

**NEW!**

# Shielded Power Inductors – SER80<sub>XX</sub>



- Two different DCR / Isat versions to match the requirements of a wide variety of applications
- Low DCR; excellent current handling

**Core material** Ferrite

**Terminations** RoHS tin-silver over tin over nickel over phos bronze (pins 1 and 2); Matte tin over nickel over phos bronze (pin 3). Other terminations available at additional cost.

**Weight** 0.86 – 1.0 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 +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

**Packaging** 250/7" reel, 1000/13" reel; Plastic tape: 16 mm wide, 0.4 mm thick, 12 mm pocket spacing, 5.2 mm pocket depth

**PCB washing** Only pure water or alcohol recommended

## Low DCR version for high average current applications

Part number <sup>1</sup>	Inductance <sup>2</sup> ±20% (µH)	DCR (mOhm) <sup>3</sup>		SRF typ <sup>4</sup> (MHz)	Isat (A) <sup>5</sup>			Irms (A) <sup>6</sup>	
		typ	max		10% drop	20% drop	30% drop	20°C rise	40°C rise
SER8050-501ME_	0.50	2.22	2.50	234	19.40	22.02	22.68	9.78	13.52
SER8050-112ME_	1.1	3.19	3.50	109	12.22	13.86	14.50	8.05	11.97
SER8050-202ME_	2.0	5.35	5.88	74	7.94	9.22	9.78	7.83	10.79
SER8052-312ME_	3.1	6.44	7.20	63	6.58	7.56	8.00	6.26	8.71
SER8052-452ME_	4.5	8.64	9.50	52	4.76	5.74	6.14	5.37	7.68
SER8052-612ME_	6.1	8.64	9.50	45	3.44	4.22	4.58	5.17	7.31
SER8052-802ME_	8.0	13.03	14.33	43	2.90	3.58	3.86	4.57	6.31
SER8052-103ME_	10	13.03	14.33	40	2.24	2.80	3.10	4.61	6.32

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

SER8052-103MED

**Termination:** E = RoHS tin-silver over tin over nickel over phos bronze (pins 1 and 2); Matte tin over nickel over phos bronze (pin 3).

**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 (250 parts 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 C instead.

D = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (1000 parts per full reel).

2. Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4284A or equivalent.

3. DCR measured on a micro-ohmmeter.

4. SRF measured using an Agilent/HP 8753D network analyzer and an Agilent/HP 16193A test fixture.

5. DC current at which the inductance drops the specified amount from its value without current.

6. Current that causes the specified temperature rise from 25°C ambient.

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

Document 892-1 Revised 08/21/12

© Coilcraft Inc. 2012

This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check out web site for latest information.



# NEW!

## SER80xx Shielded Power Inductors

High Isat version for high peak current applications

Part number <sup>1</sup>	Inductance <sup>2</sup> ±20% (µH)	DCR (mOhm) <sup>3</sup>		SRF typ <sup>4</sup> (MHz)	Isat (A) <sup>5</sup>			Irms (A) <sup>6</sup>	
		typ	max		10% drop	20% drop	30% drop	20°C rise	40°C rise
SER8050-201ME_	0.20	2.22	2.50	381	51.04	53.04	53.44	8.71	12.89
SER8050-451ME_	0.45	3.19	3.50	216	29.52	30.32	31.12	7.95	11.72
SER8050-811ME_	0.80	5.35	5.88	125	22.48	24.40	25.20	6.48	9.43
SER8052-122ME_	1.2	6.44	7.20	110	17.42	18.54	19.18	6.03	8.11
SER8052-182ME_	1.8	8.64	9.50	91	13.60	14.56	14.88	5.33	7.94
SER8052-242ME_	2.4	8.64	9.50	76	10.36	11.38	11.80	5.40	7.58
SER8052-332ME_	3.2	13.03	14.33	72	9.02	9.84	10.24	4.43	6.25
SER8052-402ME_	4.0	13.03	14.33	66	7.04	7.84	8.24	4.53	6.30

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

**SER8052-402MED**

**Termination:** E = RoHS tin-silver over tin over nickel over phos bronze (pins 1 and 2); Matte tin over nickel over phos bronze (pin 3).

**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 (250 parts 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 C instead.

D = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked(1000 parts per full reel).

2. Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4284A or equivalent.

3. DCR measured on a micro-ohmmeter.

4. SRF measured using an Agilent/HP 8753D network analyzer and an Agilent/HP 16193A test fixture.

5. DC current at which the inductance drops the specified amount from its value without current.

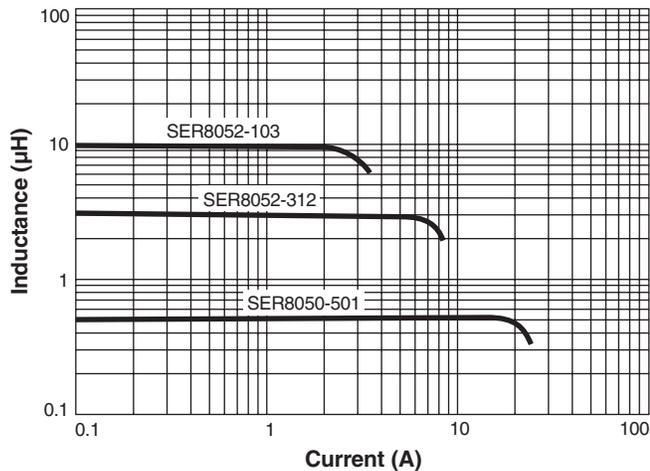
6. Current that causes the specified temperature rise from 25°C ambient.

