	10	1.4	2.2	3.0	2.6	3.6

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

   XGL5030-223MEC

   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).

   Packaging: **C** = 7″ machine-ready reel. EIA-481 embossed plastic tape (400 per full reel). 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 (1500 per full reel). 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.

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.

Coilcraft®
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 1576-2 Revised 11/24/21

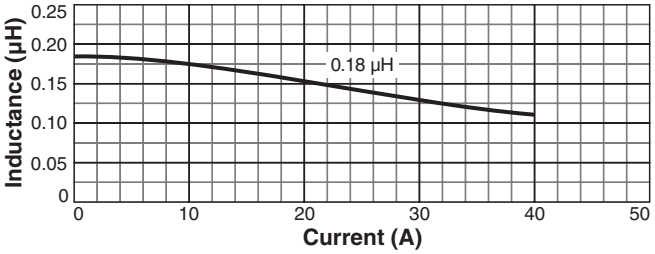
RoHS/ REACH COMPLIANT

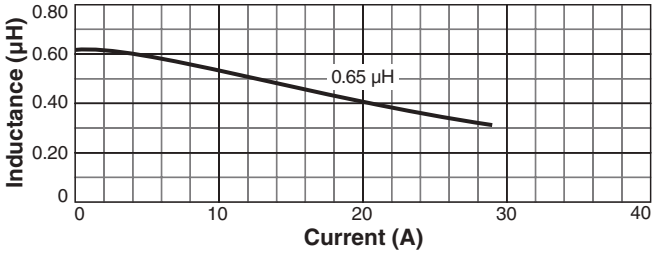
Halogen Free

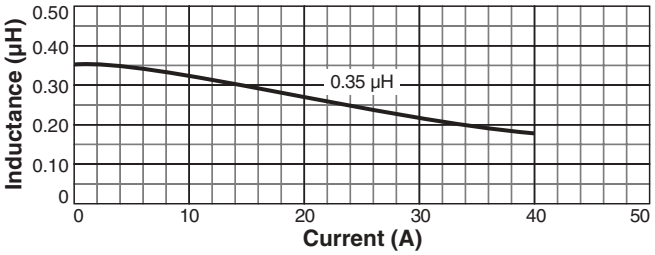
