



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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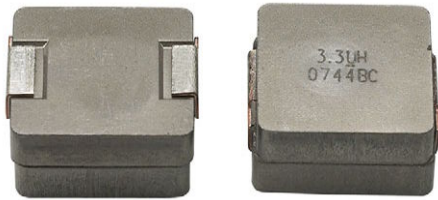
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## Low Profile, High Current IHLP® Inductors



Manufactured under one or more of the following:  
**US Patents; 6,198,375/6,204,744/6,449,829/6,460,244.**  
 Several foreign patents, and other patents pending.

| STANDARD ELECTRICAL SPECIFICATIONS   |                              |                              |  |  |                      |
|--|------------------------------|------------------------------|--|--|----------------------|
| L <sub>0</sub><br>INDUCTANCE<br>± 20 %<br>AT 100 kHz,<br>0.25 V, 0 A<br>(µH) | DCR<br>TYP.<br>25 °C<br>(mΩ) | DCR<br>MAX.<br>25 °C<br>(mΩ) | HEAT<br>RATING<br>CURRENT<br>DC TYP.<br>(A) <sup>(3)</sup> | SATURATION<br>CURRENT<br>DC TYP.<br>(A) <sup>(4)</sup> | SRF<br>TYP.<br>(MHz) |
| 1.0  | 1.65                         | 1.77                         | 40   | 26   | 33.4                 |
| 1.2  | 1.98                         | 2.12                         | 29   | 24.5   | 32.0                 |
| 1.5  | 2.4                          | 2.57                         | 27.5   | 23.5   | 29.2                 |
| 1.8  | 2.75                         | 2.94                         | 26   | 22.5   | 25.9                 |
| 2.2  | 3.43                         | 3.67                         | 25.5   | 21.5   | 23.3                 |
| 3.3  | 5.08                         | 5.44                         | 20.2   | 16.7   | 17.8                 |
| 4.7  | 7.41                         | 7.93                         | 17.4   | 18.5   | 15.8                 |
| 5.6  | 8.51                         | 9.11                         | 13.8   | 13.8   | 12.3                 |
| 6.8  | 11.3                         | 12.09                        | 14.2   | 8.7  | 13.4                 |
| 7.8  | 12.6                         | 13.48                        | 13.5   | 8.5  | 13.6                 |
| 8.2  | 13.2                         | 14.12                        | 13.2   | 7.6  | 10.3                 |
| 10   | 16.60                        | 17.76                        | 10.9   | 7.2  | 10.7                 |
| 12   | 19.00                        | 20.33                        | 10.6   | 6.9  | 7.59                 |
| 15   | 24.00                        | 25.68                        | 8.7  | 6.8  | 8.30                 |
| 22   | 31.30                        | 33.49                        | 8.3  | 5.5  | 6.43                 |

**Notes**

- (1) All test data is referenced to 25 °C ambient
- (2) Operating temperature range -55 °C to +155 °C
- (3) DC current (A) that will cause an approximate ΔT of 40 °C
- (4) DC current (A) that will cause L<sub>0</sub> to drop approximately 20 %
- (5) The part temperature (ambient + temp. rise) should not exceed 155 °C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
- (6) Maximum recommended operating voltage (across inductor) = 200 V

**FEATURES**

- High temperature, up to 155 °C
- Shielded construction
- Excellent DC/DC energy storage up to 1 MHz to 2 MHz. Filter inductor applications up the SRF (see Standard Electrical Specifications table).
- Lowest DCR/µH, in this package size
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

