

Shielded Power Inductors - LPS6235

Improved version now available.

These parts are not recommended for new designs. They are replaced by new lead free and halogen free versions which are identical in form, fit and function. See www.coilcraft.com/lps6235.cfm.



- Low DCR; high current; shielded construction
- Perfect for backlight applications

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 460 – 480 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.

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 350/7" reel; 1500/13" reel Plastic tape: 16 mm wide, 0.3 mm thick, 8 mm pocket spacing, 3.68 mm pocket depth (Refer to dimensional drawing for part orientation in tape.)

Recommended pick and place nozzle OD: 6.2 mm; ID: ≤ 3.1 mm

PCB washing Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf.

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
LPS6235-682ML	6.8	0.075	55	2.6	2.7	2.8	1.30	1.90
LPS6235-822ML	8.2	0.095	48	2.5	2.6	2.7	1.30	1.85
LPS6235-103ML	10.0	0.100	37	2.3	2.4	2.5	1.28	1.80
LPS6235-123ML	12.0	0.110	29	1.9	2.2	2.3	1.25	1.75
LPS6235-153ML	15.0	0.125	25	1.9	2.0	2.0	1.22	1.70
LPS6235-183ML	18.0	0.140	24	1.7	1.8	1.9	1.20	1.65
LPS6235-223ML	22.0	0.145	24	1.6	1.7	1.7	1.10	1.60
LPS6235-333ML	33.0	0.180	16	1.3	1.4	1.5	1.00	1.30
LPS6235-473ML	47.0	0.245	13	1.1	1.2	1.2	0.80	1.15
LPS6235-563ML	56.0	0.280	12	1.0	1.0	1.1	0.75	1.07
LPS6235-683ML	68.0	0.345	10.8	0.90	0.94	0.96	0.73	1.00
LPS6235-823ML	82.0	0.315	10.0	0.46	0.52	0.55	0.72	0.95
LPS6235-104ML	100.0	0.375	9.0	0.46	0.52	0.54	0.70	0.90
LPS6235-124ML	120.0	0.435	8.3	0.44	0.48	0.51	0.60	0.80
LPS6235-154ML	150.0	0.535	7.3	0.37	0.43	0.45	0.53	0.73
LPS6235-224ML	220.0	0.820	5.6	0.31	0.36	0.37	0.45	0.64
LPS6235-334ML	330.0	1.20	4.4	0.26	0.29	0.30	0.40	0.50
LPS6235-474ML	470.0	1.60	3.6	0.22	0.25	0.26	0.32	0.43
LPS6235-564ML	560.0	2.00	3.1	0.20	0.22	0.23	0.29	0.38
LPS6235-684ML	680.0	2.20	2.8	0.17	0.19	0.21	0.28	0.37
LPS6235-824ML	820.0	2.70	2.5	0.16	0.18	0.19	0.26	0.33
LPS6235-105ML	1000.0	3.40	2.2	0.14	0.17	0.18	0.24	0.30
LPS6235-155ML	1500.0	4.60	1.9	0.12	0.13	0.14	0.19	0.26
LPS6235-185ML	1800.0	5.42	1.7	0.11	0.12	0.13	0.18	0.23
LPS6235-225ML	2200.0	6.70	1.5	0.090	0.11	0.11	0.16	0.22
LPS6235-335ML	3300.0	9.50	1.1	0.080	0.090	0.10	0.14	0.180
LPS6235-475ML	4700.0	14.5	0.94	0.070	0.077	0.084	0.11	0.150
LPS6235-565ML	5600.0	16.4	0.86	0.060	0.070	0.080	0.10	0.130
LPS6235-685ML	6800.0	21.4	0.80	0.057	0.065	0.069	0.090	0.120
LPS6235-825ML	8200.0	24.5	0.70	0.052	0.060	0.067	0.085	0.115
LPS6235-106ML	10000.0	29.5	0.61	0.050	0.055	0.060	0.075	0.095

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

LPS6235-106MLC

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 (350 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 (1500 parts per full reel).

2. Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc using an Agilent/HP 4192A.

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.

