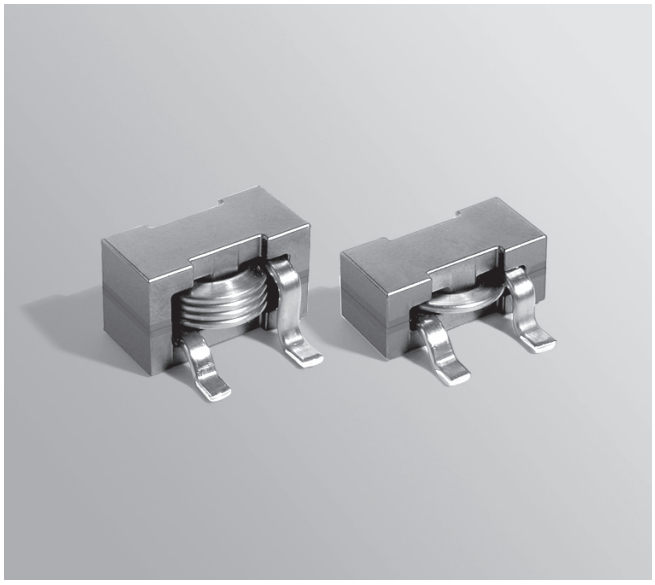
Shielded Power Inductor – SER2000



- 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 over copper. Other terminations available at additional cost.

Ambient temperature –40°C to +85°C with Irms current, +85°C to +125°C with derated current

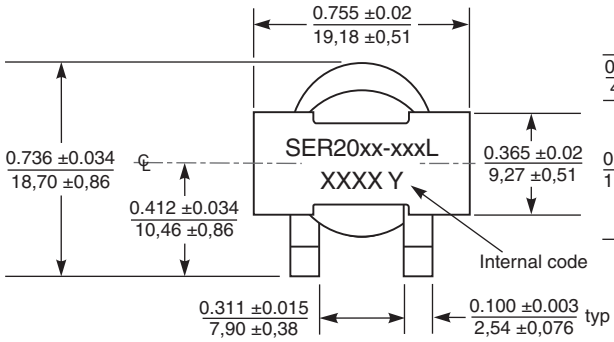
Storage temperature Component: –40°C to +125°C. Tape and reel packaging: –40°C to +80°C

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

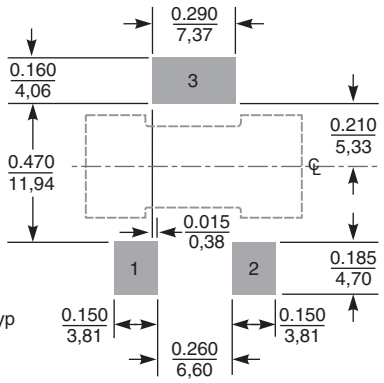
Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

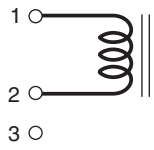
Failures in Time (FIT) / Mean Time Between Failures (MTBF) 38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

PCB washing Only pure water or alcohol recommended

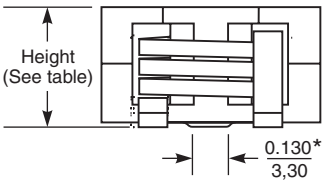


Recommended Land Pattern

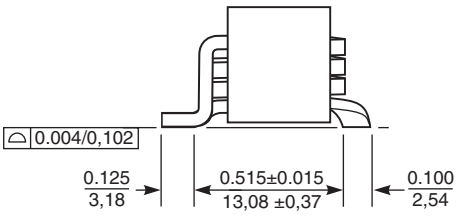




Caution:
Terminal 3 is provided for mounting stability only. This terminal is connected to the winding of the inductor and must not be connected to ground or any circuitry.