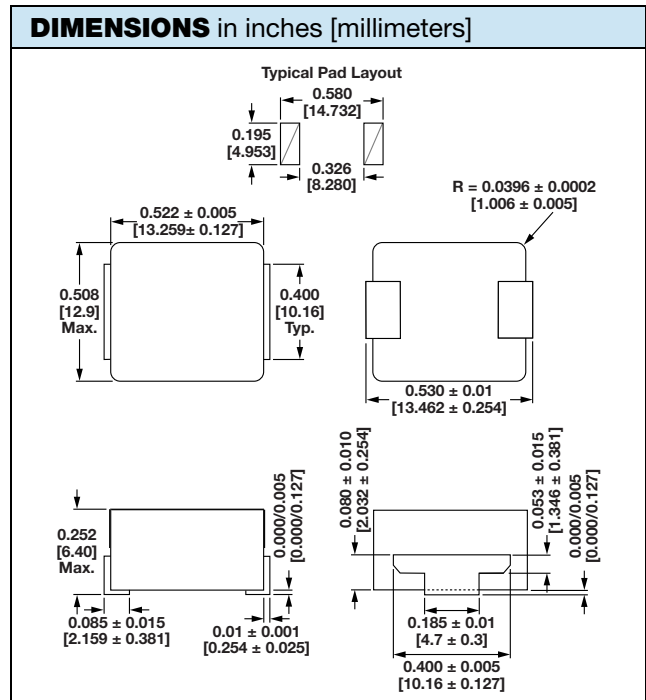


**RoHS**  
 COMPLIANT  
 HALOGEN  
**FREE**  
**GREEN**  
 (5-2008)

**APPLICATIONS**

- PDA/notebook/desktop/server applications
- High current POL converters
- Low profile, high current power supplies
- Battery powered devices
- DC/DC converters in distributed power systems
- DC/DC converter for Field Programmable Gate Array (FPGA)

