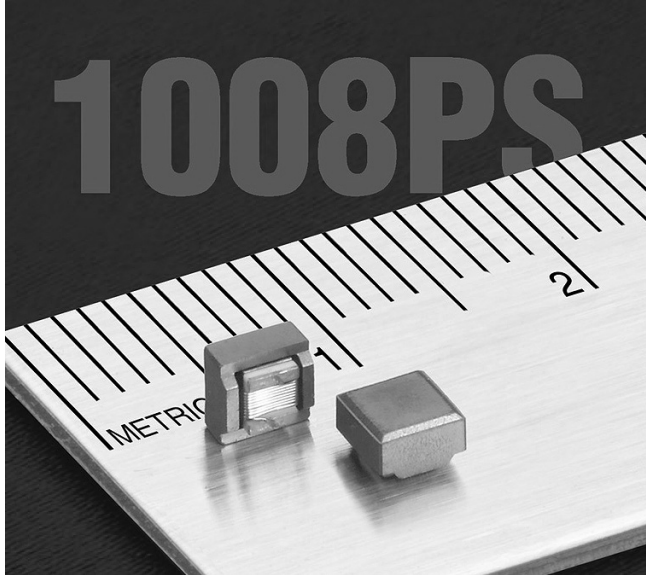




Shielded High SRF Inductors – 1008PS



- 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 (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 **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).

- 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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Power Chip Inductors – 1008PS Series

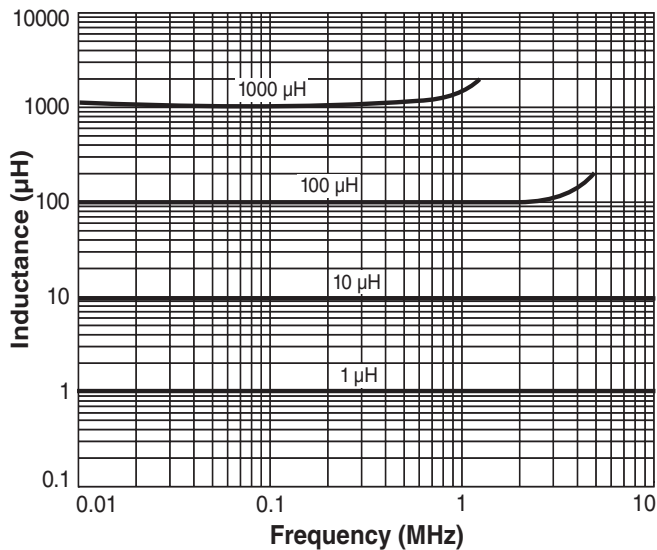
S-Parameter files

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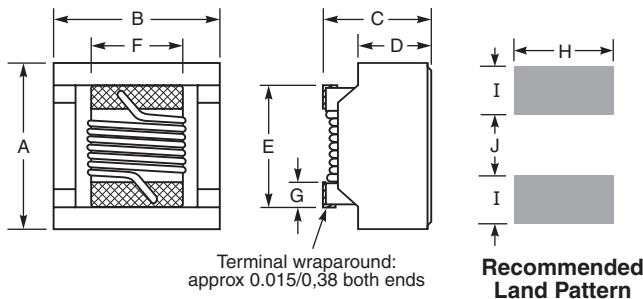
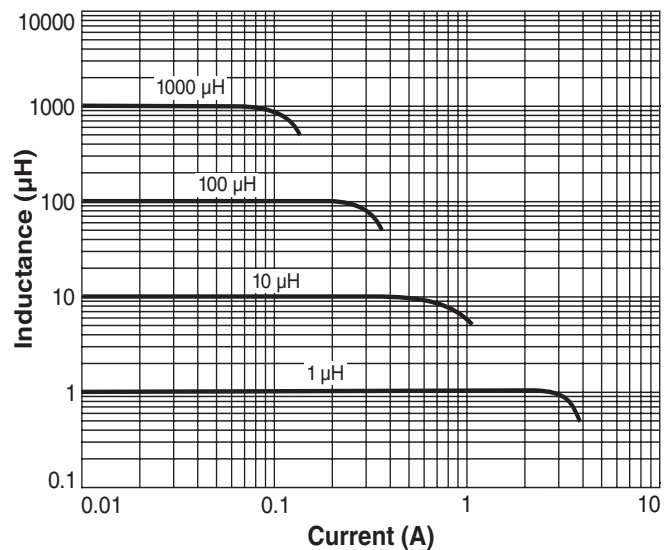
SPICE models

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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				
0.150	0.149	0.108	0.070	0.102	0.084	0.020	0.100	0.040	0.050	inches
3,81	3,78	2,74	1,78	2,59	2,13	0,51	2,54	1,02	1,27	mm



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