AEC Q200 +125°C

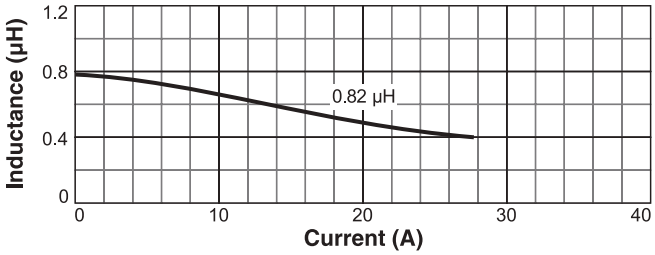
Shielded Power Inductors – XGL5030

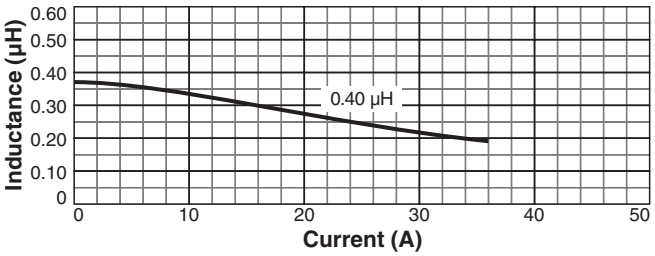
L vs Current

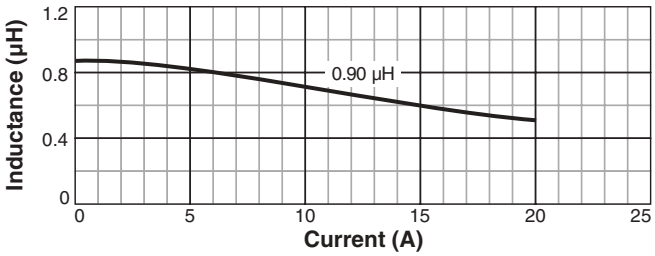


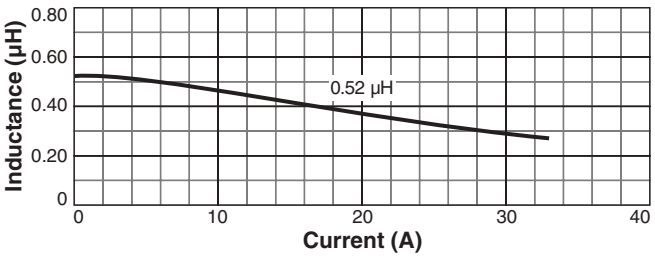


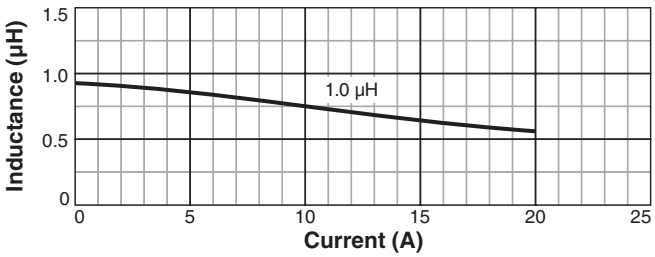


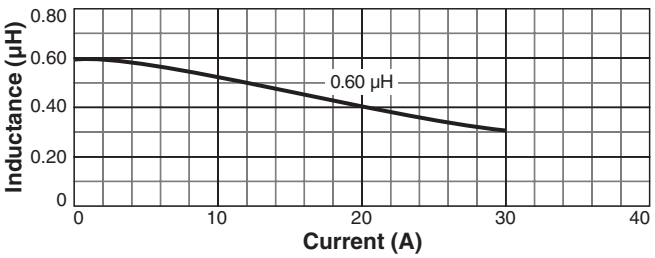


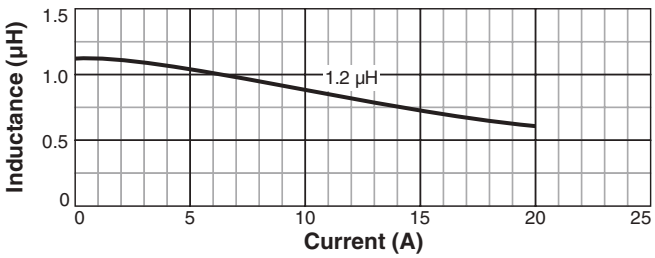












Coilcraft®
www.coilcraft.com

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 1576-3 Revised 11/24/21

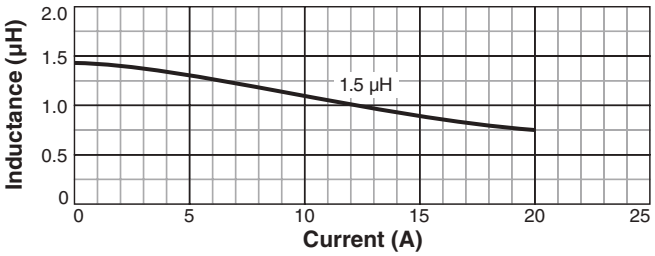
RoHS/ REACH COMPLIANT

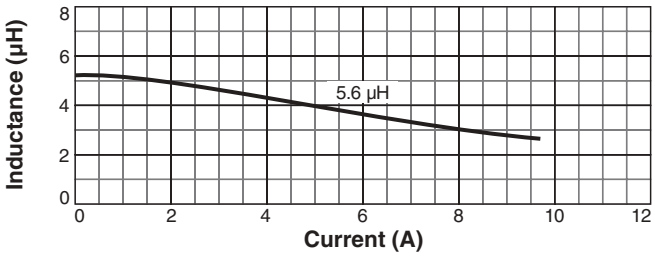
Halogen Free

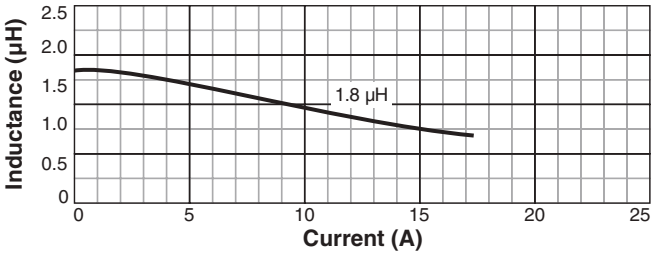
AEC Q200 +125°C

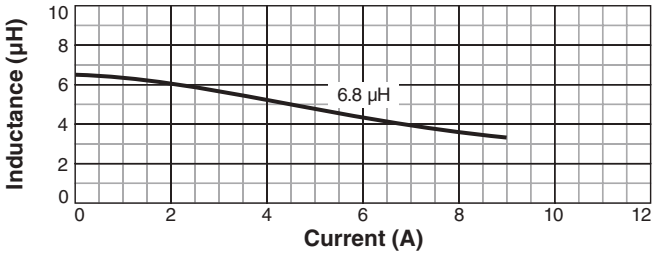
