SER2011-122MLD Datasheet

DiGi Electronics Part Number	SER2011-122MLD-DG
Manufacturer	Coilcraft
Manufacturer Product Number	SER2011-122MLD
Description	FIXED IND 1.2UH 40A 1.34MOHM SM
Detailed Description	1.2 µH Shielded Wirewound Inductor 40 A 1.34mOhm Max Nonstandard

https://www.DiGi-Electronics.com

Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
SER2011-122MLD	Coilcraft
Series:	Product Status:
SER2000	Active
Type:	Material - Core:
Wirewound	Ferrite
Inductance:	Tolerance:
1.2 µH	±20%
Current Rating (Amps):	Current - Saturation (Isat):
40 A	49A
Shielding:	DC Resistance (DCR):
Shielded	1.34mOhm Max
Q @ Freq:	Frequency - Self Resonant:
-	81MHz
Ratings:	Operating Temperature:
AEC-Q200	-40°C ~ 85°C
Inductance Frequency - Test:	Features:
100 kHz	-
Mounting Type:	Package / Case:
Surface Mount	Nonstandard
Supplier Device Package:	Size / Dimension:
-	0.755" L x 0.365" W (19.18mm x 9.27mm)
Height - Seated (Max):	
0.420" (10.67mm)	

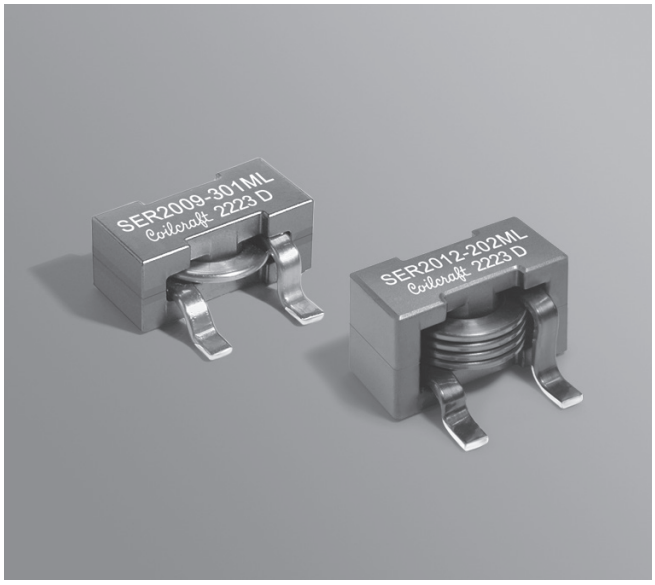
Environmental & Export classification

ECCN:	HTSUS:
EAR99	8504.50.8000

RoHS/ REACH COMPLIANT

AEC Q200 +85°C

Shielded Power Inductor – SER2000



- Designed for high current power supply applications
- Flat wire windings provide exceptionally low DCR
- Isat ratings as high as 100 A

Designer's Kit C374 contains 2 each of nine parts.

Core material Ferrite

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

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

Ambient temperature –40°C to +85°C with (40°C rise) Irms current.

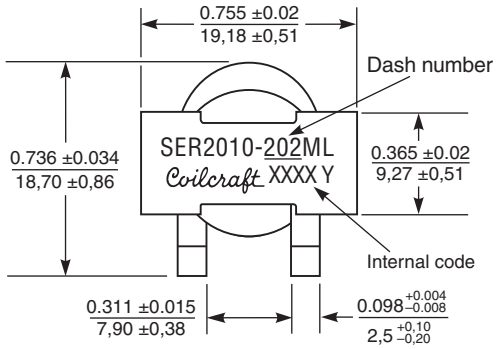
Maximum part temperature +125°C (ambient + temp rise). Derating.

