Shielded Power Inductors – LP6235



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

Designer's Kit C345 contains 3 each of all values
Core material Ferrite
Core and winding loss
Environmental RoHS compliant, halogen free
Terminations RoHS compliant matte tin over nickel over silver. Other terminations available at additional cost.
Weight 460 – 480 mg
Ambient temperature –40°C to +85°C with (40°C rise) Irms current.
Maximum part temperature +125°C (ambient + temp rise).
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, 12 mm pocket spacing, 3.68 mm pocket depth
Recommended pick and place nozzle OD: 6.2 mm; ID: ≤ 3.1 mm
PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash.

Part number	Inductance ±20% (µH)	DCR max (Ohms)	SRF typ (MHz)	Isat (A) 10% drop	Isat (A) 20% drop	Isat (A) 30% drop	Irms (A) 20°C rise	Irms (A) 40°C rise
LP6235-682MR_	6.8	0.075	55	2.6	2.7	2.8	1.30	1.90
LP6235-822MR_	8.2	0.095	48	2.5	2.6	2.7	1.30	1.85
LP6235-103MR_	10.0	0.100	37	2.3	2.4	2.5	1.28	1.80
LP6235-123MR_	12.0	0.110	29	1.9	2.2	2.3	1.25	1.75
LP6235-153MR_	15.0	0.125	25	1.9	2.0	2.0	1.22	1.70
LP6235-183MR_	18.0	0.140	24	1.7	1.8	1.9	1.20	1.65
LP6235-223MR_	22.0	0.145	24	1.6	1.7	1.7	1.10	1.60
LP6235-333MR_	33.0	0.180	16	1.3	1.4	1.5	1.00	1.30
LP6235-473MR_	47.0	0.245	13	1.1	1.2	1.2	0.80	1.15
LP6235-563MR_	56.0	0.280	12	1.0	1.0	1.1	0.75	1.07
LP6235-683MR_	68.0	0.345	10.8	0.90	0.94	0.96	0.73	1.00
LP6235-823MR_	82.0	0.315	10.0	0.46	0.52	0.55	0.72	0.95
LP6235-104MR_	100.0	0.375	9.0	0.46	0.52	0.54	0.70	0.90
LP6235-124MR_	120.0	0.435	8.3	0.44	0.48	0.51	0.60	0.80
LP6235-154MR_	150.0	0.535	7.3	0.37	0.43	0.45	0.53	0.73
LP6235-224MR_	220.0	0.820	5.6	0.31	0.36	0.37	0.45	0.64
LP6235-334MR_	330.0	1.20	4.4	0.26	0.29	0.30	0.40	0.50
LP6235-474MR_	470.0	1.60	3.6	0.22	0.25	0.26	0.32	0.43
LP6235-564MR_	560.0	2.00	3.1	0.20	0.22	0.23	0.29	0.38
LP6235-684MR_	680.0	2.20	2.8	0.17	0.19	0.21	0.28	0.37
LP6235-824MR_	820.0	2.70	2.5	0.16	0.18	0.19	0.26	0.33
LP6235-105MR_	1000.0	3.40	2.2	0.14	0.17	0.18	0.24	0.30
LP6235-155MR_	1500.0	4.60	1.9	0.12	0.13	0.14	0.19	0.26
LP6235-185MR_	1800.0	5.42	1.7	0.11	0.12	0.13	0.18	0.23
LP6235-225MR_	2200.0	6.70	1.5	0.090	0.11	0.11	0.16	0.22
LP6235-335MR_	3300.0	9.50	1.1	0.080	0.090	0.10	0.14	0.180
LP6235-475MR_	4700.0	14.5	0.94	0.070	0.077	0.084	0.11	0.150
LP6235-565MR_	5600.0	16.4	0.86	0.060	0.070	0.080	0.10	0.130
LP6235-685MR_	6800.0	21.4	0.80	0.057	0.065	0.069	0.090	0.120
LP6235-825MR_	8200.0	24.5	0.70	0.052	0.060	0.067	0.085	0.115
LP6235-106MR_	10000.0	29.5	0.61	0.050	0.055	0.060	0.075	0.095

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

LP6235-106MRC

Termination: **R** = RoHS compliant matte tin over nickel over silver. Special order, added cost: **Q** = RoHS tin-silver-copper (95.5/4/0.5) or **P** = 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 at 25°C that causes the specified inductance drop from its value without current.
6. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.
7. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

