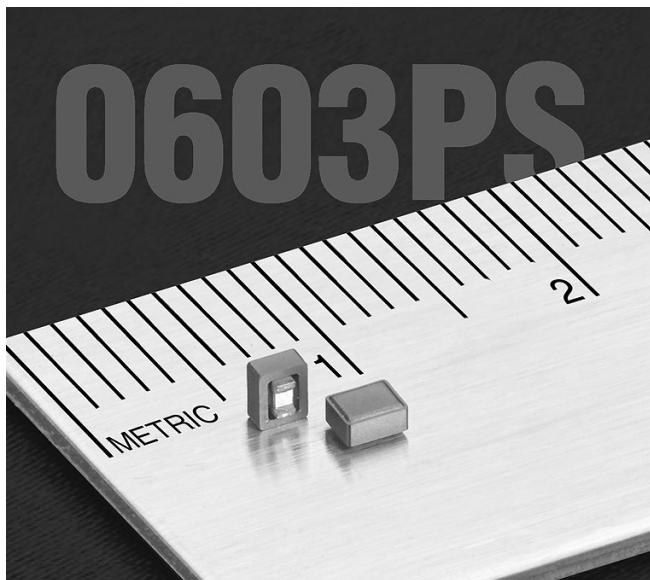




# Shielded High SRF Inductors – 0603PS



- Higher SRF than our other power inductors
- High inductance with tight tolerance
- Excellent current handling for a part this size

**Core material** Ceramic/Ferrite

**Core and winding loss** See [www.coilcraft.com/coreloss](http://www.coilcraft.com/coreloss)

**Terminations** RoHS compliant silver-palladium-platinum-glass frit.

**Weight** 26.4– 27.9 mg

**Ambient temperature** –40°C to +65°C with Irms current, +65°C to +105°C with derated current

**Storage temperature** Component: –40°C to +105°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** 2000/7" reel; 7500/13" reel Plastic tape: 8 mm wide, 0.23 mm thick, 4 mm pocket spacing, 1.8 mm pocket depth

**PCB washing** Tested with pure water or alcohol only. For other solvents, see Doc787\_PCB\_Washing.pdf.

| Part number <sup>1</sup> | L ±10% <sup>2</sup><br>(μH) | Q min <sup>3</sup><br>at 1 MHz | DCR <sup>4</sup><br>max<br>(Ohms) | SRF <sup>5</sup><br>typ<br>(MHz) | Isat <sup>6</sup><br>(A) | Irms <sup>7</sup><br>(A) |
|--------------------------|-----------------------------|--------------------------------|-----------------------------------|----------------------------------|--------------------------|--------------------------|
| 0603PS-781KL_            | 0.78                        | 15                             | 0.24                              | 475                              | 0.55                     | 1.30                     |
| 0603PS-102KL_            | 1.0                         | 15                             | 0.26                              | 390                              | 0.40                     | 1.00                     |
| 0603PS-182KL_            | 1.8                         | 15                             | 0.54                              | 155                              | 0.39                     | 0.70                     |
| 0603PS-222KL_            | 2.2                         | 15                             | 0.75                              | 245                              | 0.33                     | 0.60                     |
| 0603PS-272KL_            | 2.7                         | 15                             | 0.75                              | 127                              | 0.33                     | 0.55                     |
| 0603PS-332KL_            | 3.3                         | 15                             | 0.88                              | 72                               | 0.32                     | 0.50                     |
| 0603PS-392KL_            | 3.9                         | 15                             | 1.00                              | 72                               | 0.27                     | 0.48                     |
| 0603PS-472KL_            | 4.7                         | 15                             | 1.08                              | 64                               | 0.26                     | 0.47                     |
| 0603PS-562KL_            | 5.6                         | 15                             | 1.23                              | 51                               | 0.25                     | 0.41                     |
| 0603PS-682KL_            | 6.8                         | 15                             | 1.37                              | 39                               | 0.23                     | 0.40                     |
| 0603PS-822KL_            | 8.2                         | 20                             | 1.43                              | 30                               | 0.22                     | 0.39                     |
| 0603PS-103KL_            | 10                          | 20                             | 1.60                              | 30                               | 0.21                     | 0.38                     |
| 0603PS-153KL_            | 15                          | 20                             | 1.92                              | 22                               | 0.16                     | 0.35                     |
| 0603PS-223KL_            | 22                          | 20                             | 2.96                              | 16                               | 0.13                     | 0.27                     |
| 0603PS-333KL_            | 33                          | 20                             | 5.63                              | 12                               | 0.10                     | 0.20                     |
| 0603PS-473KL_            | 47                          | 20                             | 5.69                              | 12                               | 0.10                     | 0.18                     |