Storage temperature Component: –40°C to +125°C.
Tape and reel packaging: –40°C to +80°C

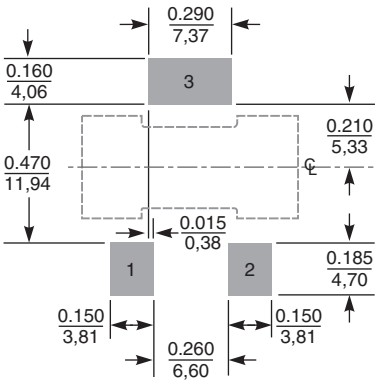
Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

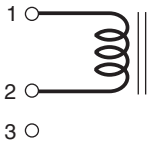
Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

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

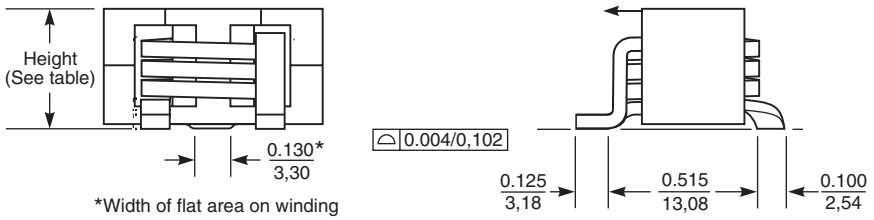


Recommended Land Pattern





Caution:
Terminal 3 is provided for mounting stability only. This terminal is connected to the winding of the inductor and must not be connected to ground or any circuitry.



*Width of flat area on winding

	Maximum height	Weight
SER2009	0.34 / 8,64	6.65 – 6.89 g
SER2010	0.37 / 9,40	7.46 – 7.90 g
SER2011	0.42 / 10,67	8.63 – 9.08 g
SER2012	0.47 / 11,94	9.92 – 10.3 g
SER2013	0.51 / 12,95	10.8 – 11.4 g
SER2014	0.55 / 13,97	11.7 – 12.4 g

Dimensions are in inches / mm

Packaging

SER2009 200 per 13″ reel; Plastic tape: 44 mm wide, 0.4 mm thick, 32 mm pocket spacing, 9.25 pocket depth
SER2010 200 per 13″ reel; Plastic tape: 44 mm wide, 0.4 mm thick, 32 mm pocket spacing, 10.5 pocket depth
SER2011 170 per 13″ reel; Plastic tape: 44 mm wide, 0.4 mm thick, 32 mm pocket spacing, 11.6 pocket depth
SER2012 150 per 13″ reel; Plastic tape: 44 mm wide, 0.4 mm thick, 32 mm pocket spacing, 13.0 pocket depth
SER2013 150 per 13″ reel; Plastic tape: 44 mm wide, 0.5 mm thick, 32 mm pocket spacing, 14.0 pocket depth
SER2014 125 per 13″ reel; Plastic tape: 44 mm wide, 0.5 mm thick, 32 mm pocket spacing, 15.0 pocket depth

