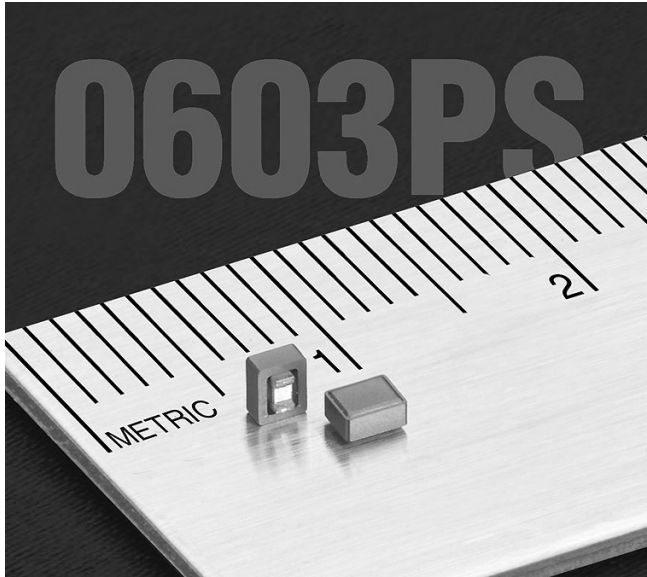




Shielded High SRF Inductors – 0603PS



- 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

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

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.
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 ¹	$L \pm 10\%^2$ (μH)	Q_{min}^3 at 1 MHz	DCR ⁴ max (Ohms)	SRF ⁵ typ (MHz)	I_{sat}^6 (A)	I_{rms}^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 **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

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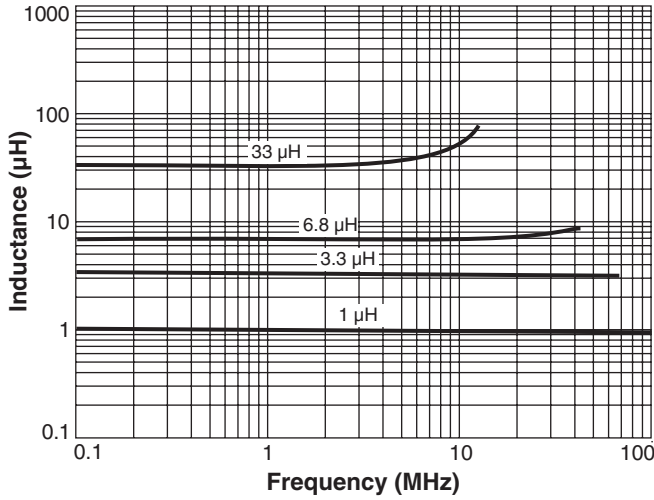
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COILCRAFT ACCURATE
PRECISION REPEATABLE
MEASUREMENTS
SEE WEB SITE **TEST FIXTURES**

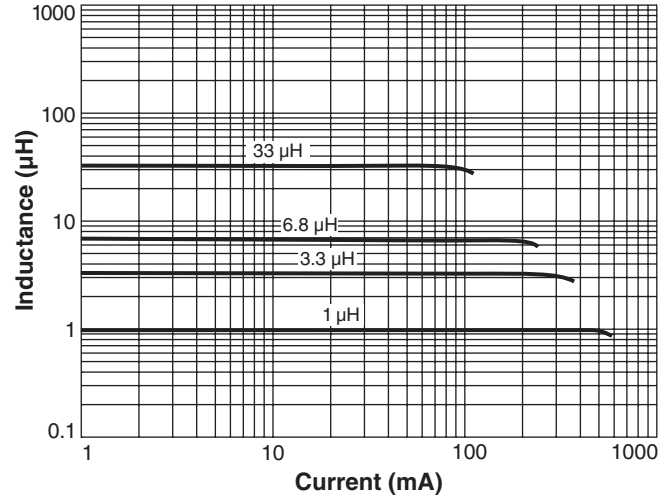


Power Chip Inductors - 0603PS Series

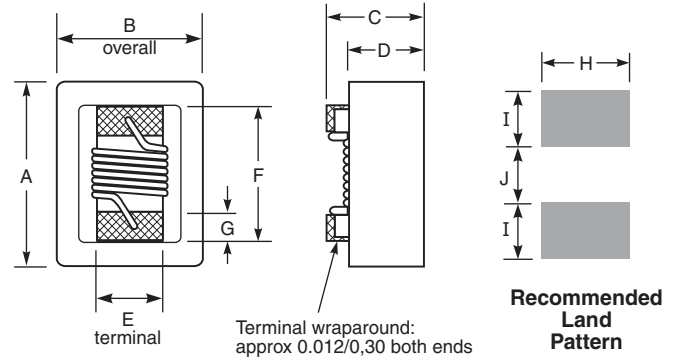
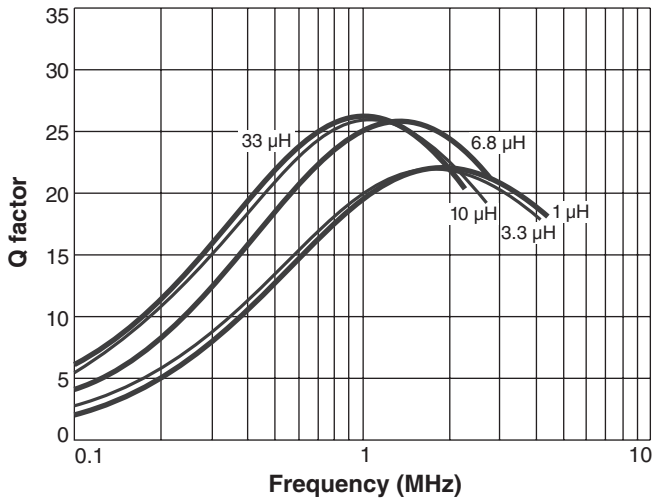
Typical L vs Frequency



Typical L vs Current

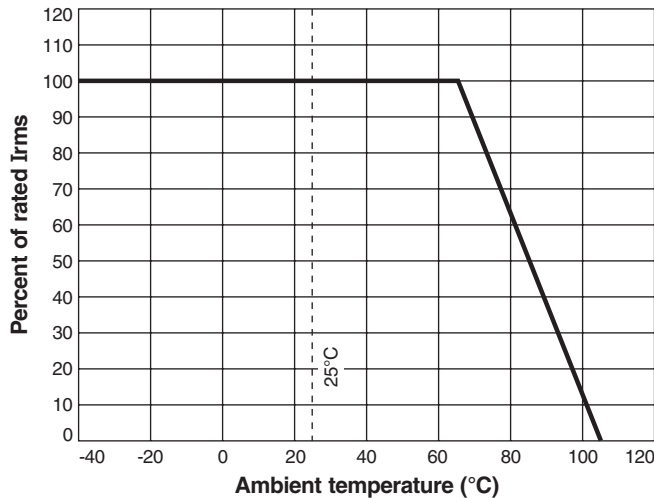


Typical Q vs Frequency



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



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