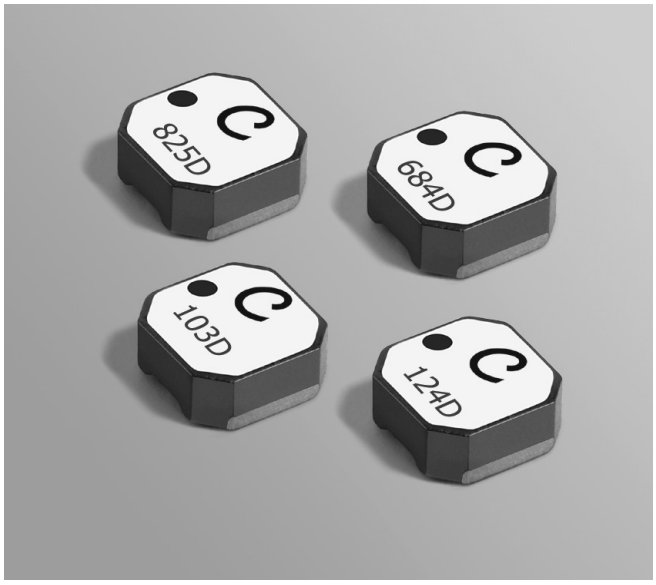
Shielded Power Inductors – LPS6225



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

Designer's Kit C349 contains 3 each of all values
Core material Ferrite
Core and winding loss See www.coilcraft.com/coreloss
Environmental RoHS compliant, halogen free
Terminations RoHS compliant matte tin over nickel over silver. Other terminations available at additional cost.
Weight 309 – 331 mg
Ambient temperature –40°C to +85°C with (40°C rise) Irms current.
Maximum part temperature +125°C (ambient + temp rise). Derating.
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 750/7″ reel; 2500/13″ reel Plastic tape: 12 mm wide, 0.3 mm thick, 8 mm pocket spacing, 2.57 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. See Doc787_PCB_Washing.pdf.

Part number[1]	Inductance[2] ± 20% (µH)	DCR max[3] (Ohms)	SRF typ[4] (MHz)	Isat (A)[5] 10% drop	20% drop	30% drop	Irms (A)[6] 20°C rise	40°C rise
LPS6225-122MR_	1.2	0.040	178	5.3	5.4	5.4	1.1	1.65
LPS6225-222MR_	2.2	0.045	100	3.9	4.0	4.1	1.0	1.40
LPS6225-332MR_	3.3	0.055	68	3.5	3.5	3.6	1.0	1.35
LPS6225-472MR_	4.7	0.065	53	3.0	3.1	3.2	0.90	1.30
LPS6225-682MR_	6.8	0.095	40	2.6	2.7	2.8	0.90	1.30
LPS6225-103MR_	10	0.105	35	2.1	2.1	2.2	0.90	1.30
LPS6225-153MR_	15	0.135	23	2.1	2.2	2.2	0.85	1.20
LPS6225-223MR_	22	0.175	17	1.4	1.5	1.6	0.80	1.10
LPS6225-333MR_	33	0.260	14	1.1	1.2	1.2	0.65	0.90
LPS6225-473MR_	47	0.360	10	0.98	1.0	1.0	0.60	0.80
LPS6225-683MR_	68	0.420	9.6	0.58	0.61	0.62	0.57	0.74
LPS6225-104MR_	100	0.610	7.7	0.48	0.51	0.52	0.47	0.64
LPS6225-124MR_	120	0.750	7.4	0.42	0.45	0.46	0.43	0.58
LPS6225-154MR_	150	0.920	6.4	0.39	0.41	0.42	0.40	0.54
LPS6225-224MR_	220	1.30	5.0	0.32	0.34	0.35	0.37	0.50
LPS6225-334MR_	330	2.00	3.8	0.26	0.27	0.28	0.28	0.39
LPS6225-474MR_	470	2.60	3.2	0.22	0.23	0.24	0.24	0.37
LPS6225-684MR_	680	4.00	2.8	0.18	0.19	0.20	0.18	0.26
LPS6225-105MR_	1000	6.00	2.3	0.15	0.16	0.17	0.15	0.24
LPS6225-155MR_	1500	9.00	1.8	0.12	0.13	0.13	0.13	0.20
LPS6225-185MR_	1800	11.7	1.7	0.11	0.12	0.12	0.11	0.14
LPS6225-225MR_	2200	13.5	1.3	0.10	0.10	0.11	0.11	0.13
LPS6225-335MR_	3300	21.0	1.1	0.099	0.10	0.11	0.080	0.11
LPS6225-475MR_	4700	30.0	0.90	0.086	0.096	0.10	0.075	0.090
LPS6225-565MR_	5600	36.0	0.72	0.083	0.090	0.096	0.070	0.090
LPS6225-685MR_	6800	43.0	0.70	0.080	0.086	0.089	0.065	0.080
LPS6225-825MR_	8200	54.0	0.69	0.079	0.086	0.088	0.060	0.075
LPS6225-106MR_	10000	70.0	0.68	0.075	0.084	0.087	0.060	0.065

1. Please specify **termination** and **packaging** codes:
   LPS6225-106MRC
   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 (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 tested at 100 kHz, 0.1 Vrms, 0 Adc.
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. Click for temperature derating information.
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. Click for temperature derating information.
7. Electrical specifications at 25°C.

