



Shielded Power Inductors – LPS3015



- Very low DCR; excellent current handling
- Miniature 3.0 × 3.0 mm footprint; less than 1.5 mm tall

Core material Ferrite

Core and winding loss See www.coilcraft.com/coreloss

Terminations RoHS compliant silver-palladium-platinum-glass frit. Other terminations available at additional cost.

Weight 40 – 45 mg

Ambient temperature –40°C to +85°C with Irms current, +85°C to +125°C with derated current

Storage temperature Component: –40°C to +125°C.

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 1000/7" reel; 3500/13" reel; Plastic tape: 12 mm wide, 0.26 mm thick, 8 mm pocket spacing, 1.65 mm pocket depth

Recommended pick and place nozzle OD: 3 mm; ID: ≤ 1.5 mm

PCB washing Only pure water or alcohol recommended

Part number ¹	Inductance ² ±20% (μH)	DCR max ³ (Ohms)	SRF typ ⁴ (MHz)	Isat (A) ⁵			Irms (A) ⁶	
				10% drop	20% drop	30% drop	20°C rise	40°C rise
LPS3015-102ML	1.0	0.075	190	1.8	2.0	2.1	1.4	2.0
LPS3015-152ML	1.5	0.100	140	1.8	2.1	2.2	1.3	1.7
LPS3015-182ML	1.8	0.100	135	1.5	1.7	2.1	1.1	1.4
LPS3015-222ML	2.2	0.110	110	2.0	2.0	2.1	1.1	1.4
LPS3015-332ML	3.3	0.130	90	1.4	1.5	1.5	1.0	1.4
LPS3015-472ML	4.7	0.200	79	1.1	1.2	1.2	0.90	1.2
LPS3015-682ML	6.8	0.300	58	0.83	0.86	0.89	0.68	0.90
LPS3015-103ML	10	0.440	48	0.60	0.69	0.73	0.55	0.75
LPS3015-153ML	15	0.700	35	0.58	0.61	0.62	0.44	0.59
LPS3015-183ML	18	0.750	33	0.56	0.58	0.59	0.43	0.58
LPS3015-223ML	22	0.825	30	0.48	0.49	0.50	0.42	0.57
LPS3015-333ML	33	1.30	23	0.39	0.41	0.42	0.35	0.48
LPS3015-473ML	47	1.55	17	0.36	0.38	0.39	0.30	0.40
LPS3015-683ML	68	2.35	14	0.29	0.30	0.31	0.25	0.33
LPS3015-104ML	100	3.40	11	0.24	0.25	0.26	0.19	0.26
LPS3015-124ML	120	4.65	9.0	0.21	0.22	0.22	0.17	0.23
LPS3015-154ML	150	6.25	8.0	0.19	0.20	0.20	0.15	0.20
LPS3015-184ML	180	8.60	7.5	0.16	0.17	0.17	0.13	0.175
LPS3015-224ML	220	9.50	6.0	0.15	0.16	0.16	0.11	0.155
LPS3015-334ML	330	23.0	5.0	0.10	0.11	0.11	0.070	0.095

1. Please specify **termination** and **packaging** codes:

LPS3015-333MLC

Termination: L = RoHS compliant silver-palladium-platinum-glass frit.
Special order: T = RoHS tin-silver-copper (95.5/4/0.5) or S = non-RoHS tin-lead (63/37).

Packaging: C = 7" machine-ready reel. EIA-481 embossed plastic tape (1000 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 (3500 per full reel).

2. Inductance tested at 100 kHz, 0.1 Vrms using an Agilent/HP 4192A. Inductance at 1 MHz is the same for parts with SRF ≥ 10 MHz.
 3. DCR measured on a micro-ohmmeter.
 4. SRF measured using Agilent/HP 8753ES or equivalent.
 5. DC current that causes the specified inductance drop from its value without current.
 6. Current that causes the specified temperature rise from 25°C ambient.
 7. Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

Coilcraft **Designer's Kit C392** contains samples of 0.80 μH to 33 μH parts (3 each) from LPS3008, LPS3010 and LPS3015. **Kit C401** contains samples of 0.56 μH to 33 μH parts (3 each) from LPS4012 and LPS4018. **Kit C402** contains samples of 220 μH to 3300 μH parts (3 each) from all five series. For details of kit contents and to order, contact Coilcraft or visit <http://order.coilcraft.com>.