*Width of flat area on winding



Dimensions are in inches / mm

	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

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

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Shielded Power Inductors – SER2000 Series

SPICE models
ON OUR WEB SITE

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

SER2014-202MLD

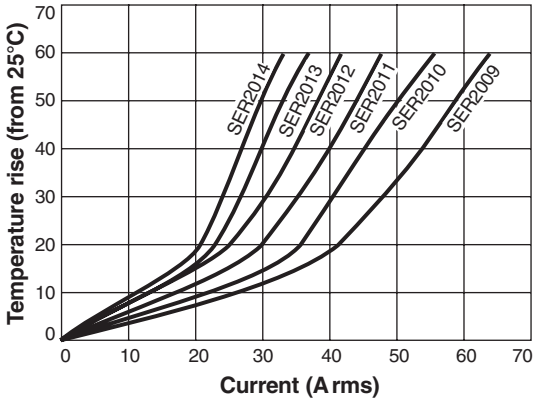
Termination: L = RoHS compliant tin-silver over copper.
Special order:
T = RoHS tin-silver-copper (95.5/4/0.5) or **S** = non-RoHS tin-lead (63/37).

Packaging: **D** = 13″ machine-ready reel. EIA-481 embossed plastic tape.
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.

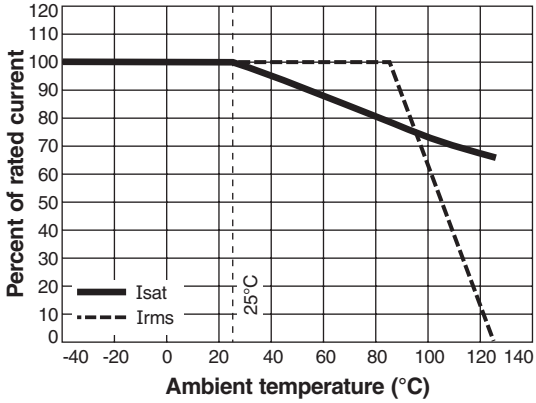
2. Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4263B LCR meter or equivalent.
3. DCR measured on a Keithley 580 micro-ohmmeter.
4. SRF measured using an Agilent/HP 4395A network analyzer and an Agilent/HP 16092A test fixture.
5. DC current at which the inductance drops 10% (typ) from its value without current.
6. Current that causes the specified temperature rise from 25°C ambient. 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



