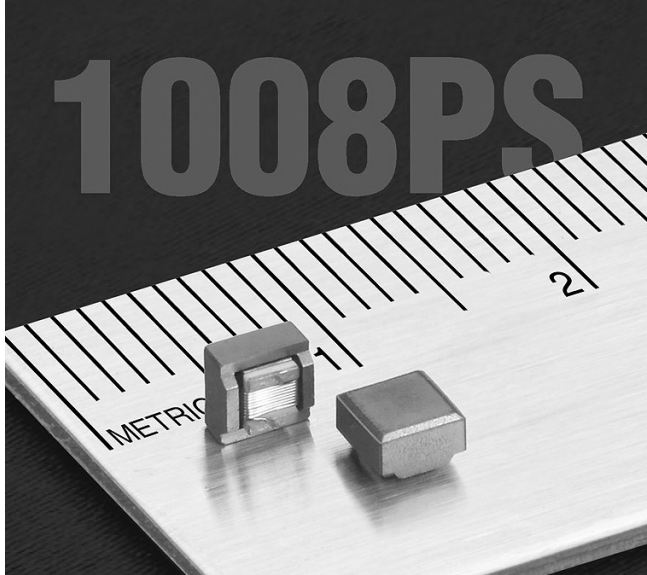




Shielded High SRF Inductors – 1008PS



- 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

Environmental RoHS compliant; halogen free optional

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

Weight 122– 132 mg

Ambient temperature –40°C to +105°C with (40°C rise) Irms current.

Maximum part temperature +145°C (ambient + temp rise). [Derating](#).

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 Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787_PCB_Washing.pdf](#).

Part number ¹	Inductance ±10% ² (μH)	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

- When ordering, specify **termination** and **packaging** codes:

1008PS-105KLC

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 (750 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 (2500 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 Coilcraft SMD-A fixture in Agilent/HP 4263B impedance analyzer or equivalent.
- Q measured at 1 MHz using an Agilent/HP 16193 test fixture and an Agilent/HP 4291 or equivalent.
- DCR measured on micro-ohmmeter and Coilcraft CCF840 test fixture.
- SRF measured using a Coilcraft SMD-D test fixture and an Agilent/HP 8753D network analyzer or equivalent.
- DC current at 25°C that causes the specified inductance drop from its value without current.
[Click for temperature derating information.](#)
- Current that causes the specified 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.



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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 web site for latest information.

S-Parameter files

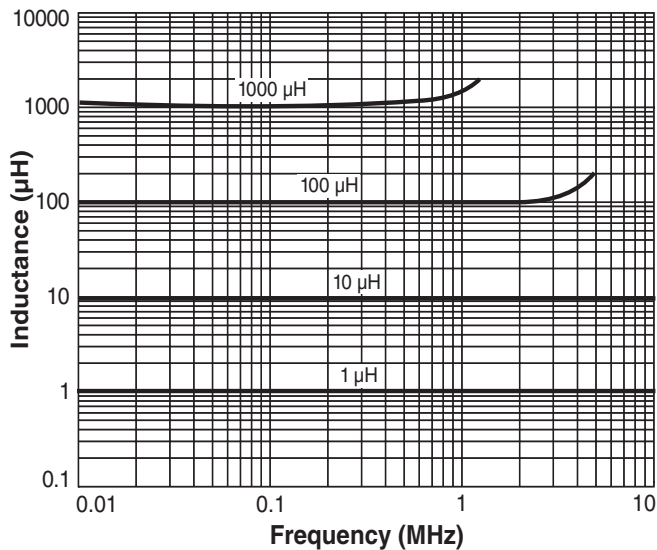
ON OUR WEB SITE

SPICE models

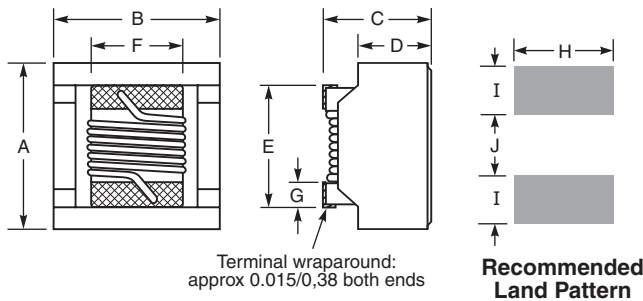
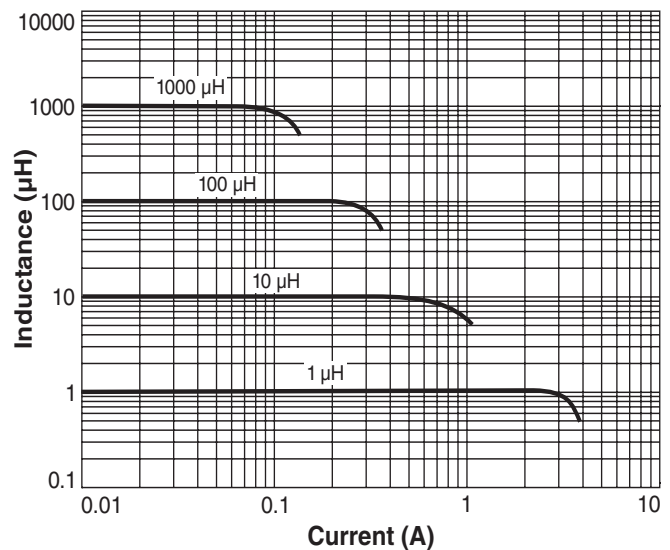
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Power Chip Inductors – 1008PS Series

Typical L vs Frequency



Typical L vs Current



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