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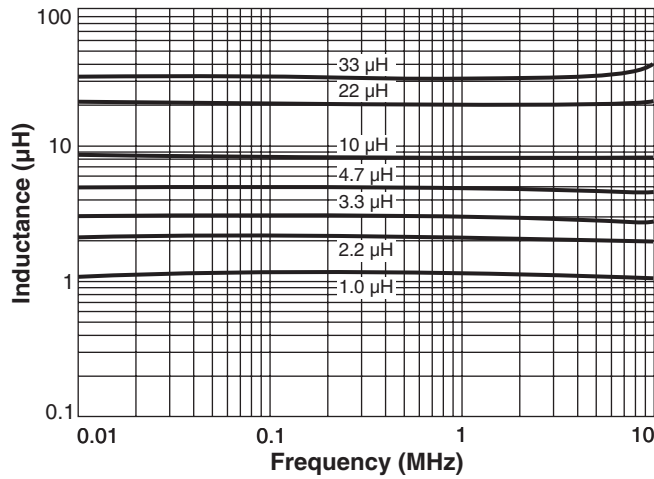
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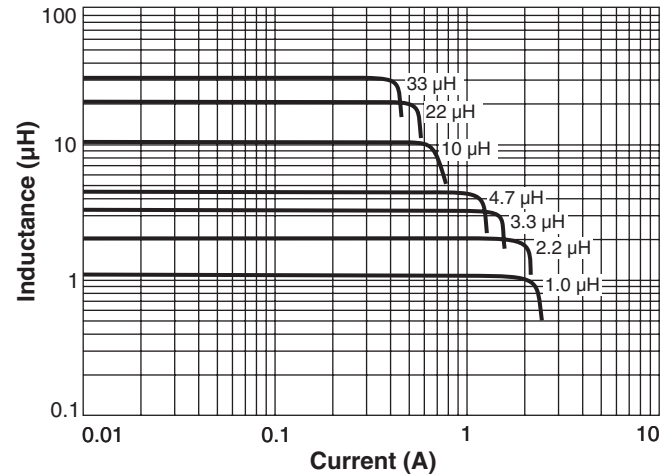
Shielded SMT Power Inductors – LPS3015 Series

SPICE models
ON OUR WEB SITE

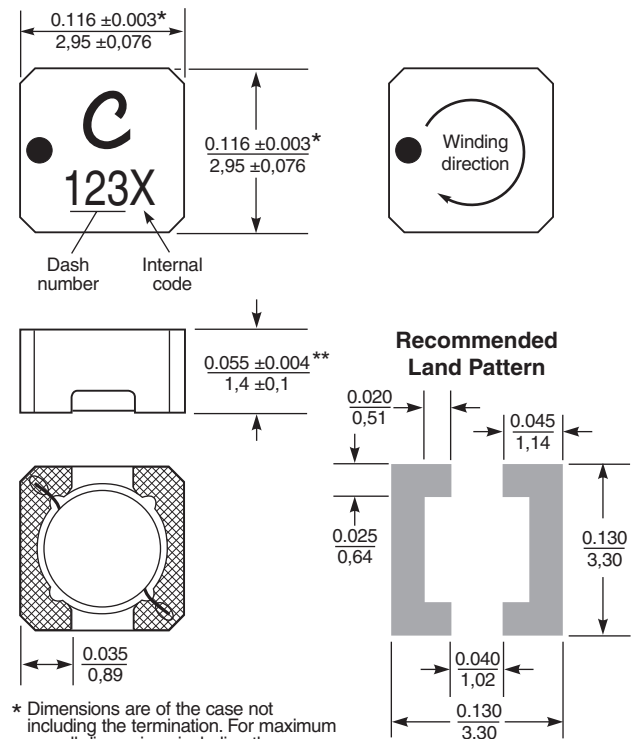
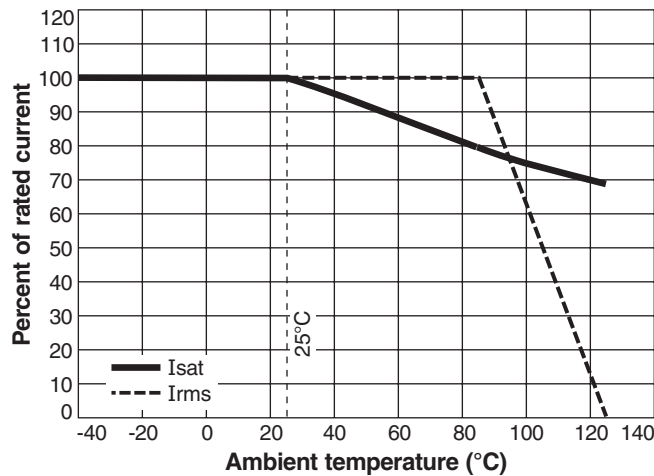
Typical L vs Frequency



Typical L vs Current



Current Derating



* Dimensions are of the case not including the termination. For maximum overall dimensions including the termination, add 0.005 in / 0.13 mm.

**For optional tin-lead and tin-silver-copper terminations, dimensions are for the mounted part. Dimensions before mounting can be an additional 0.005 inch (0.13 mm).

Dimensions are in $\frac{\text{inches}}{\text{mm}}$



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Наши преимущества:

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- Поставка более 17-ти миллионов наименований электронных компонентов;
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- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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