Current Derating



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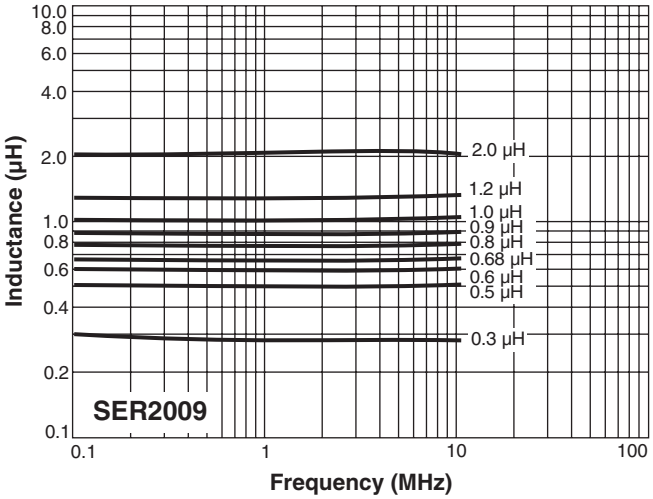
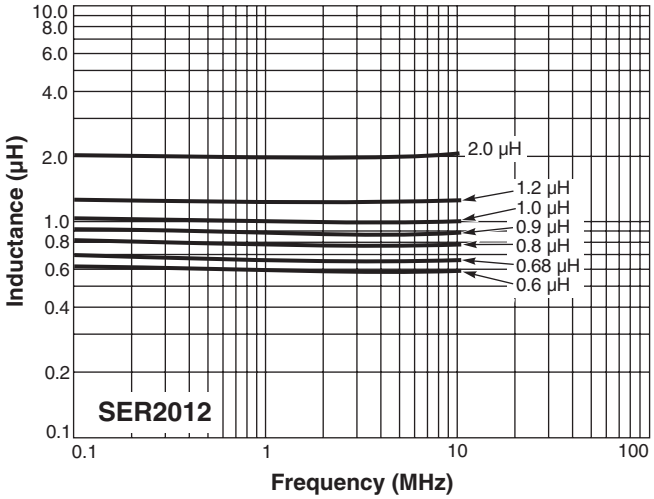
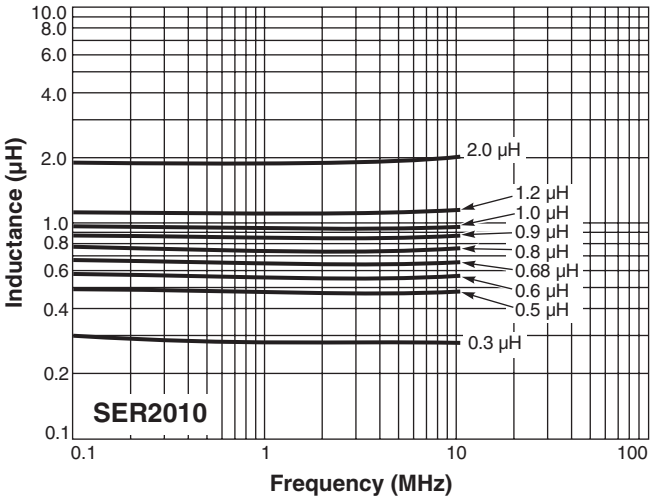
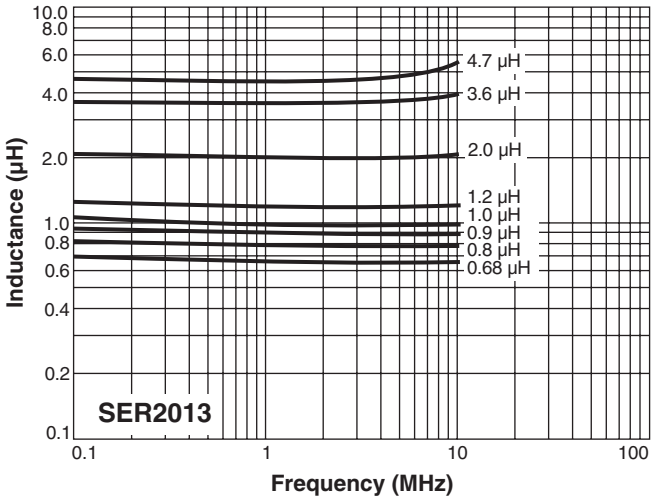
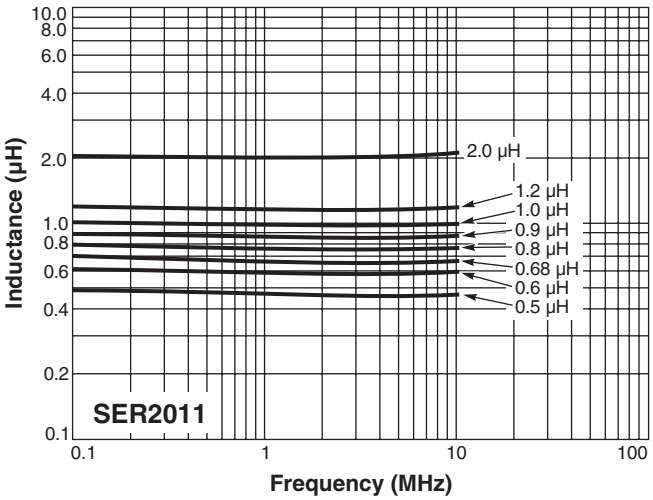
L vs Frequency

