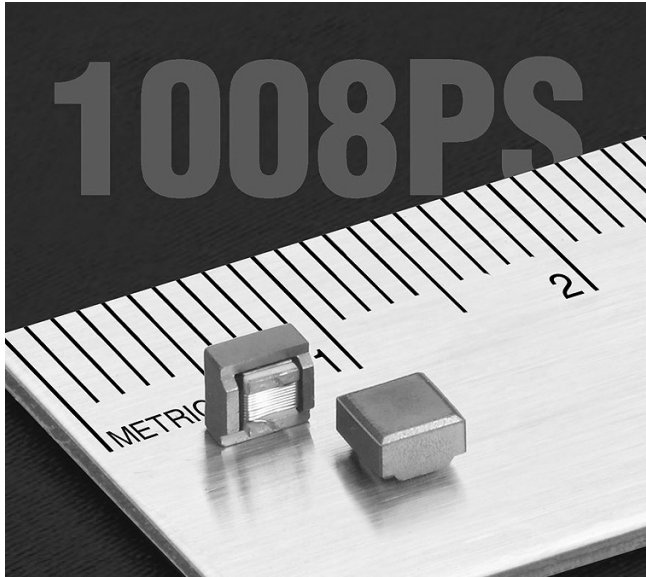




# Shielded High SRF Inductors – 1008PS



- 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](http://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

**Temperature Coefficient of Inductance (TCL)** +100 to +350 ppm/°C

**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 <sup>1</sup>	Inductance ±10% <sup>2</sup> (µH)	Q min <sup>3</sup>	DCR <sup>4</sup> max (Ohms)	SRF <sup>5</sup> typ (MHz)	Isat (A) <sup>6</sup>			Irms (A) <sup>7</sup>	
					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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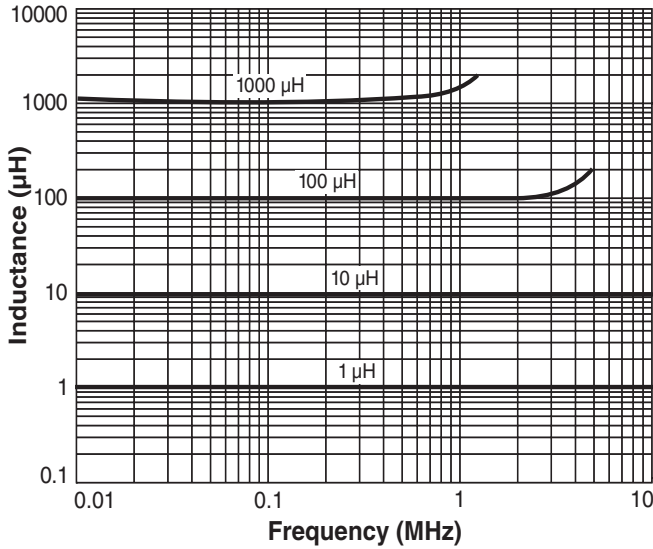
This product may not be used in medical of high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check out web site for latest information.



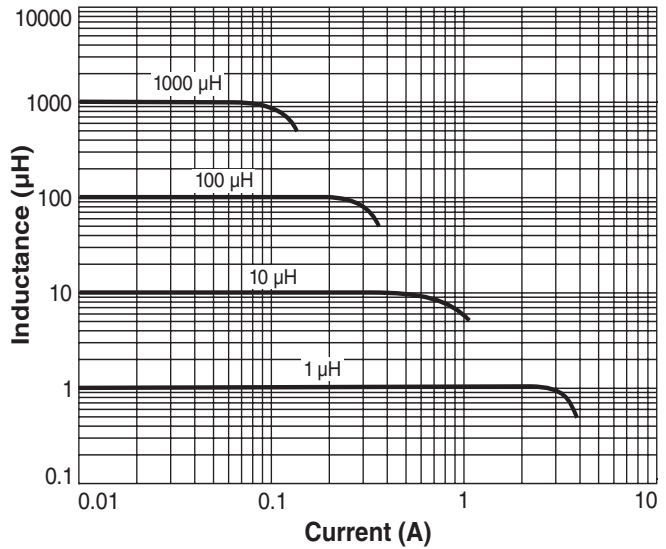
# Power Chip Inductors – 1008PS Series

**S-Parameter files**  
ON OUR WEB SITE  
**SPICE models**  
ON OUR WEB SITE

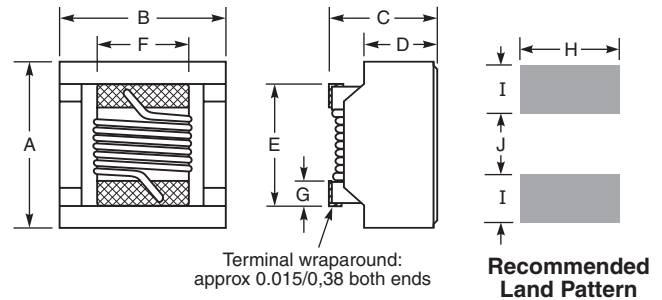
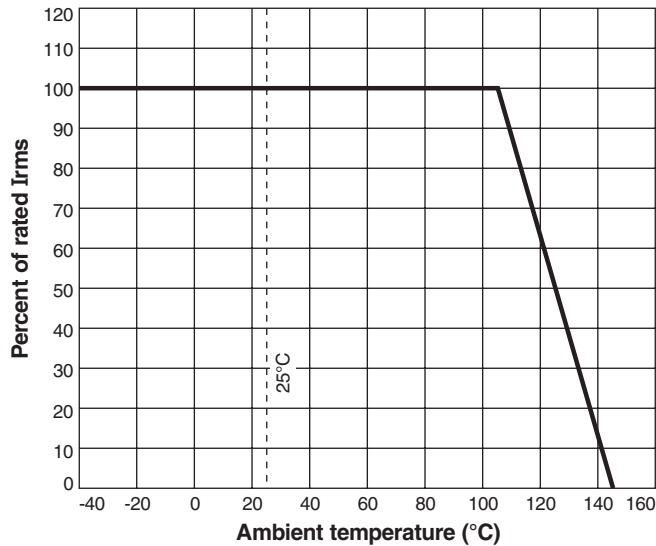
## Typical L vs Frequency



## 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



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