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 349-1 Revised 11/19/24

RoHS/ REACH COMPLIANT

AEC Q200 +85°C

Shielded Power Inductors – SER2000 Series

SPICE models ON OUR WEB SITE

Part number[1]	Inductance ±20%[2] (µH)	DCR typ[3] (mΩ)	DCR max[3] (mΩ)	SRF typ[4] (MHz)	Isat[5] (A)	Irms (A)[6] 20°C rise	Irms (A)[6] 40°C rise	Height (mm)
SER2009-301ML_	0.30	0.630	0.740	550	100	41	54	8,64
SER2010-301ML_	0.30	0.900	1.00	182	100	36	45	9,40
SER2009-501ML_	0.50	0.630	0.740	544	60	41	54	8,64
SER2010-501ML_	0.50	0.900	1.00	148	81	36	45	9,40
SER2011-501ML_	0.50	1.20	1.34	161	100	30	40	10,67
SER2009-601ML_	0.60	0.630	0.740	648	49	41	54	8,64
SER2010-601ML_	0.60	0.900	1.00	115	70	36	45	9,40
SER2011-601ML_	0.60	1.20	1.34	124	90	30	40	10,67
SER2012-601ML_	0.60	1.44	1.60	115	97	25	35	11,94
SER2009-681ML_	0.68	0.630	0.740	454	45	41	54	8,64
SER2010-681ML_	0.68	0.900	1.00	136	62	36	45	9,40
SER2011-681ML_	0.68	1.20	1.34	135	78	30	40	10,67
SER2012-681ML_	0.68	1.44	1.60	103	85	25	35	11,94
SER2013-681ML_	0.68	1.70	1.82	104	98	23	30	12,95
SER2009-801ML_	0.80	0.630	0.740	567	38	41	54	8,64
SER2010-801ML_	0.80	0.900	1.00	92	53	36	45	9,40
SER2011-801ML_	0.80	1.20	1.34	113	70	30	40	10,67
SER2012-801ML_	0.80	1.44	1.60	91	75	25	35	11,94
SER2013-801ML_	0.80	1.70	1.82	93	85	23	30	12,95
SER2014-801ML_	0.80	1.94	2.15	104	98	21	27	13,97
SER2009-901ML_	0.90	0.630	0.740	557	33	41	54	8,64
SER2010-901ML_	0.90	0.900	1.00	96	48	36	45	9,40
SER2011-901ML_	0.90	1.20	1.34	104	62	30	40	10,67
SER2012-901ML_	0.90	1.44	1.60	85	69	25	35	11,94
SER2013-901ML_	0.90	1.70	1.82	98	73	23	30	12,95
SER2014-901ML_	0.90	1.94	2.15	102	87	21	27	13,97
SER2009-102ML_	1.0	0.630	0.740	488	29	41	54	8,64
SER2010-102ML_	1.0	0.900	1.00	81	42	36	45	9,40
SER2011-102ML_	1.0	1.20	1.34	97	56	30	40	10,67
SER2012-102ML_	1.0	1.44	1.60	75	64	25	35	11,94
SER2013-102ML_	1.0	1.70	1.82	98	68	23	30	12,95
SER2014-102ML_	1.0	1.94	2.15	88	70	21	27	13,97
SER2009-122ML_	1.2	0.630	0.740	81	28	41	54	8,64
SER2010-122ML_	1.2	0.900	1.00	69	37	36	45	9,40
SER2011-122ML_	1.2	1.20	1.34	81	49	30	40	10,67
SER2012-122ML_	1.2	1.44	1.60	73	54	25	35	11,94
SER2013-122ML_	1.2	1.70	1.82	82	58	23	30	12,95
SER2014-122ML_	1.2	1.94	2.15	78	63	21	27	13,97
SER2009-202ML_	2.0	0.630	0.740	40	16	41	54	8,64
SER2010-202ML_	2.0	0.900	1.00	48	27	36	45	9,40
SER2011-202ML_	2.0	1.20	1.34	56	37	30	40	10,67
SER2012-202ML_	2.0	1.44	1.60	51	35	25	35	11,94
SER2013-202ML_	2.0	1.70	1.82	61	40	23	30	12,95
SER2014-202ML_	2.0	1.94	2.15	62	45	21	27	13,97
SER2013-362ML_	3.6	1.70	1.82	38	25	23	30	12,95
SER2013-402ML_	4.0	1.70	1.82	35	20	23	30	12,95
SER2014-402ML_	4.0	1.94	2.15	36	25	21	27	13,97
SER2013-472ML_	4.7	1.70	1.82	30	18	23	30	12,95

Parts shown in bold are included in Coilcraft Designer's Kit C374.

1. Please specify **termination** and **packaging** codes:

SER2013-472MLD

Termination: L = RoHS compliant tin-silver-copper over copper.
Special order:
S = non-RoHS tin-lead (63/37).

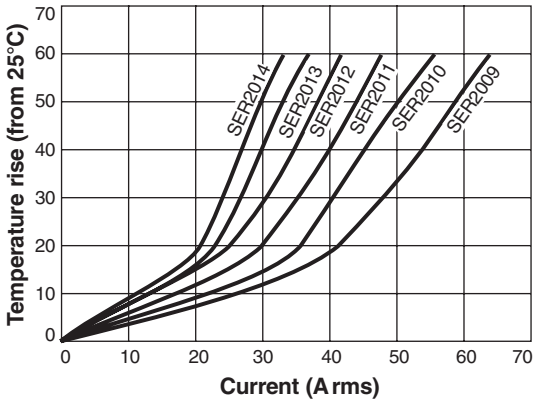
Packaging: D = 13″ machine-ready reel. EIA-481 embossed plastic tape. Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).

