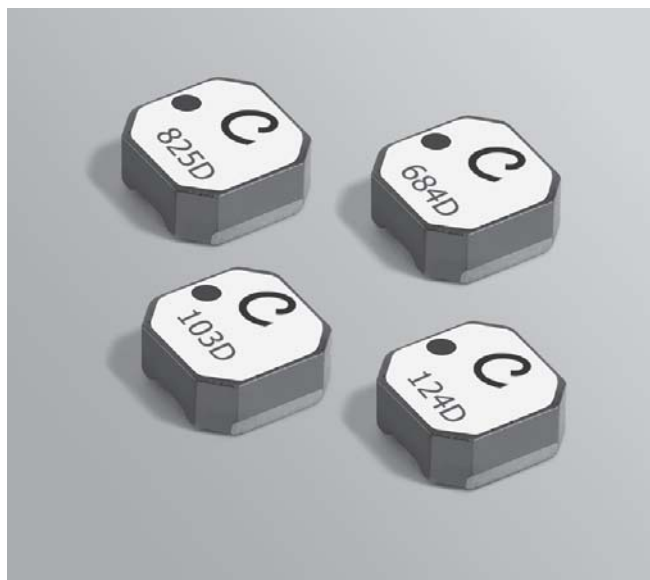




# Shielded Power Inductors – LPS6225 Series



- 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](http://www.coilcraft.com/coreloss)

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

**Weight** 309 – 331 mg

**Ambient temperature** –40°C to +85°C with I<sub>rms</sub> 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** 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** Only pure water or alcohol recommended