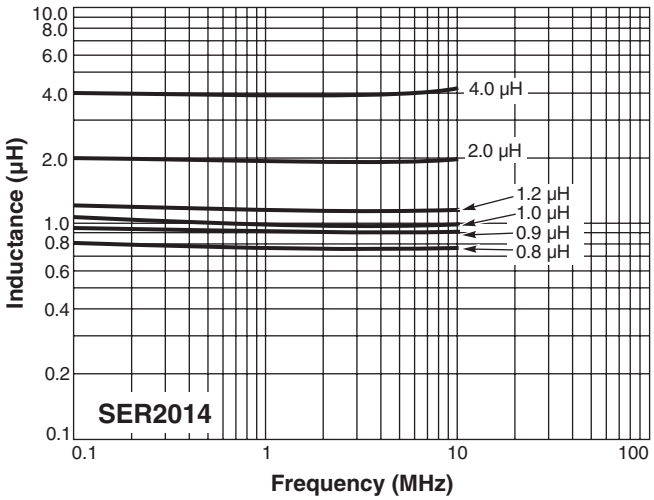












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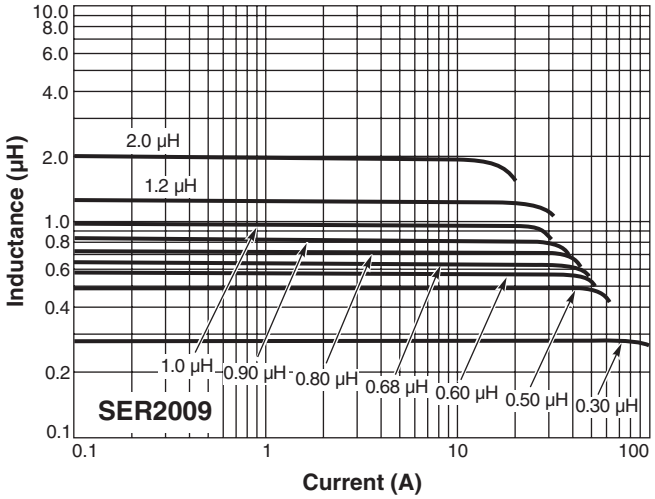
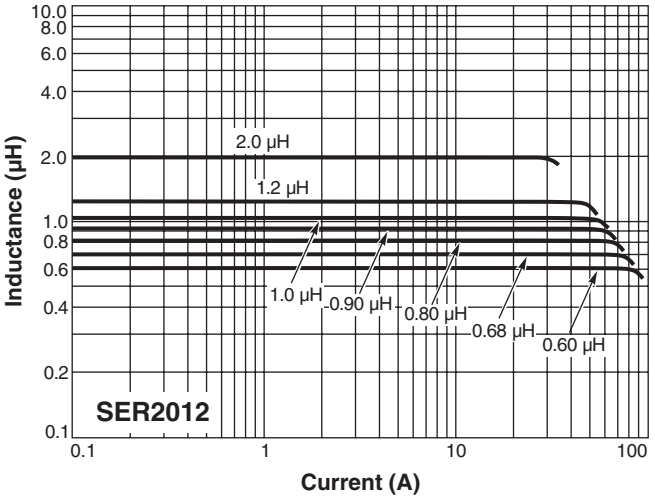
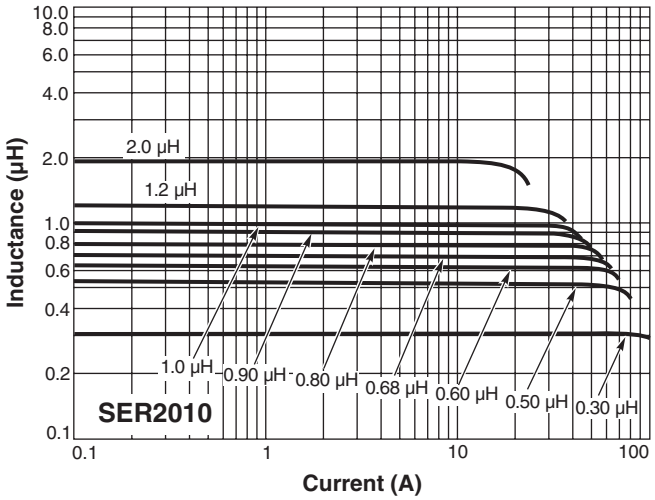
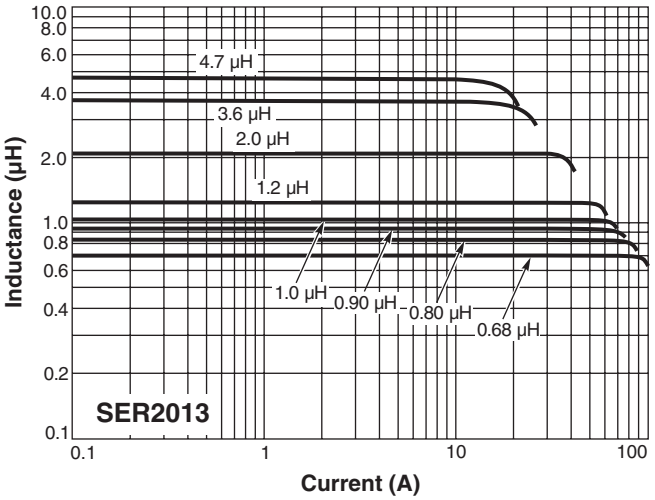