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

**0603PS-473KLC**

**Packaging:** **C** = 7" machine-ready reel. EIA-481 embossed plastic tape (2000 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 (7500 parts per full reel).

2. Inductance measured at 100 kHz, 0.1 Vrms, using a Coilcraft SMD-A fixture in an Agilent/HP 4263B LCR meter.

3. Q measured on an Agilent/HP 4291 with an Agilent/HP 16193 test fixture.

4. DCR measured on a micro-ohmmeter and a Coilcraft CCF840 test fixture.

5. SRF measured using an Agilent/HP 8753D network analyzer and a Coilcraft SMD-D test fixture.

6. DC current at which the inductance drops 10% (typ) from its value without current.

7. Current that causes a 40°C temperature rise from 25°C ambient.

8. Electrical specifications at 25°C.

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



[www.coilcraft.com](http://www.coilcraft.com)

**US** +1-847-639-6400 [sales@coilcraft.com](mailto:sales@coilcraft.com)

**UK** +44-1236-730595 [sales@coilcraft-europe.com](mailto:sales@coilcraft-europe.com)

**Taiwan** +886-2-2264 3646 [sales@coilcraft.com.tw](mailto:sales@coilcraft.com.tw)

**China** +86-21-6218 8074 [sales@coilcraft.com.cn](mailto:sales@coilcraft.com.cn)

**Singapore** + 65-6484 8412 [sales@coilcraft.com.sg](mailto:sales@coilcraft.com.sg)

**COILCRAFT** ACCURATE  
**PRECISION** REPEATABLE  
MEASUREMENTS  
SEE WEB SITE **TEST FIXTURES**

Document 266-1 Revised 03/14/12

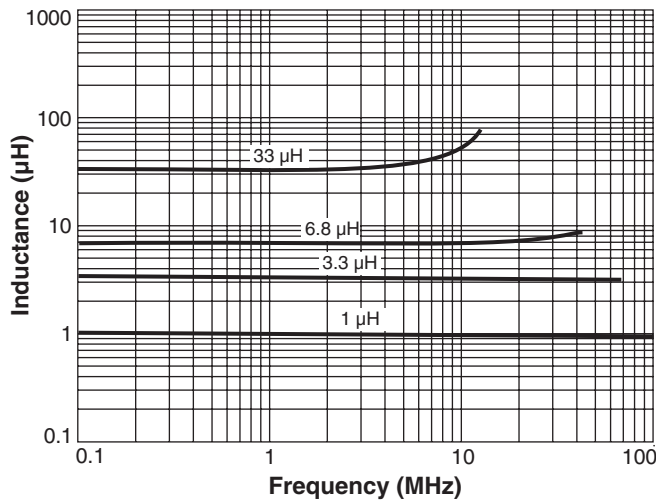
© Coilcraft Inc. 2013

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.