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 measured at 100 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4263B LCR meter or equivalent.
3. DCR measured on a Keithley 580 micro-ohmmeter.
4. SRF measured using an Agilent/HP 4395A network analyzer and an Agilent/HP 16092A test fixture.
5. DC current at 25°C that causes a 10% (typ) 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. When Irms is greater than Isat, Isat is the more critical specification, and Irms is shown in gray type. See Temperature Rise vs Current curve below.
7. Electrical specifications at 25°C.

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

Temperature Rise vs Current



Coilcraft®
www.coilcraft.com

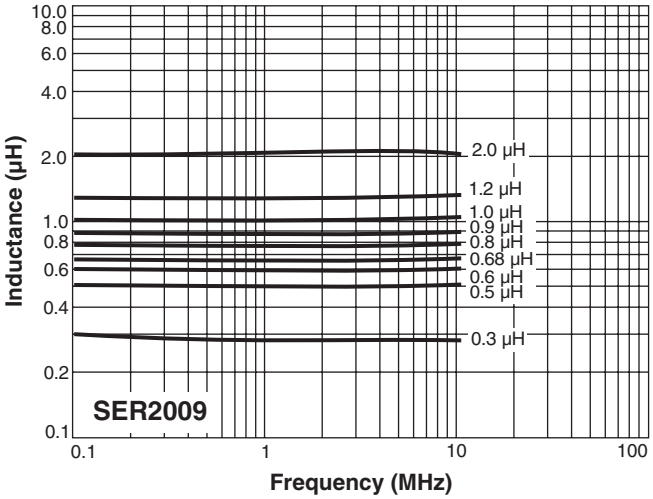
US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