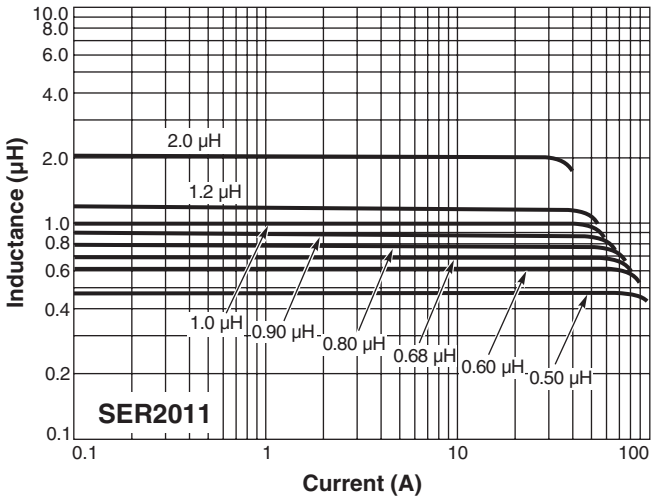
L vs Current

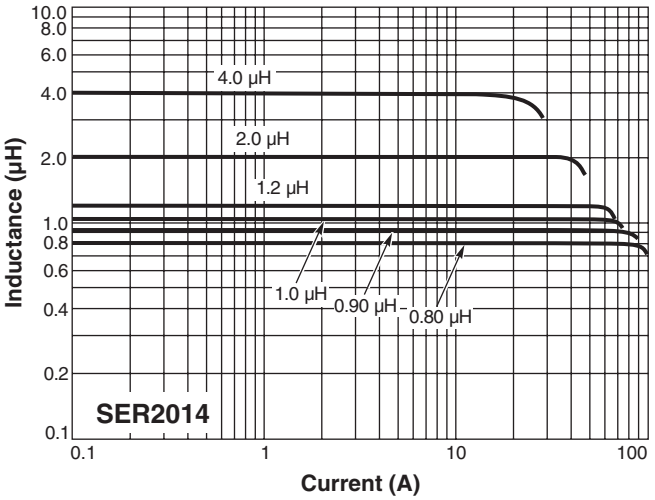












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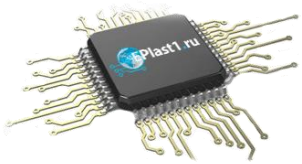
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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