**DIMENSIONS** in inches [millimeters]

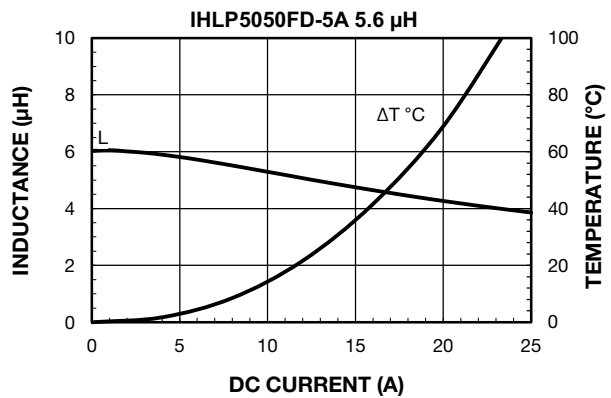
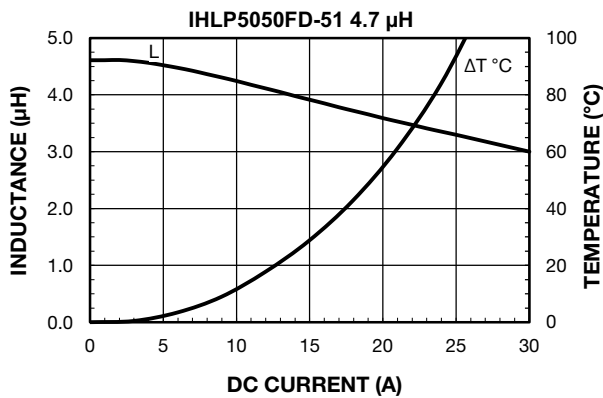
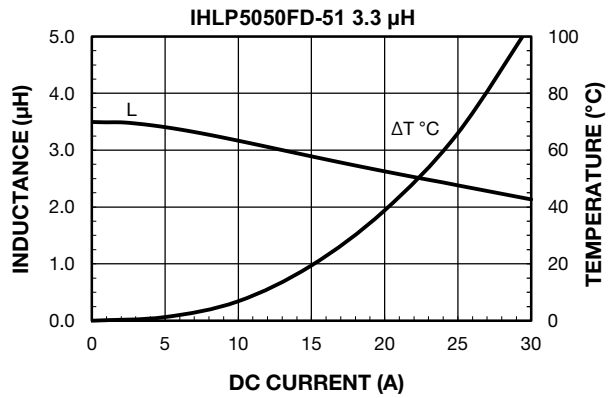
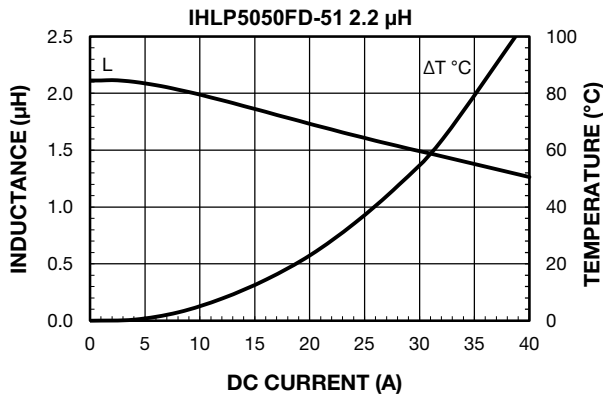
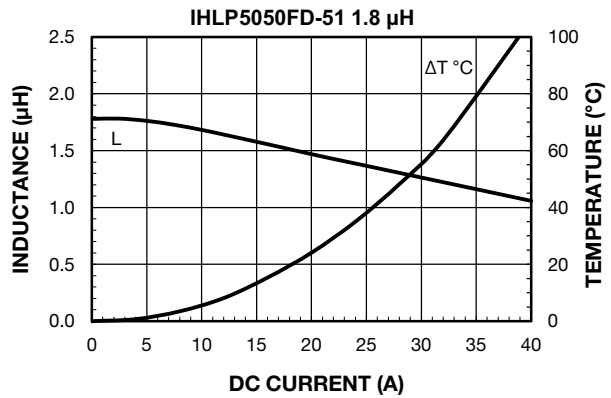
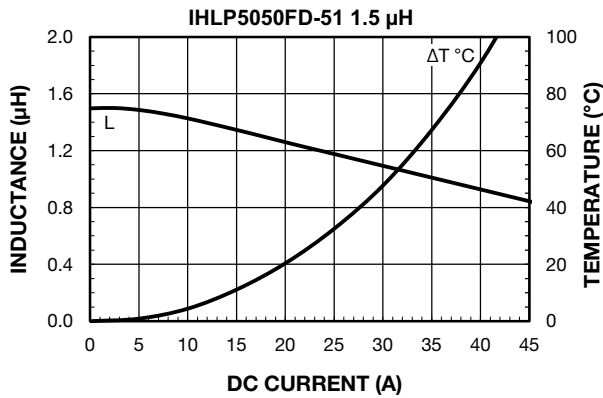
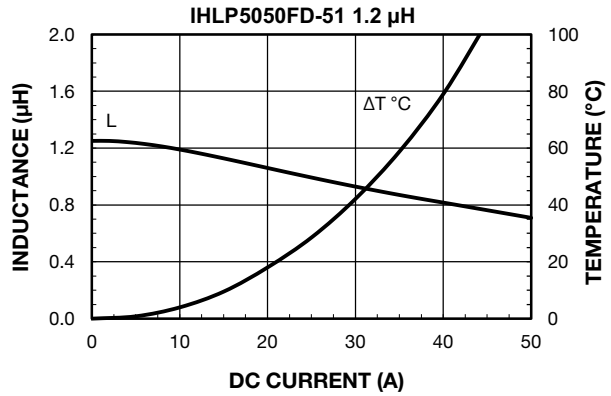
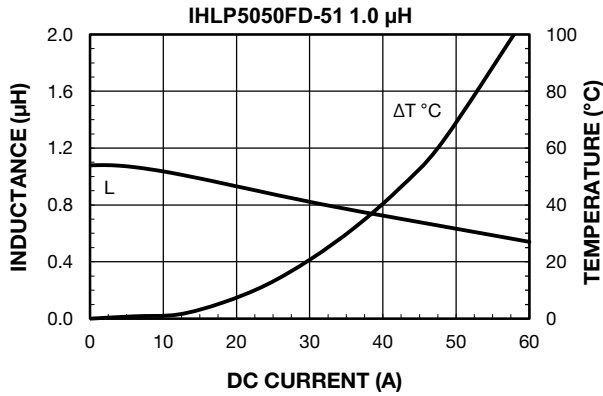


