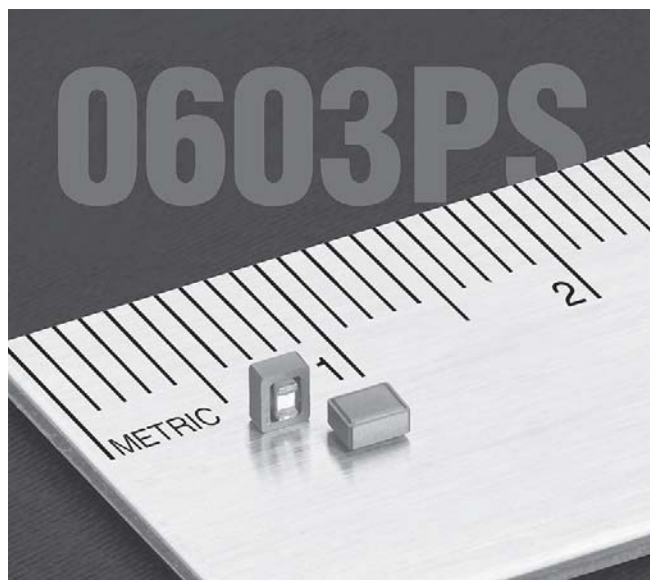




Power Chip Inductors – 0603PS Series



- Shielded power chip inductors
- Excellent current handling for a part this size

For new designs, we recommend the EPL2010, EPL2014 or LPS3010 as an alternative to this series. They all offer better current handling, lower DCR and a lower profile. The EPL series also offers a smaller footprint. We will continue to manufacture and support the 0603PS.

S-Parameter files

ON OUR WEB SITE OR CD

SPICE models

ON OUR WEB SITE OR CD

Part number ¹	L ±10% ² (μH)	Q min ³ at 1 MHz	DCR ⁴ max (Ohms)	SRF ⁵ typ (MHz)	Isat ⁶ (A)	Irms ⁷ (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 **termination** and **packaging** codes:

0603PS-473KL C

Termination: L = RoHS compliant silver-palladium-platinum-glass frit.
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 (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).

- Inductance measured at 100 kHz, 0.1 Vrms, using a Coilcraft SMD-A fixture in an 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 which the inductance drops 10% (typ) from its value without current.
 - Current that causes a 40°C temperature rise from 25°C ambient.
 - Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

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Specifications subject to change without notice.
Please check our website for latest information.

Document 266-1 Revised 08/17/09

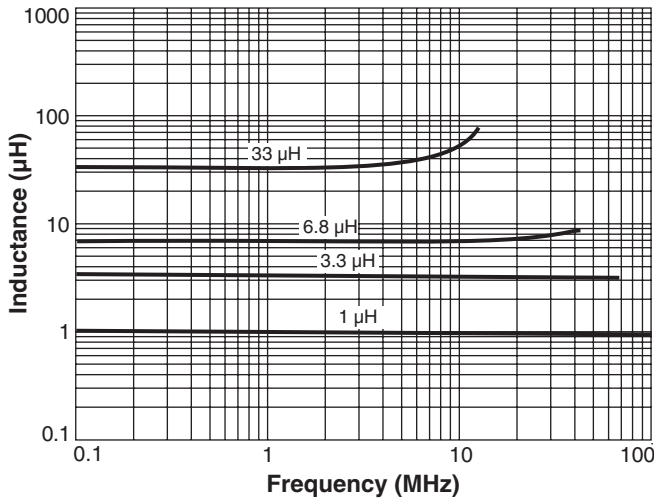
1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

