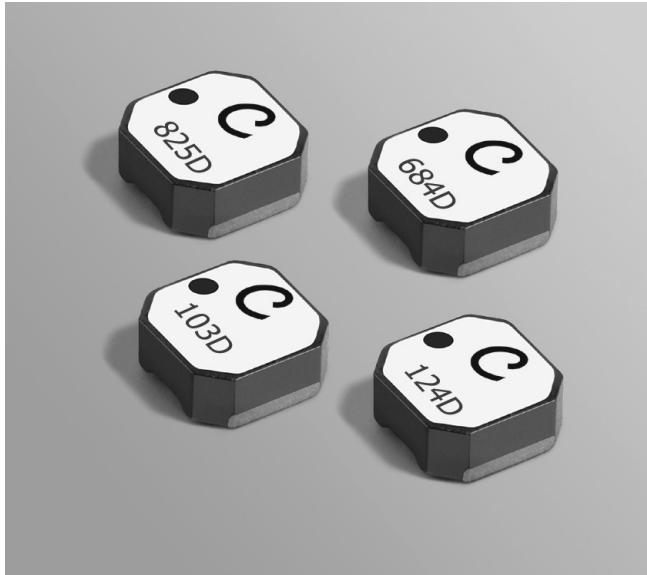


Shielded Power Inductors – LPS6225



- Low DCR; high current; shielded construction
- Perfect for backlight applications
- AEC-Q200 Grade 1 qualified (–40°C to +125°C ambient)

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 +125°C with (40°C rise) Irms current.

Maximum part temperature +165°C (ambient + temp rise). **Derating.**

Storage temperature Component: –40°C to +165°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)

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 | | | Irms (A) ⁶ | |
|--------------------------|---------------------------------------|-----------------------------------|----------------------------------|-----------------------|-------------|-------------|-----------------------|--------------|
| | | | | 10% drop | 20% drop | 30% drop | 20°C rise | 40°C rise |
| LPS6225-102MR_ | 1.0 | 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 | 2.5 | 2.6 | 2.7 | 0.90 | 1.30 |
| LPS6225-153MR_ | 15 | 0.170 | 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:

LPS6225-106MR_C

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).

D = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (2500 parts per full reel).

B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to C.

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.](#)

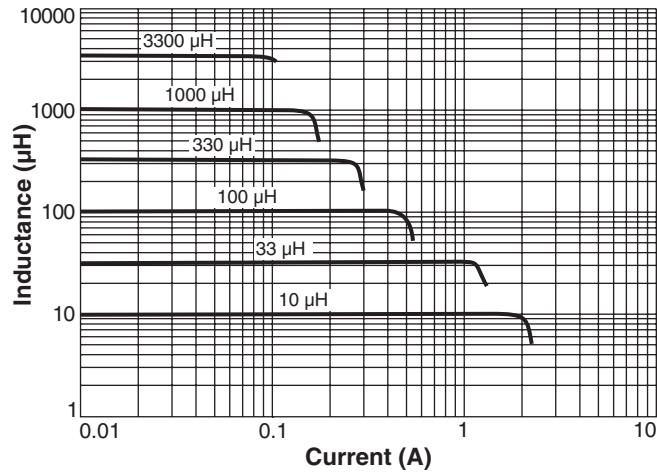
7. Electrical specifications at 25°C.

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

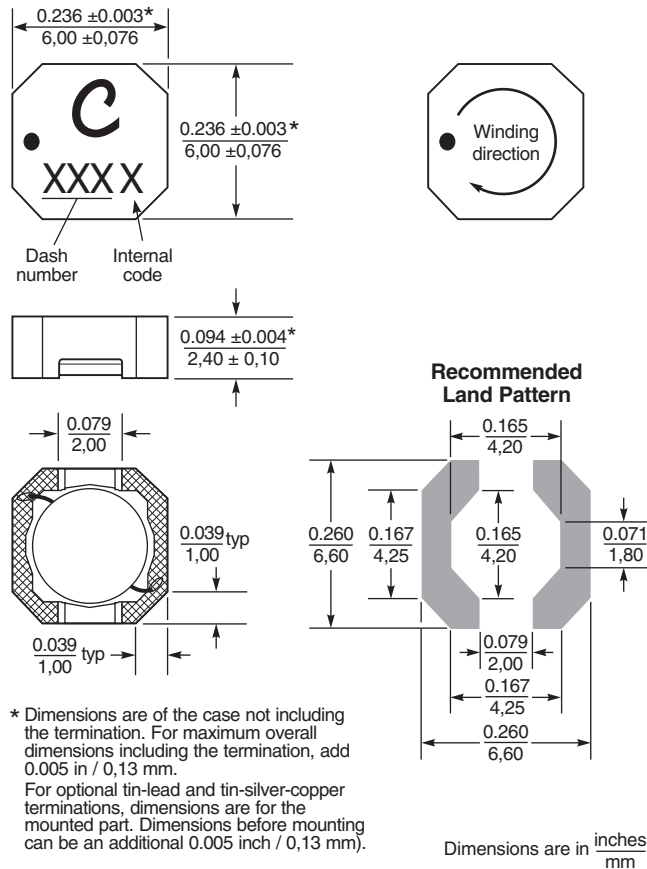
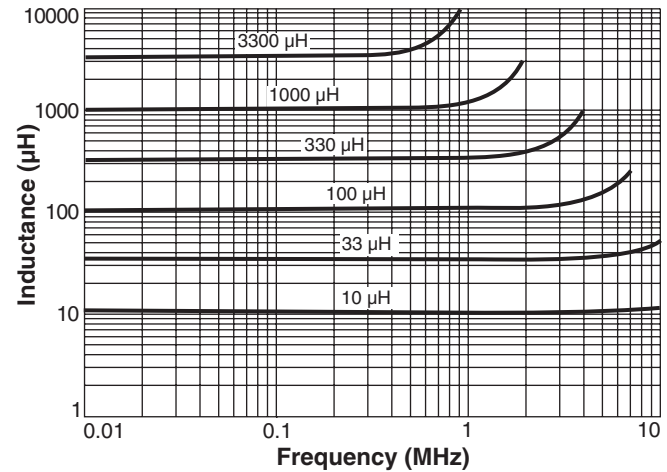


Shielded SMT Power Inductors – LPS6225 Series

Typical L vs Current

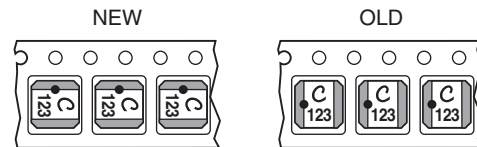


Typical L vs Frequency



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.



* 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).

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



US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

Document 554-2 Revised 12/21/21
 © Coilcraft Inc. 2021
 This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.