Shielded Power Inductors – XGL5030

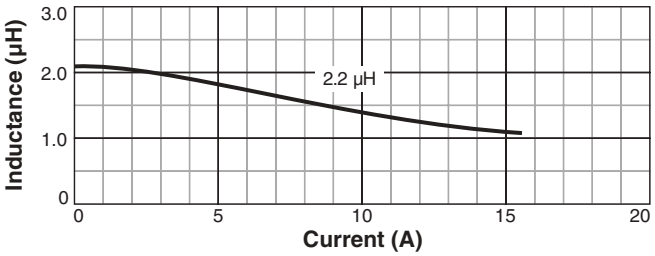
L vs Current

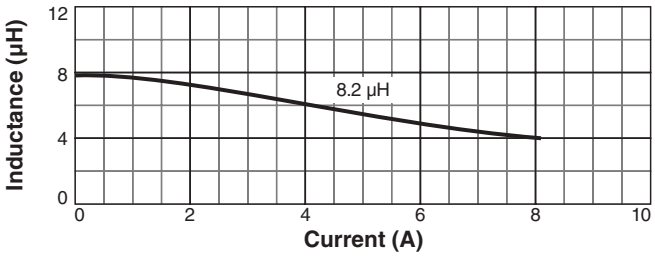


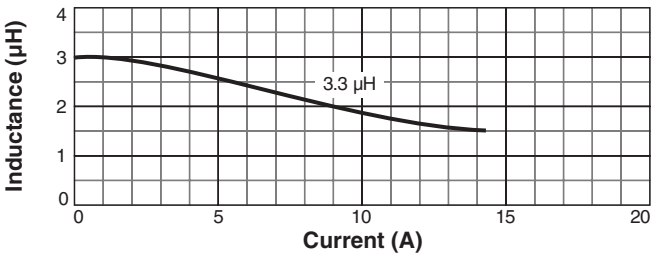


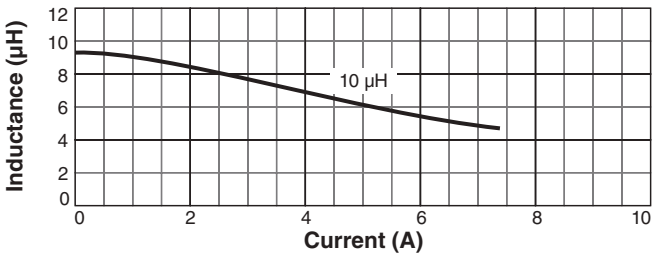


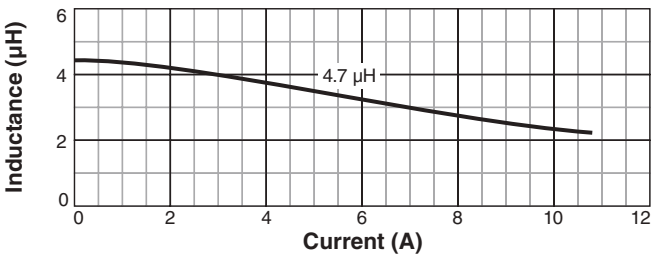


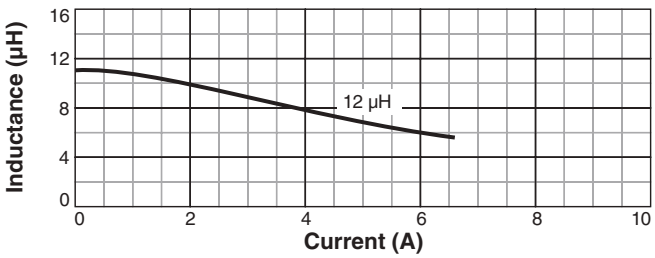












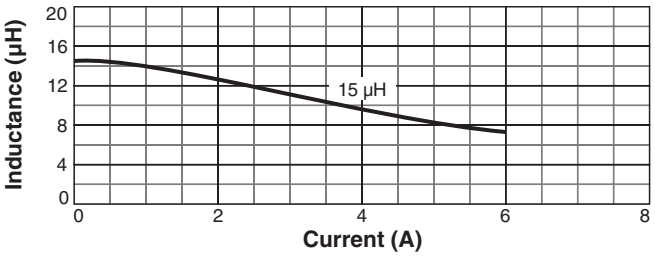
Coilcraft®
www.coilcraft.com

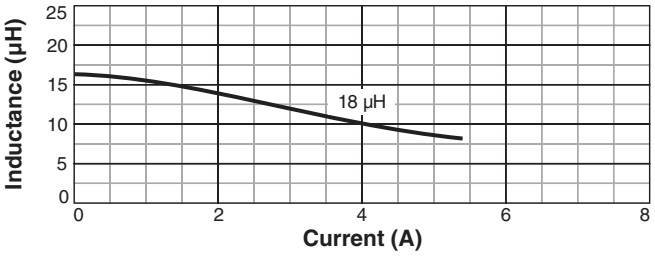
US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

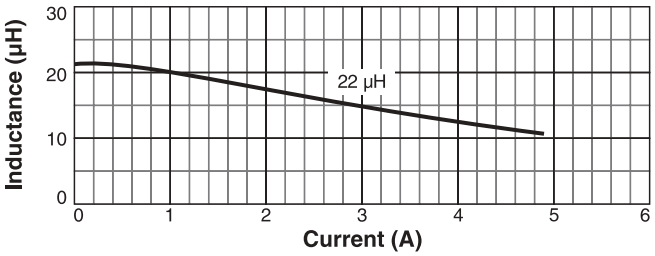
Document 1576-4 Revised 11/24/21

Shielded Power Inductors – XGL5030

L vs Current







Coilcraft
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