| Part number <sup>1</sup> | Inductance <sup>2</sup><br>± 20% (μH) | DCR<br>max <sup>3</sup><br>(Ohms) | SRF<br>typ <sup>4</sup><br>(MHz) | Isat (A) <sup>5</sup> |             |             | Irms (A) <sup>6</sup> |              |
|--------------------------|---------------------------------------|-----------------------------------|----------------------------------|-----------------------|-------------|-------------|-----------------------|--------------|
|                          |                                       |                                   |                                  | 10%<br>drop           | 20%<br>drop | 30%<br>drop | 20°C<br>rise          | 40°C<br>rise |
| LPS6225-122ML_           | 1.2                                   | 0.040                             | 178                              | 5.3                   | 5.4         | 5.4         | 1.1                   | 1.65         |
| LPS6225-222ML_           | 2.2                                   | 0.045                             | 100                              | 3.9                   | 4.0         | 4.1         | 1.0                   | 1.40         |
| LPS6225-332ML_           | 3.3                                   | 0.055                             | 68                               | 3.5                   | 3.5         | 3.6         | 1.0                   | 1.35         |
| LPS6225-472ML_           | 4.7                                   | 0.065                             | 53                               | 3.0                   | 3.1         | 3.2         | 0.90                  | 1.30         |
| LPS6225-682ML_           | 6.8                                   | 0.095                             | 40                               | 2.6                   | 2.7         | 2.8         | 0.90                  | 1.30         |
| LPS6225-103ML_           | 10                                    | 0.105                             | 35                               | 2.1                   | 2.1         | 2.2         | 0.90                  | 1.30         |
| LPS6225-153ML_           | 15                                    | 0.135                             | 23                               | 2.1                   | 2.2         | 2.2         | 0.85                  | 1.20         |
| LPS6225-223ML_           | 22                                    | 0.175                             | 17                               | 1.4                   | 1.5         | 1.6         | 0.80                  | 1.10         |
| LPS6225-333ML_           | 33                                    | 0.260                             | 14                               | 1.1                   | 1.2         | 1.2         | 0.65                  | 0.90         |
| LPS6225-473ML_           | 47                                    | 0.360                             | 10                               | 0.98                  | 1.0         | 1.0         | 0.60                  | 0.80         |
| LPS6225-683ML_           | 68                                    | 0.420                             | 9.6                              | 0.58                  | 0.61        | 0.62        | 0.57                  | 0.74         |
| LPS6225-104ML_           | 100                                   | 0.610                             | 7.7                              | 0.48                  | 0.51        | 0.52        | 0.47                  | 0.64         |
| LPS6225-124ML_           | 120                                   | 0.750                             | 7.4                              | 0.42                  | 0.45        | 0.46        | 0.43                  | 0.58         |
| LPS6225-154ML_           | 150                                   | 0.920                             | 6.4                              | 0.39                  | 0.41        | 0.42        | 0.40                  | 0.54         |
| LPS6225-224ML_           | 220                                   | 1.30                              | 5.0                              | 0.32                  | 0.34        | 0.35        | 0.37                  | 0.50         |
| LPS6225-334ML_           | 330                                   | 2.00                              | 3.8                              | 0.26                  | 0.27        | 0.28        | 0.28                  | 0.39         |
| LPS6225-474ML_           | 470                                   | 2.60                              | 3.2                              | 0.22                  | 0.23        | 0.24        | 0.24                  | 0.37         |
| LPS6225-684ML_           | 680                                   | 4.00                              | 2.8                              | 0.18                  | 0.19        | 0.20        | 0.18                  | 0.26         |
| LPS6225-105ML_           | 1000                                  | 6.00                              | 2.3                              | 0.15                  | 0.16        | 0.17        | 0.15                  | 0.24         |
| LPS6225-155ML_           | 1500                                  | 9.00                              | 1.8                              | 0.12                  | 0.13        | 0.13        | 0.13                  | 0.20         |
| LPS6225-185ML_           | 1800                                  | 11.7                              | 1.7                              | 0.11                  | 0.12        | 0.12        | 0.11                  | 0.14         |
| LPS6225-225ML_           | 2200                                  | 13.5                              | 1.3                              | 0.10                  | 0.10        | 0.11        | 0.11                  | 0.13         |
| LPS6225-335ML_           | 3300                                  | 21.0                              | 1.1                              | 0.099                 | 0.10        | 0.11        | 0.080                 | 0.11         |
| LPS6225-475ML_           | 4700                                  | 30.0                              | 0.90                             | 0.086                 | 0.960       | 0.10        | 0.075                 | 0.090        |
| LPS6225-565ML_           | 5600                                  | 36.0                              | 0.72                             | 0.077                 | 0.090       | 0.096       | 0.070                 | 0.090        |
| LPS6225-685ML_           | 6800                                  | 43.0                              | 0.70                             | 0.080                 | 0.086       | 0.089       | 0.065                 | 0.080        |
| LPS6225-825ML_           | 8200                                  | 54.0                              | 0.69                             | 0.079                 | 0.086       | 0.088       | 0.060                 | 0.075        |
| LPS6225-106ML_           | 10000                                 | 70.0                              | 0.68                             | 0.075                 | 0.084       | 0.087       | 0.060                 | 0.065        |

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

**LPS6225-106MLC**

**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 (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 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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Specifications subject to change without notice.  
Please check our website for latest information.

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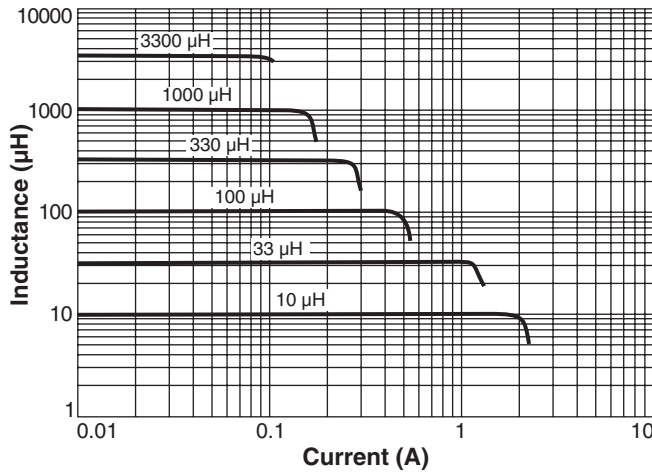
1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

