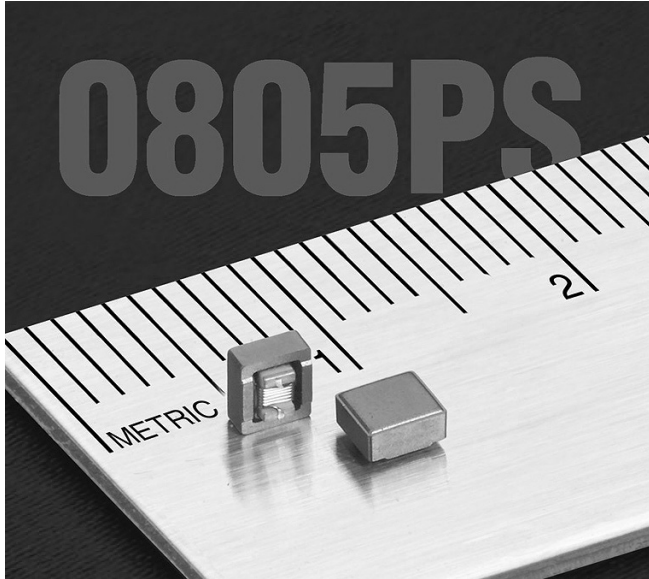




# Shielded High SRF Inductors – 0805PS



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

**Designer's Kit C348** contains 6 of each part

**Core material** Ceramic/Ferrite

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

**Environmental** RoHS compliant; halogen free optional

**Terminations** Silver-palladium-platinum-glass frit. Other terminations available at additional cost

**Weight** 57.6–62.4 mg

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

**Maximum part temperature** +105°C (ambient + temp rise) [Derating](#).

**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** 1500/7" reel; 7500/13" reel Plastic tape: 8 mm wide, 0.23 mm thick, 4 mm pocket spacing, 2.34 mm pocket depth

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787\\_PCB\\_Washing.pdf](#).

| Part number <sup>1</sup> | L <sup>2</sup><br>±10%<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) |
|--------------------------|--------------------------------|--------------------------------|-----------------------------------|----------------------------------|--------------------------|--------------------------|
| 0805PS-102KL             | 1.0                            | 21                             | 0.14                              | 340                              | 0.90                     | 1.6                      |
| 0805PS-152KL             | 1.5                            | 21                             | 0.18                              | 265                              | 0.85                     | 1.3                      |
| 0805PS-272KL             | 2.7                            | 21                             | 0.35                              | 190                              | 0.60                     | 0.88                     |
| 0805PS-332KL             | 3.3                            | 21                             | 0.50                              | 180                              | 0.55                     | 0.70                     |
| 0805PS-392KL             | 3.9                            | 21                             | 0.74                              | 165                              | 0.50                     | 0.61                     |
| 0805PS-472KL             | 4.7                            | 21                             | 0.85                              | 155                              | 0.43                     | 0.59                     |
| 0805PS-562KL             | 5.6                            | 21                             | 0.91                              | 143                              | 0.38                     | 0.57                     |
| 0805PS-682KL             | 6.8                            | 21                             | 1.37                              | 118                              | 0.32                     | 0.46                     |
| 0805PS-103KL             | 10                             | 21                             | 1.51                              | 66                               | 0.27                     | 0.43                     |
| 0805PS-153KL             | 15                             | 21                             | 2.04                              | 34                               | 0.22                     | 0.34                     |
| 0805PS-223KL             | 22                             | 25                             | 2.48                              | 22                               | 0.18                     | 0.33                     |
| 0805PS-333KL             | 33                             | 25                             | 3.00                              | 17                               | 0.16                     | 0.28                     |
| 0805PS-473KL             | 47                             | 25                             | 3.85                              | 15                               | 0.15                     | 0.26                     |
| 0805PS-683KL             | 68                             | 28                             | 4.42                              | 12                               | 0.12                     | 0.24                     |
| 0805PS-823KL             | 82                             | 30                             | 6.00                              | 12                               | 0.11                     | 0.21                     |
| 0805PS-104KL             | 100                            | 32                             | 6.96                              | 9.0                              | 0.10                     | 0.19                     |
| 0805PS-124KL             | 120                            | 32                             | 7.51                              | 7.7                              | 0.10                     | 0.18                     |
| 0805PS-154KL             | 150                            | 32                             | 8.33                              | 5.0                              | 0.08                     | 0.18                     |
| 0805PS-224KL             | 220                            | 32                             | 13.71                             | 5.0                              | 0.07                     | 0.14                     |
| 0805PS-334KL             | 330                            | 32                             | 20.53                             | 3.5                              | 0.06                     | 0.11                     |

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

**0805PS-334KLC**

**Terminations:** **L** = RoHS compliant, not halogen-free. Silver-palladium-platinum-glass frit terminations

**R** = RoHS compliant matte tin over nickel over silver-platinum-glass frit.

**Packaging:** **C** = 7" machine-ready reel. EIA-481 embossed plastic tape (1500 parts 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. Factory order only, not stocked (7500 parts per full reel).