E-mail info@coilcraft.com Web http://www.coilcraft.com

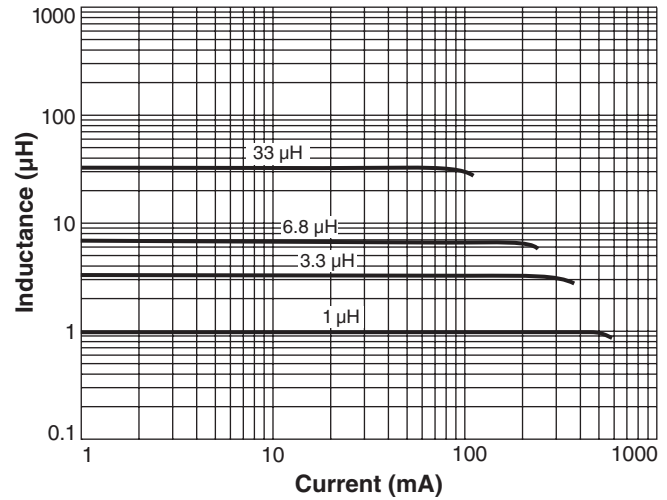


Power Chip Inductors - 0603PS Series

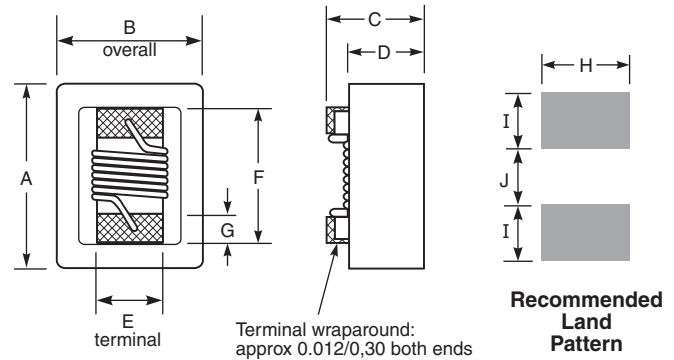
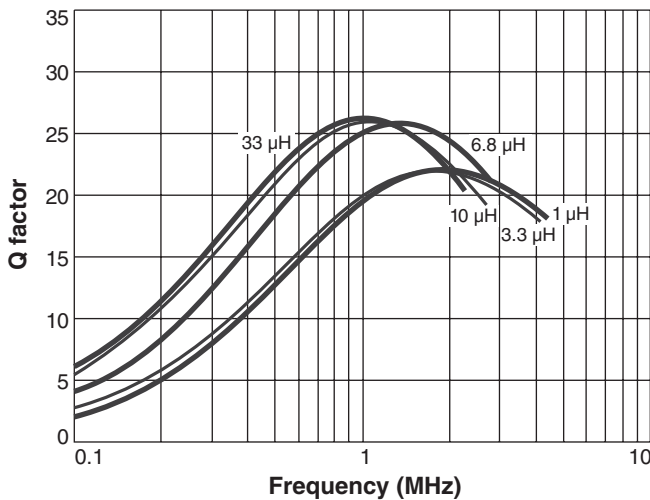
Typical L vs Frequency



Typical L vs Current

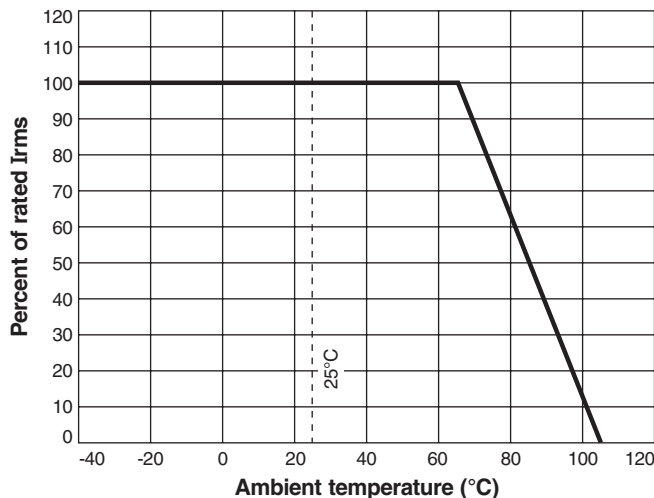


Typical Q vs Frequency



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



Core material Ceramic/Ferrite

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

Terminations RoHS compliant silver-palladium-platinum-glass frit. Other terminations available at additional cost.

Weight 26.4 – 27.9 mg

Ambient temperature -40°C to +65°C with I_{rms} current, +65°C to +105°C with derated current

Storage temperature Component: -40°C to +105°C.

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

Temperature Coefficient of Inductance (TCL) +50 to +150 ppm/°C

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 Only pure water or alcohol recommended

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Please check our website for latest information.

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