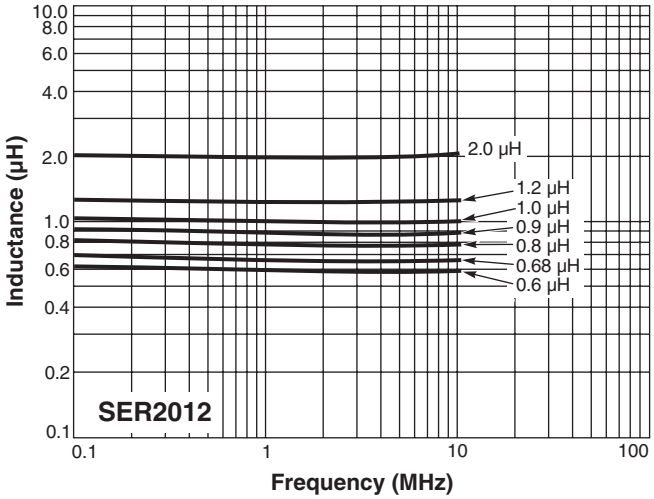
RoHS/ REACH COMPLIANT

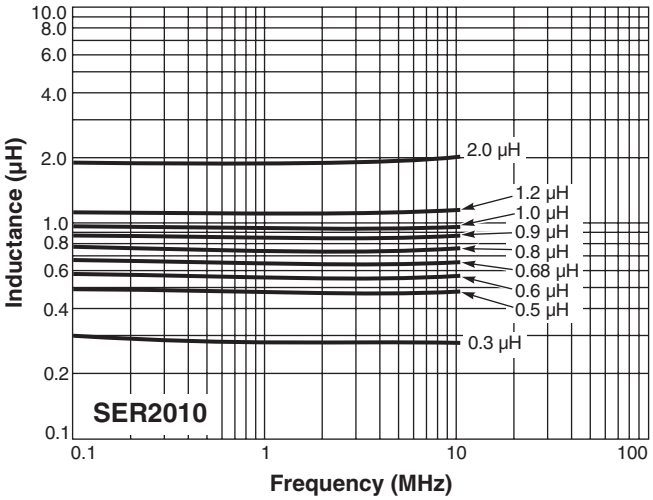
AEC Q200 +85°C

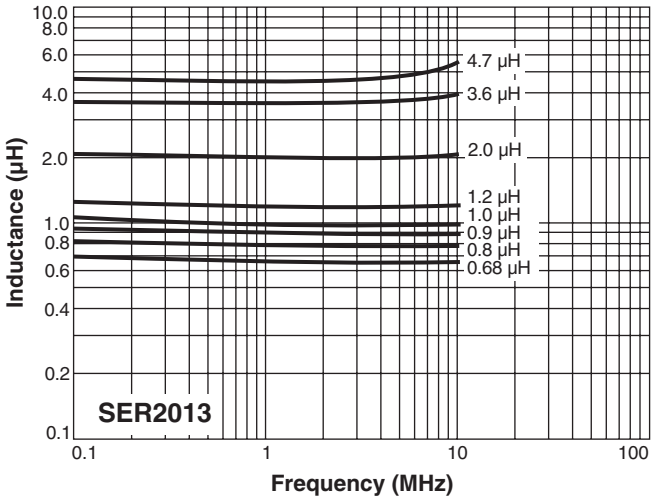
Shielded Power Inductors – SER2000 Series