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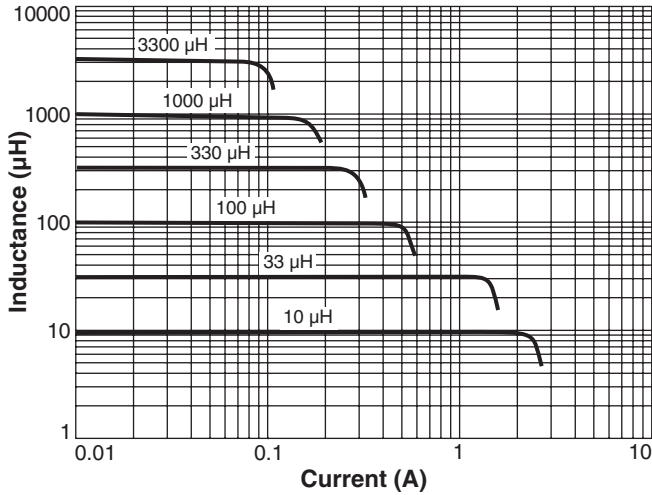
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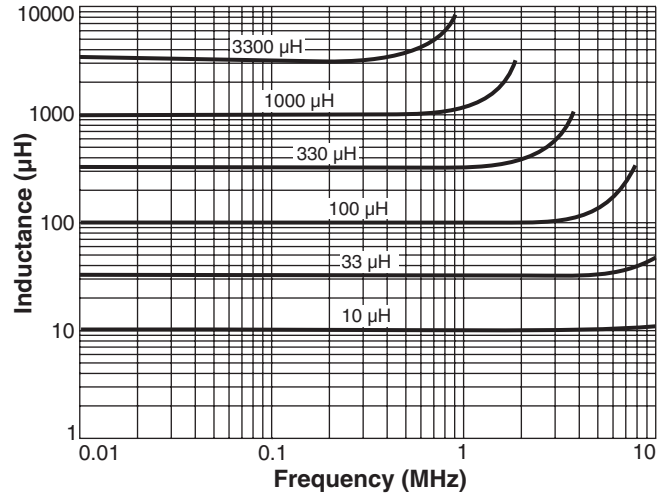


Shielded SMT Power Inductors – LPS6235 Series

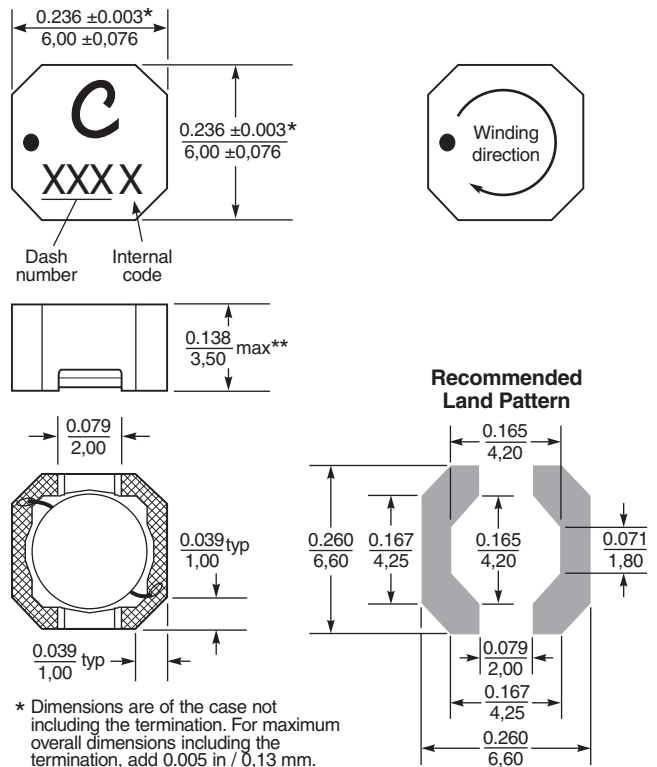
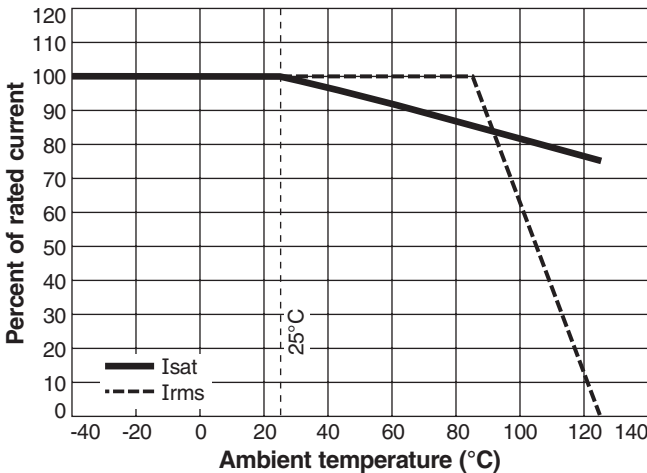
Typical L vs Current



Typical L vs Frequency



Typical Current Derating



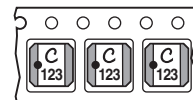
* Dimensions are of the case not including the termination. For maximum overall dimensions including the termination, add 0.005 in / 0,13 mm.

**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 $\frac{\text{inches}}{\text{mm}}$

Packaging 350/7" reel; 1500/13" reel Plastic tape: 16 mm wide, 0.3 mm thick, 8 mm pocket spacing, 3.68 mm pocket depth

Orientation of parts in packaging tape



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