7. Electrical specifications at 25°C.

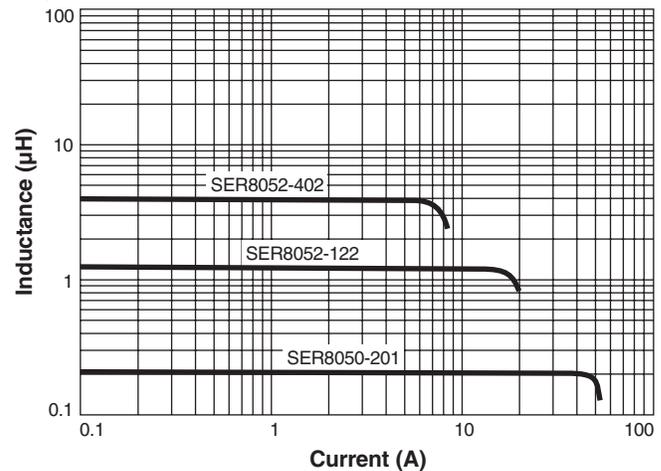
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

## Typical L vs Current

### Low DCR version



### High Isat version

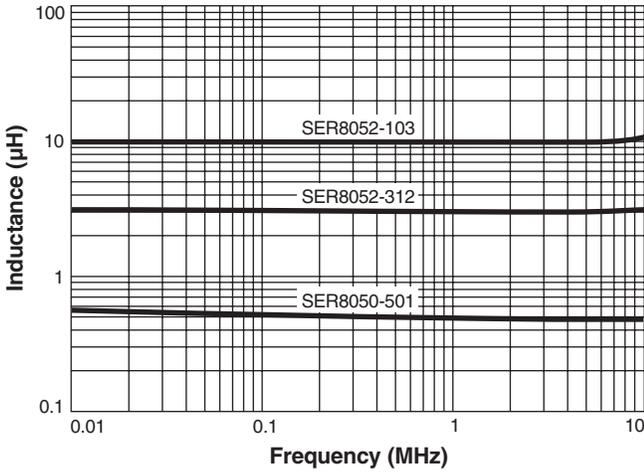


**NEW!**

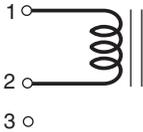
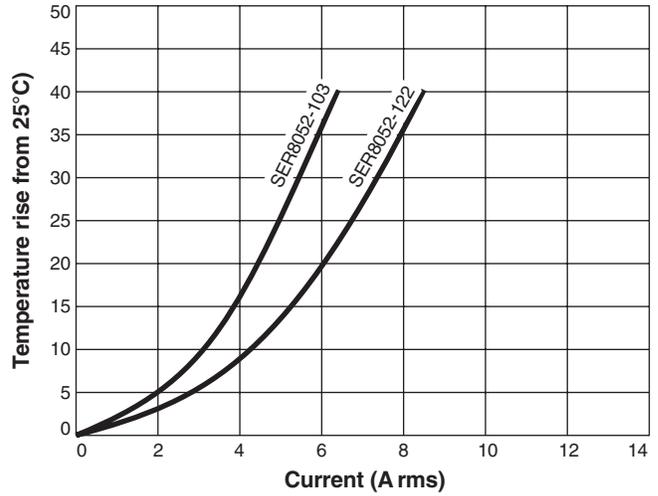


# SER80xx Shielded Power Inductors

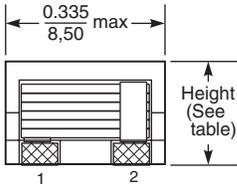
## Typical L vs Frequency



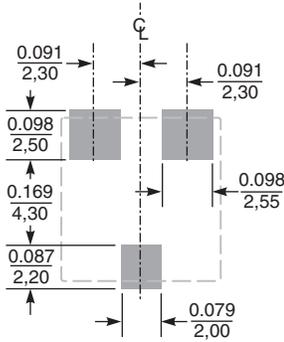
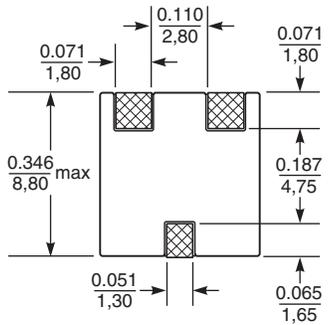
## Typical Temperature Rise vs Current



Terminal 3 is for mounting stability only.



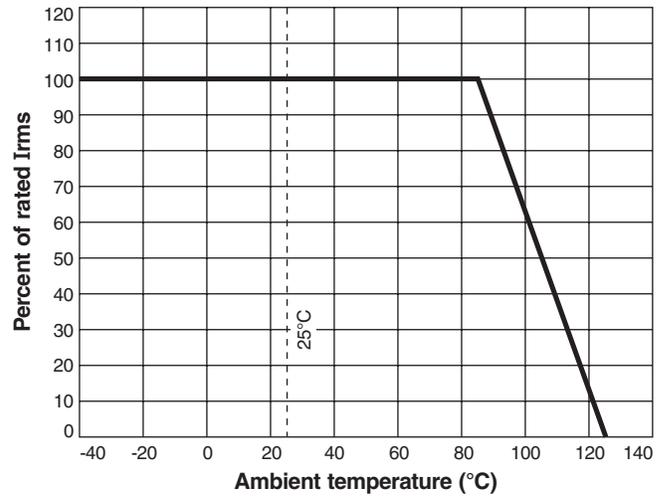
	Height max (in / mm)
SER8050	0.197 / 5,0
SER8052	0.205 / 5,2



**Recommended Land Pattern**

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

## Current Derating





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

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.