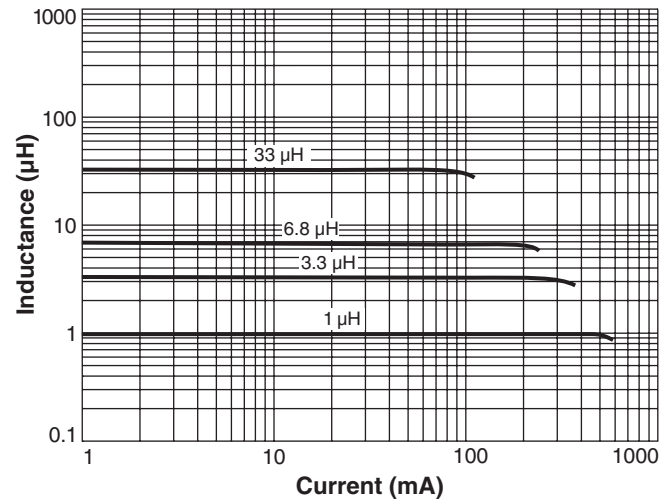


# Power Chip Inductors - 0603PS Series

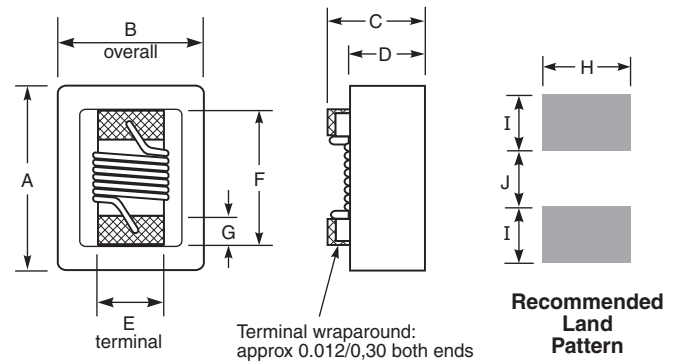
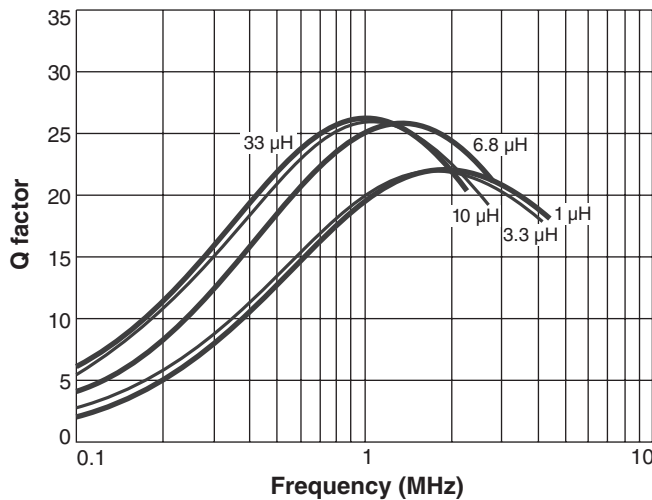
## Typical L vs Frequency



## Typical L vs Current

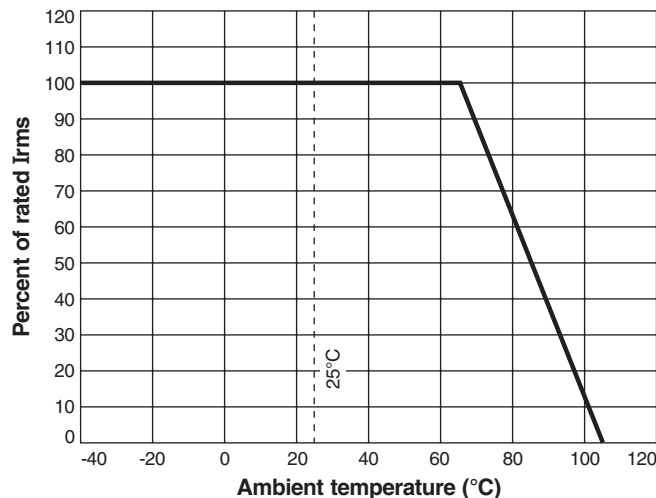


## Typical Q vs Frequency



| A     | B     | C     | D     | E     | F     | G     | H     | I     | J     |        |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| max   | max   | max   |       |       |       |       |       |       |       | inches |
| 0.102 | 0.082 | 0.071 | 0.049 | 0.030 | 0.060 | 0.013 | 0.040 | 0.025 | 0.025 |        |
| 2,59  | 2,08  | 1,80  | 1,24  | 0,76  | 1,52  | 0,33  | 1,02  | 0,64  | 0,64  | mm     |

## Irms Derating



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 266-2 Revised 03/14/12

© Coilcraft Inc. 2013

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.

## Данный компонент на территории Российской Федерации

**Вы можете приобрести в компании MosChip.**

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

moschip.ru\_6

moschip.ru\_9