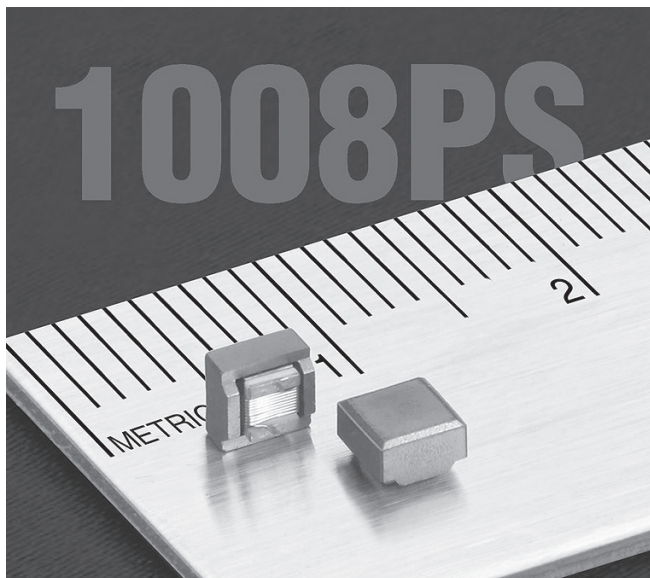




Shielded High SRF Inductors – 1008PS



- 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 122– 132 mg

Ambient temperature –40°C to +105°C with Irms current, +105°C to +145°C with derated current

Storage temperature Component: –40°C to +145°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 750/7" reel; 2500/13" reel Plastic tape: 12 mm wide, 0.3 mm thick, 8 mm pocket spacing, 3.3 mm pocket depth

PCB washing Only pure water or alcohol recommended

Part number ¹	Inductance $\pm 10\%^2$ (μ H)	Q min ³	DCR ⁴ max (Ohms)	SRF ⁵ typ (MHz)	Isat (A) ⁶			Irms (A) ⁷	
					10% drop	20% drop	30% drop	20°C rise	40°C rise
1008PS-102KL	1.0	35	0.05	387	3.5	3.9	4.2	1.4	2.0
1008PS-152KL	1.5	35	0.06	276	2.7	3.2	3.5	1.4	2.0
1008PS-182KL	1.8	35	0.09	253	2.3	2.7	3.0	0.98	1.4
1008PS-222KL	2.2	36	0.10	228	2.4	2.8	3.1	1.2	1.7
1008PS-272KL	2.7	38	0.14	207	1.6	2.0	2.3	1.0	1.4
1008PS-332KL	3.3	26	0.84	199	1.5	1.6	1.6	0.51	0.67
1008PS-392KL	3.9	38	0.26	185	1.5	1.8	2.0	0.82	1.1
1008PS-472KL	4.7	38	0.35	160	1.3	1.6	1.7	0.70	0.95
1008PS-562KL	5.6	38	0.36	150	1.5	1.7	1.8	0.66	0.87
1008PS-682KL	6.8	38	0.58	120	1.3	1.5	1.6	0.45	0.76
1008PS-103KL	10	38	0.92	105	0.84	1.0	1.1	0.40	0.59
1008PS-153KL	15	38	1.15	35	0.81	0.87	0.90	0.36	0.51
1008PS-223KL	22	40	1.40	26	0.67	0.75	0.79	0.33	0.44
1008PS-333KL	33	45	1.61	20	0.53	0.61	0.68	0.30	0.42
1008PS-393KL	39	45	1.85	16	0.49	0.56	0.60	0.28	0.39
1008PS-473KL	47	45	2.5	19	0.47	0.52	0.54	0.23	0.31
1008PS-683KL	68	45	3.8	12	0.38	0.42	0.45	0.21	0.26
1008PS-823KL	82	45	4.3	9.0	0.33	0.38	0.42	0.18	0.26
1008PS-104KL	100	45	5.8	7.0	0.35	0.38	0.39	0.16	0.20
1008PS-124KL	120	50	6.3	7.0	0.30	0.33	0.35	0.14	0.20
1008PS-154KL	150	50	7.5	5.8	0.27	0.30	0.33	0.13	0.18
1008PS-224KL	220	55	10.0	5.0	0.21	0.24	0.27	0.13	0.17
1008PS-334KL	330	55	11.5	3.8	0.19	0.21	0.23	0.11	0.15
1008PS-474KL	470	55	16.3	3.1	0.14	0.17	0.19	0.10	0.13
1008PS-564KL	560	55	18.1	2.8	0.13	0.15	0.17	0.093	0.12
1008PS-684KL	680	55	24.0	2.5	0.11	0.15	0.17	0.073	0.11
1008PS-824KL	820	45	26.0	1.5	0.10	0.12	0.13	0.073	0.10
1008PS-105KL	1000	45	29.0	2.0	0.11	0.13	0.14	0.070	0.10

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

1008PS-105KLC

Packaging: C= 7" machine-ready reel. EIA-481 embossed plastic tape (750 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. Factory order only, not stocked (2500 parts per full reel).

2. Inductance measured at 100 kHz, 0.1 Vrms, using Coilcraft SMD-A fixture in Agilent/HP 4263B impedance analyzer or equivalent.