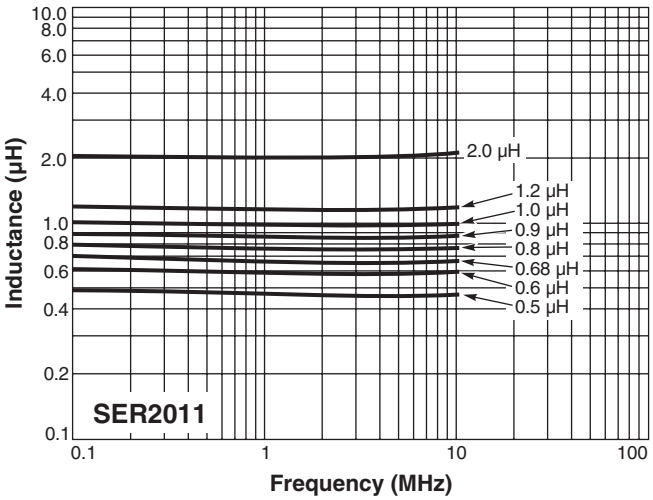
L vs Frequency

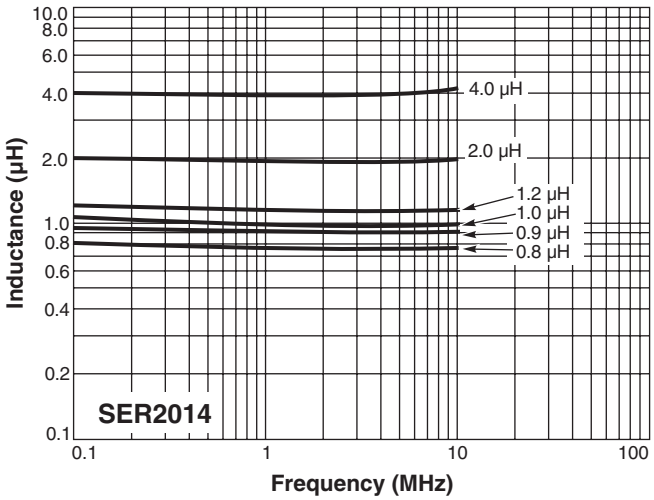












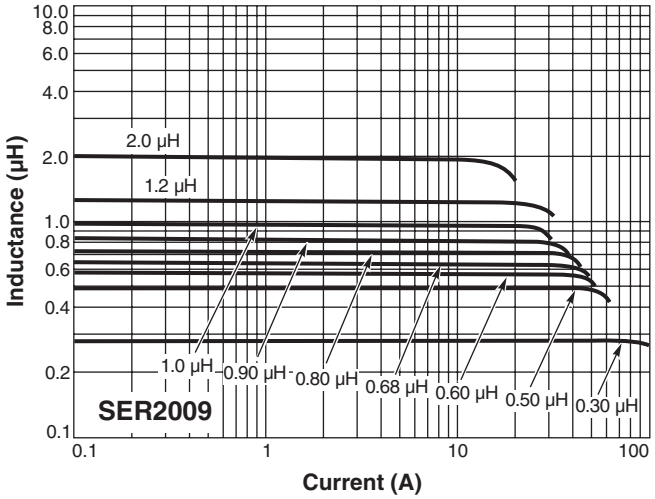
Coilcraft®
www.coilcraft.com

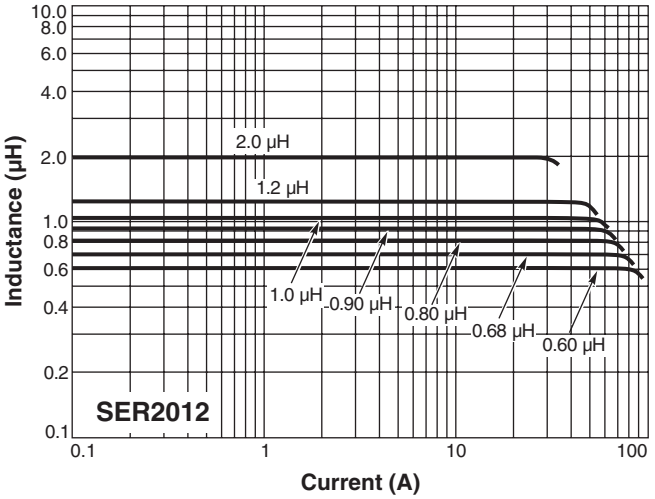
US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

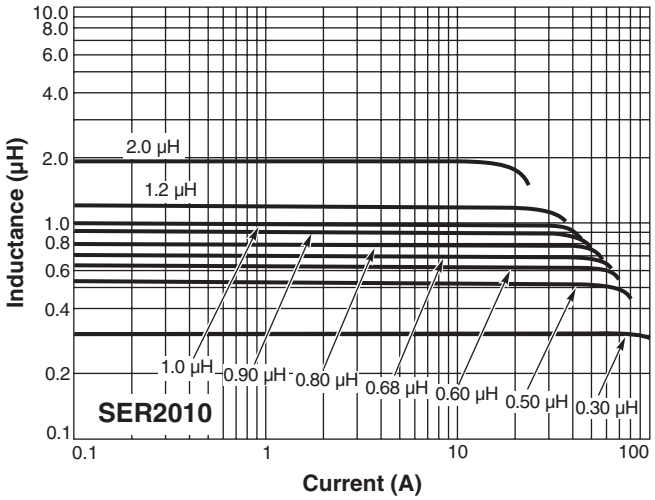
Document 349-2 Revised 11/19/24

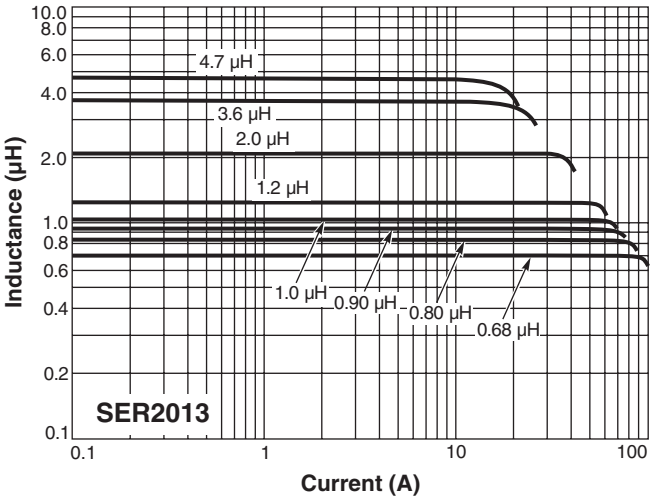
Shielded Power Inductors – SER2000 Series

