



Power Chip Inductors - 0603PS Series



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

Designer's Kit C346 contains 6 of each part

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 Irms current, +65°C to +105°C with derated current

Storage temperature Component: –40°C to +105°C. Packaging: –55°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)

Mean Time Between Failures (MTBF) 26,315,789 hours

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

Part number ¹	L ±10% ² (µH)	Qmin 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-473K L 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.
- See Qualification Standards section for environmental and test data. Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

COILCRAFT ACCURATE
PRECISION REPEATABLE
MEASUREMENTS
SEE INDEX **TEST FIXTURES**

Coilcraft[®]

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

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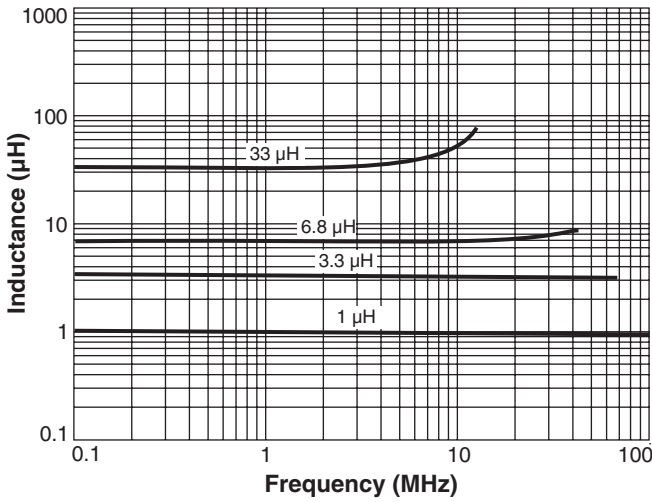
E-mail info@coilcraft.com Web <http://www.coilcraft.com>



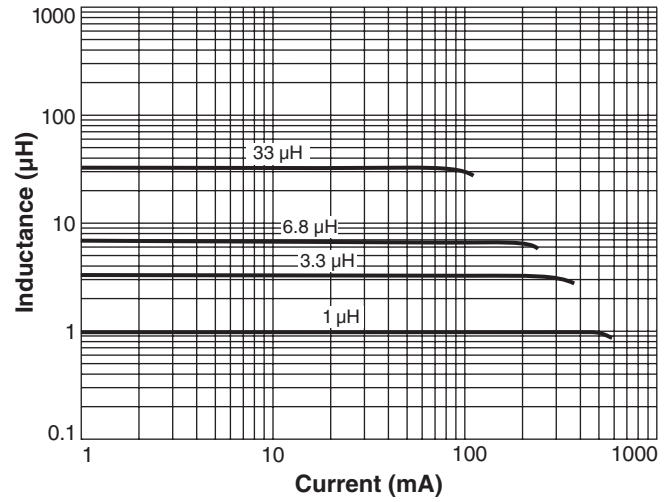
Power Chip Inductors - 0603PS Series

S-Parameter files
ON OUR WEB SITE OR CD
SPICE models
ON OUR WEB SITE OR CD

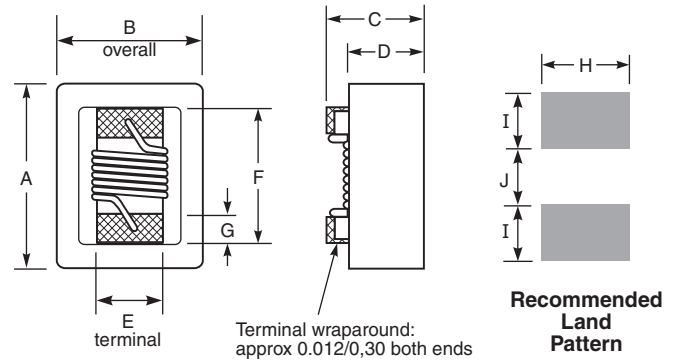
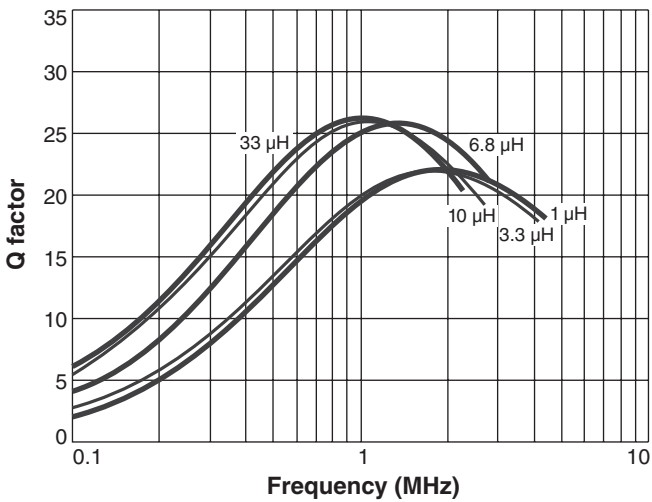
Typical L vs Frequency



Typical L vs Current

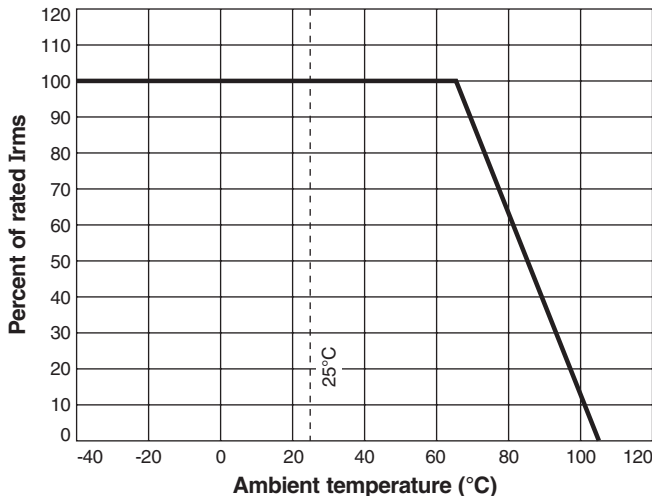


Typical Q vs Frequency



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



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