3. Q measured at 1 MHz using an Agilent/HP 16193 test fixture and an Agilent/HP 4291 or equivalent.

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

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

6. DC current at which the inductance drops the specified amount from its value without current.

7. Current that causes the specified temperature rise from 25°C ambient.

8. Electrical specifications at 25°C.

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



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Document 219-1 Revised 03/14/12

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This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check out web site for latest information.



Power Chip Inductors – 1008PS Series

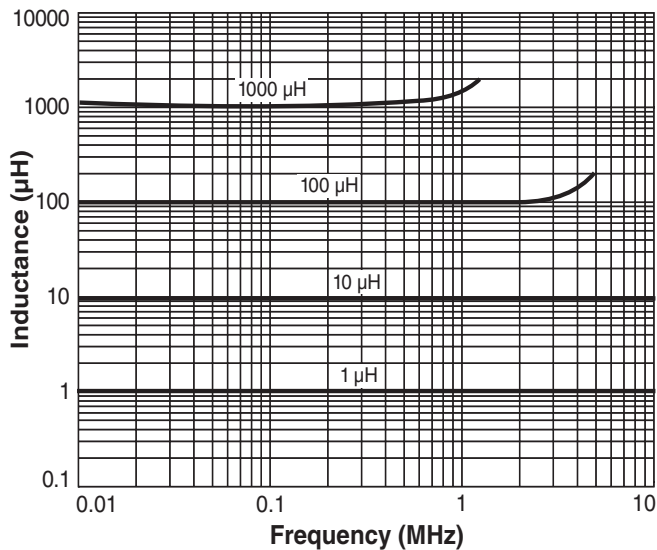
S-Parameter files

ON OUR WEB SITE

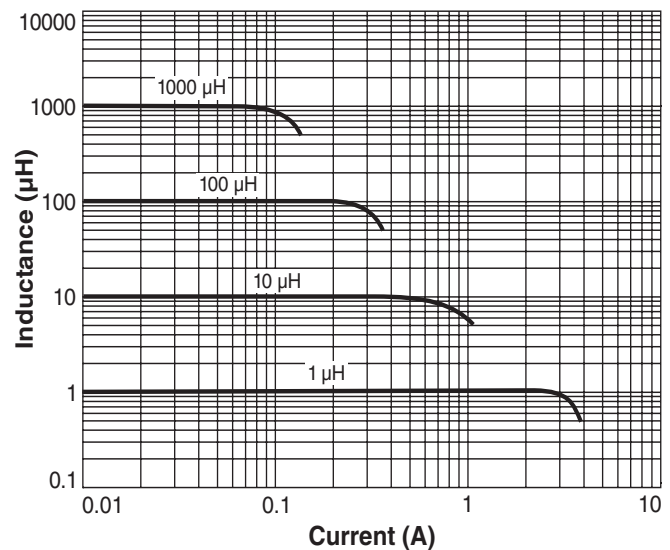
SPICE models

ON OUR WEB SITE

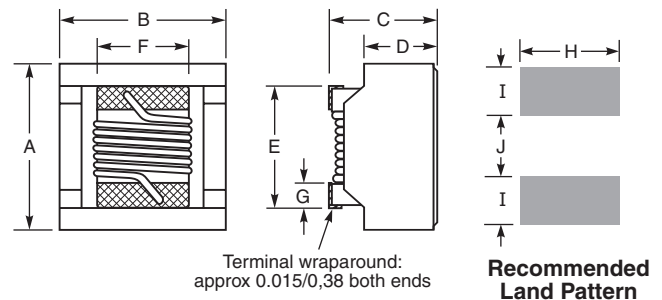
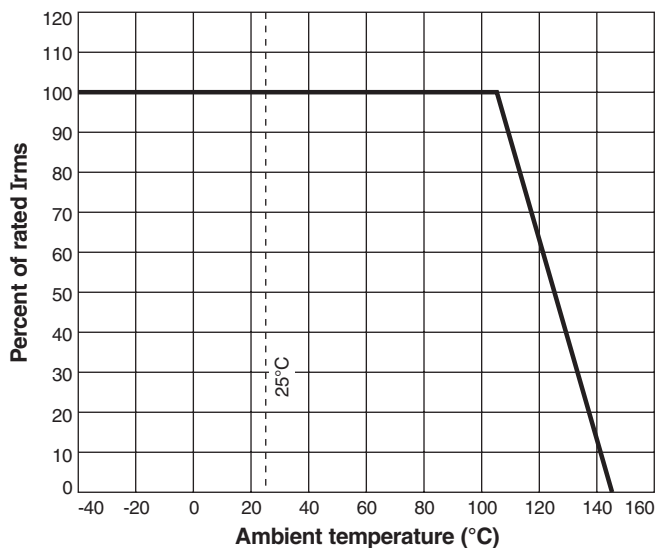
Typical L vs Frequency



Typical L vs Current



Irms Derating



A	B	C	D	E	F	G	H	I	J	
max	max	max	max	max	max	typ				inches
0.150	0.149	0.108	0.070	0.102	0.084	0.020	0.100	0.040	0.050	
3,81	3,78	2,74	1,78	2,59	2,13	0,51	2,54	1,02	1,27	mm