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

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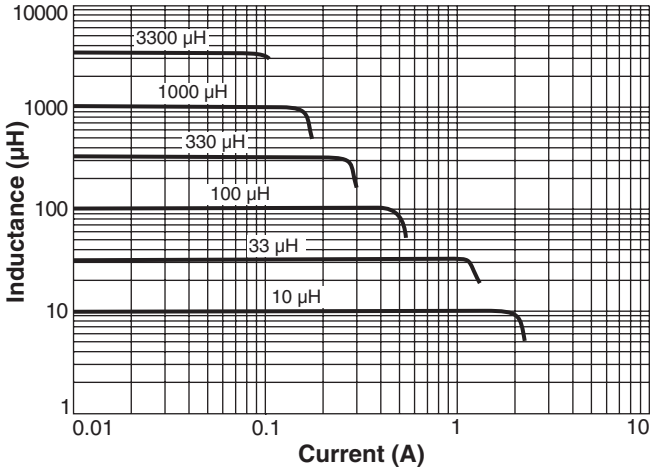
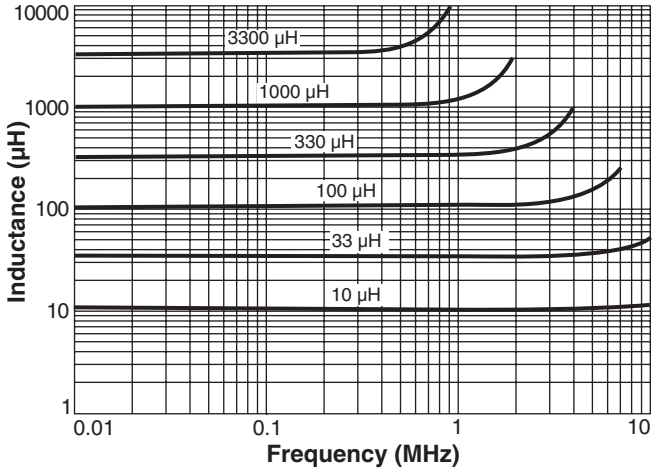
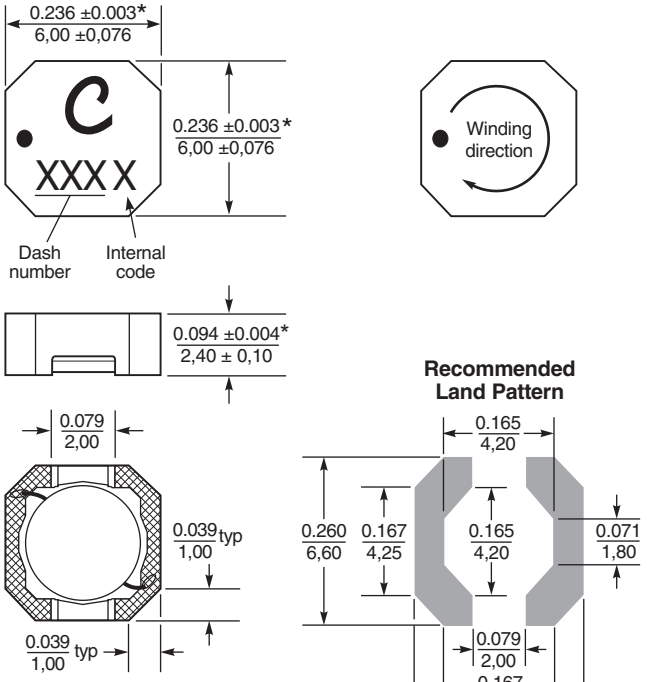
Shielded SMT Power Inductors – LPS6225 Series

Typical L vs Current



Typical L vs Frequency



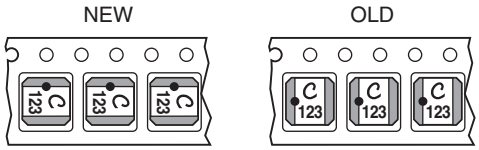


* Dimensions are of the case not including the termination. For maximum overall dimensions including the termination, add 0.005 in / 0,13 mm.
For optional tin-lead and tin-silver-copper terminations, dimensions are for the mounted part. Dimensions before mounting can be an additional 0.005 inch / 0,13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

Dimensions are in inches / mm

Packaging 750/7″ reel; 2500/13″ reel Plastic tape: 12 mm wide, 0.3 mm thick, 8 mm pocket spacing, 2.57 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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