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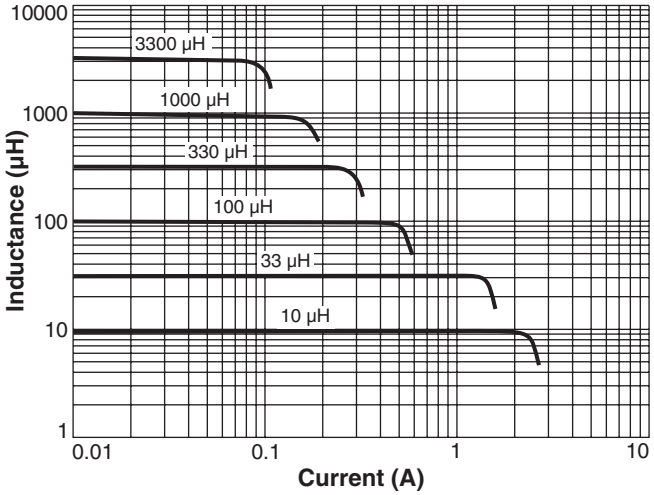
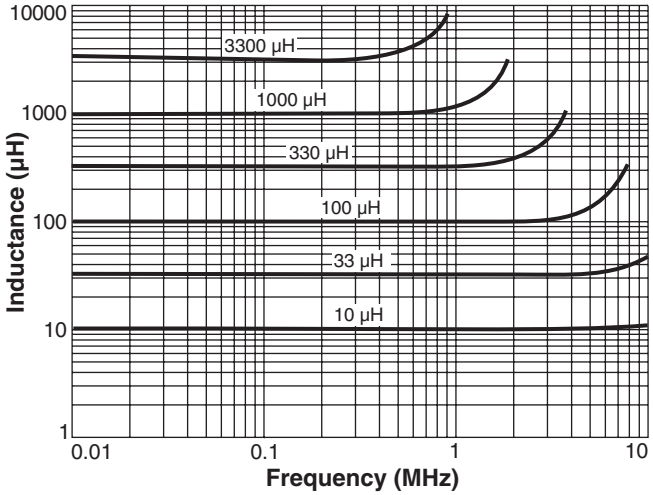
Specification subject to change without notice.
Please check web site for latest information.

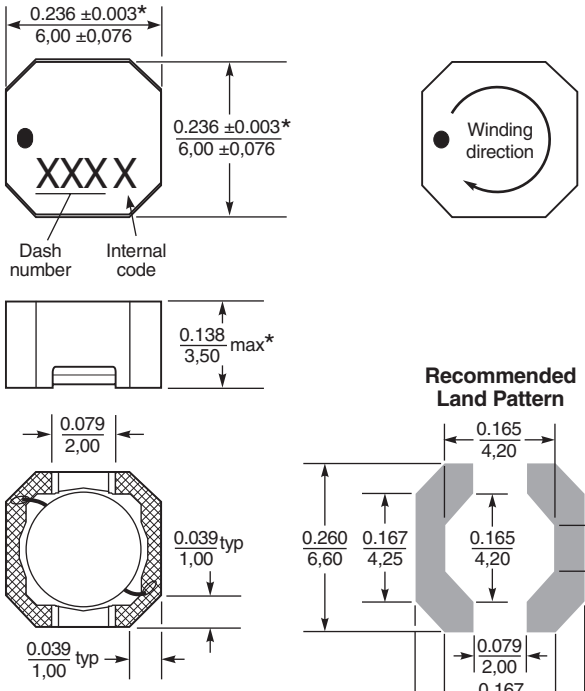
Shielded Power Inductors – LP6235 Series

Typical L vs Current



Typical L vs Frequency



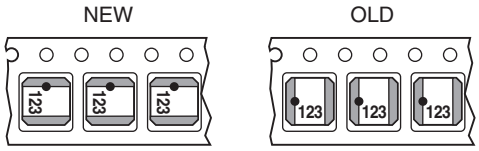


* Dimensions are of the case not including the termination. For maximum overall dimensions including the termination, add 0.005 in / 0,13 mm.
For optional tin-lead and tin-silver-copper terminations, dimensions are for the mounted part. Dimensions before mounting can be an additional 0.005 inch / 0,13 mm).

Dimensions are in inches / mm

Packaging 350/7″ reel; 1500/13″ reel Plastic tape: 16 mm wide, 0.3 mm thick, 12 mm pocket spacing, 3.68 mm pocket depth

NOTE NEW PART ORIENTATION Parts are rotated 90° in the packaging tape compared to previous versions of this product.



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