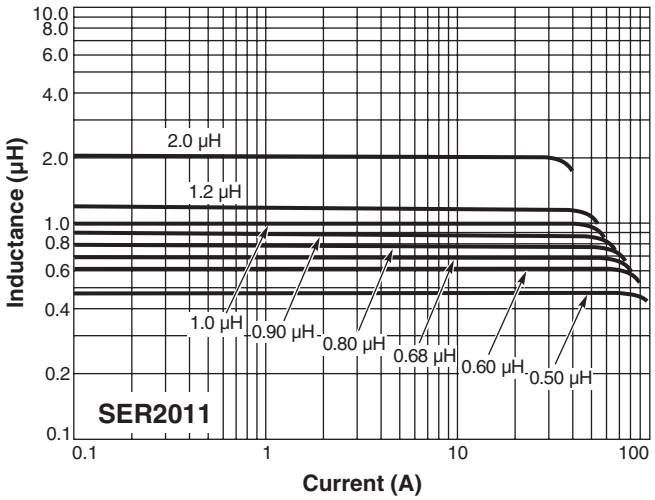
L vs Current

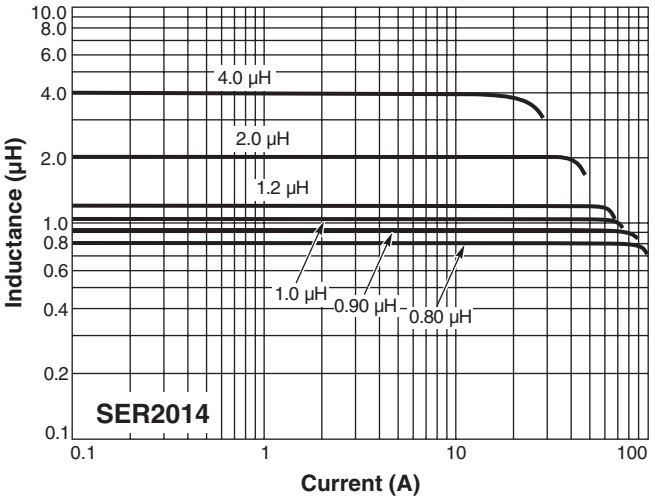












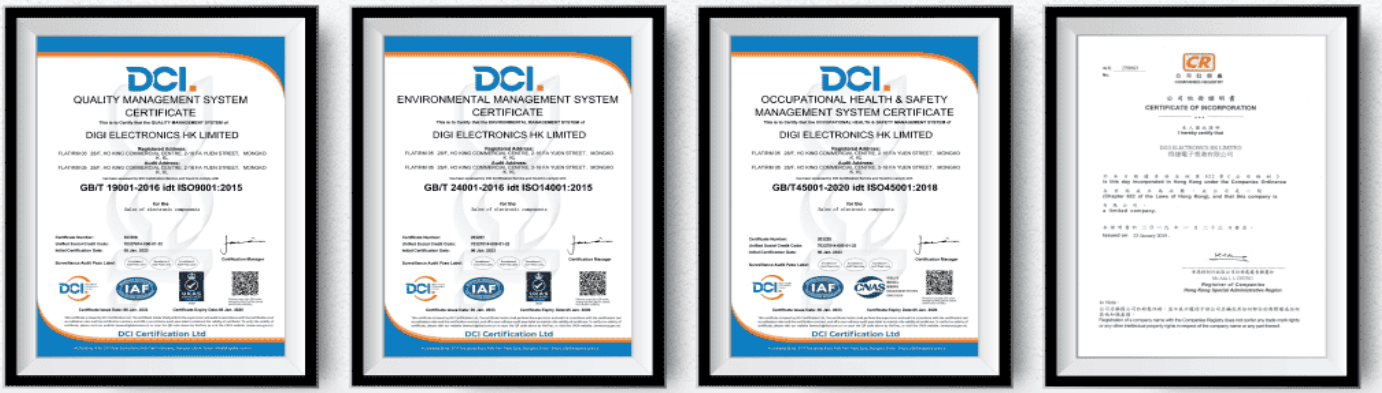
Coilcraft
www.coilcraft.com

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 349-2 Revised 11/19/24

OUR CERTIFICATE

DiGi provide top-quality products and perfect service for customer worldwide through standardization, technological innovation and continuous improvement. DiGi through third-party certification, we striciy control the quality of products and services. Welcome your RFQ to Email: Info@DiGi-Electronics.com



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.