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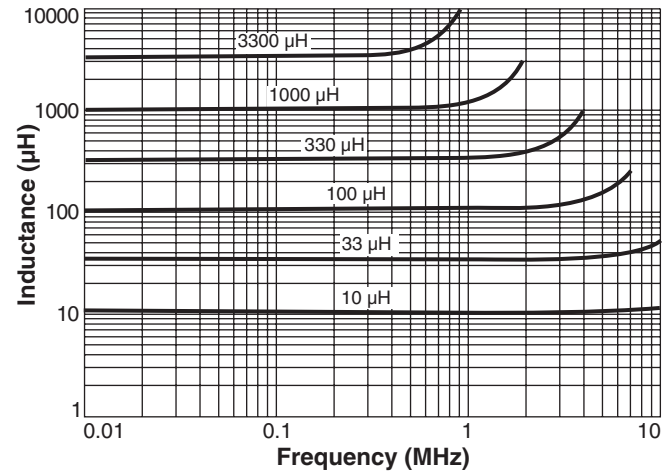


# Shielded SMT Power Inductors – LPS6225 Series

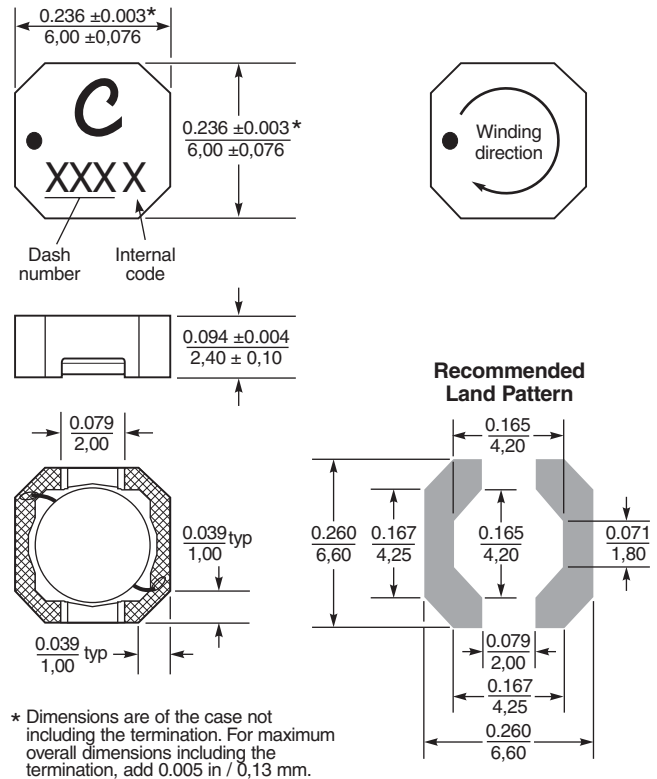
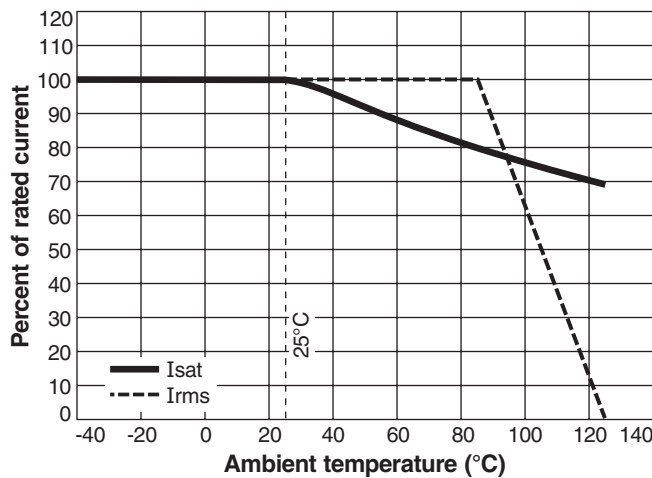
## Typical L vs Current



## Typical L vs Frequency



## Current Derating



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

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Specifications subject to change without notice.  
Please check our website for latest information.

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