**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 C.

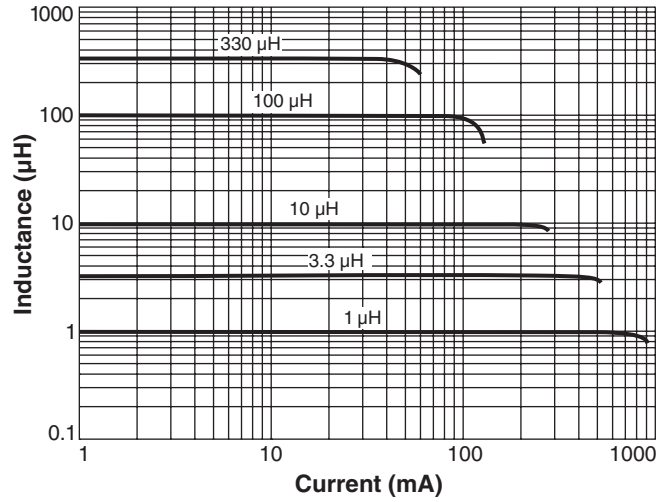
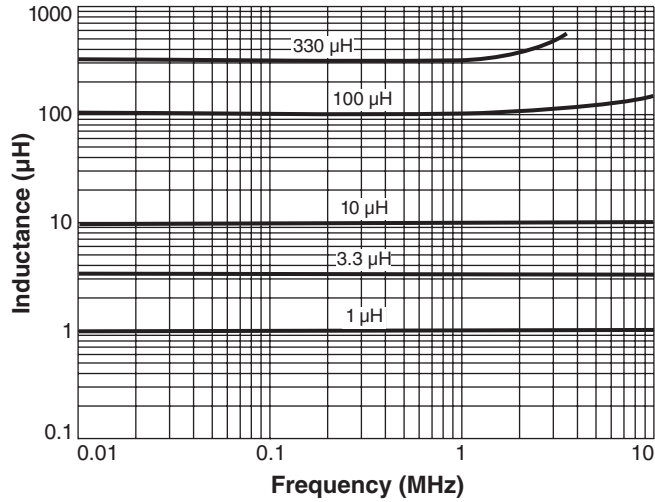
- Inductance measured at 100 kHz, 0.1 Vrms, using a Coilcraft SMD-A fixture in Agilent/HP 4263B LCR meter.
  - Q measured on an Agilent/HP 4291 with an Agilent/HP 16193 test fixture.
  - DCR measured on a micro-ohmmeter and a Coilcraft CCF840 test fixture.
  - SRF measured using an Agilent/HP 8753D network analyzer and a Coilcraft SMD-D test fixture.
  - DC current at 25°C that causes an inductance drop of 10% (typ) from its value without current. [Click for temperature derating information](#).
  - Current that causes a 40°C temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings. [Click for temperature derating information](#).
  - Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

**S-Parameter files**  
ON OUR WEB SITE  
**SPICE models**  
ON OUR WEB SITE

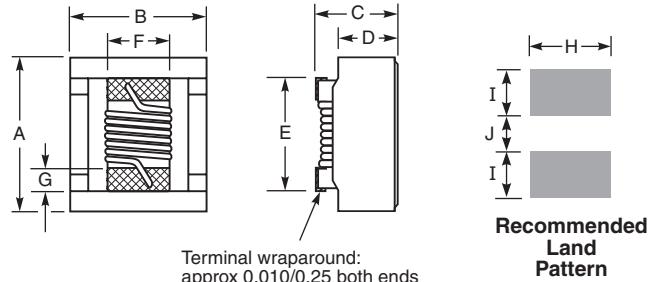
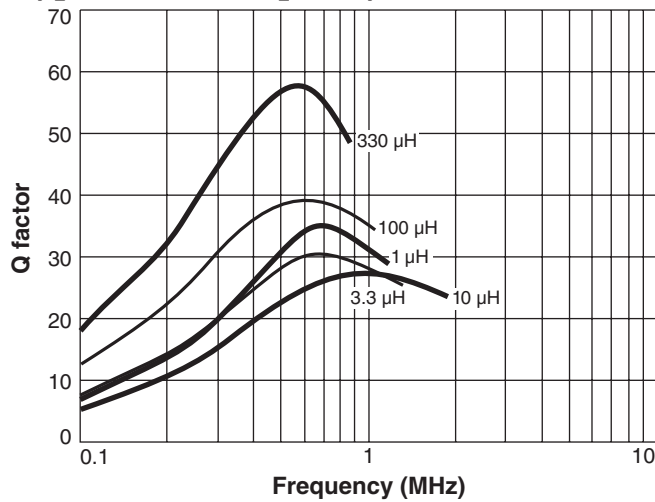


# Power Chip Inductors - 0805PS Series

## 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 |
| 0,133 | 0,118 | 0,079 | 0,053 | 0,080 | 0,050 | 0,020 | 0,070 | 0,040 | 0,030 |        |
| 3,38  | 3,00  | 2,00  | 1,35  | 2,03  | 1,27  | 0,51  | 1,78  | 1,02  | 0,76  | mm     |



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