| DESCRIPTION    |                  |                      |              |                                |  |
|----------------|------------------|----------------------|--------------|--------------------------------|--|
| IHLP-5050FD-51 | 4.7 µH           | ± 20 %               | ER           | e3                             |  |
| MODEL          | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC® LEAD (Pb)-FREE STANDARD |  |

| GLOBAL PART NUMBER |   |   |   |      |   |   |   |              |   |                  |   |   |      |        |   |   |   |
|--------------------|---|---|---|------|---|---|---|--------------|---|------------------|---|---|------|--------|---|---|---|
| I                  | H | L | P | 5    | 0 | 5 | 0 | F            | D | E                | R | 4 | R    | 7      | M | 5 | 1 |
| MODEL              |   |   |   | SIZE |   |   |   | PACKAGE CODE |   | INDUCTANCE VALUE |   |   | TOL. | SERIES |   |   |   |

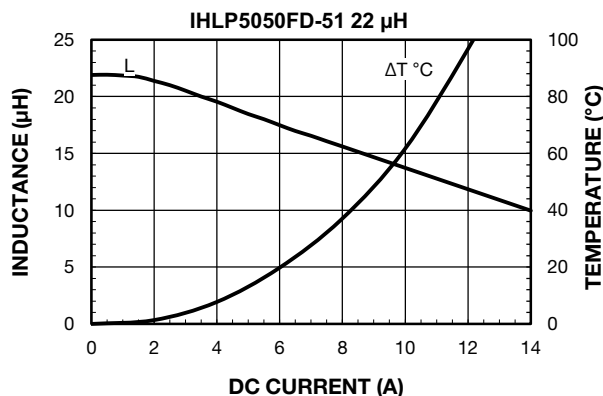
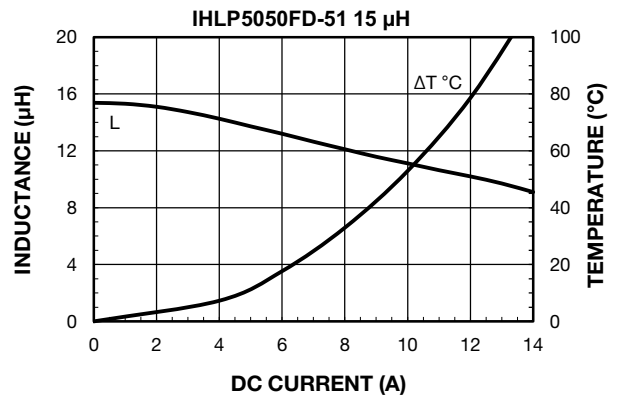
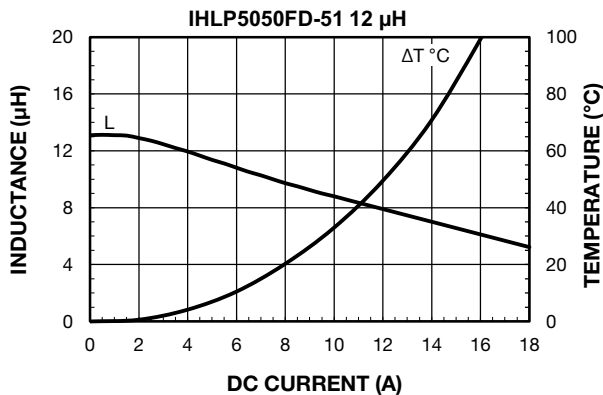
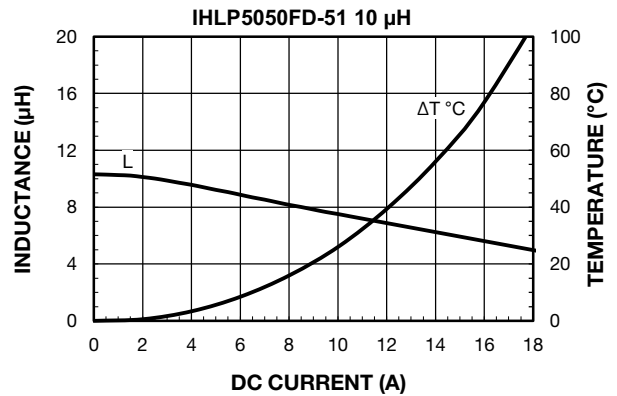
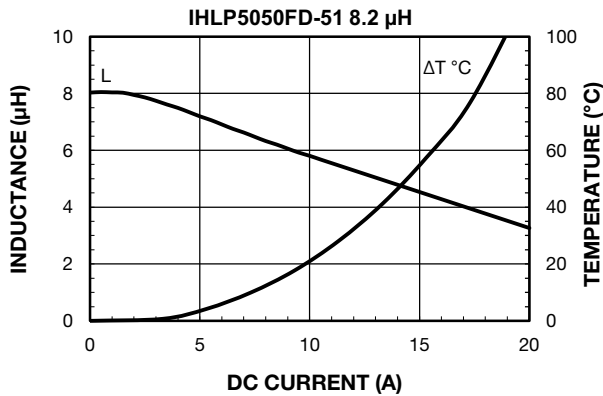
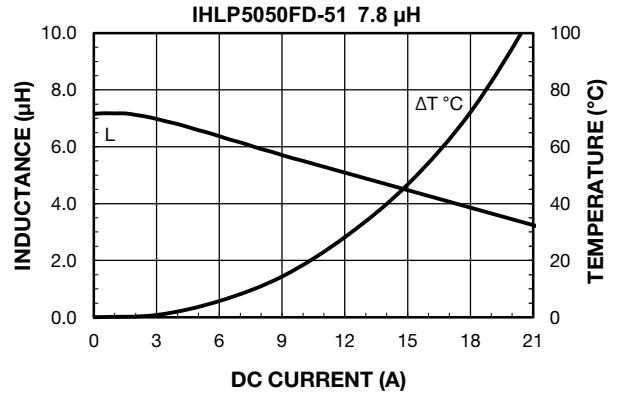
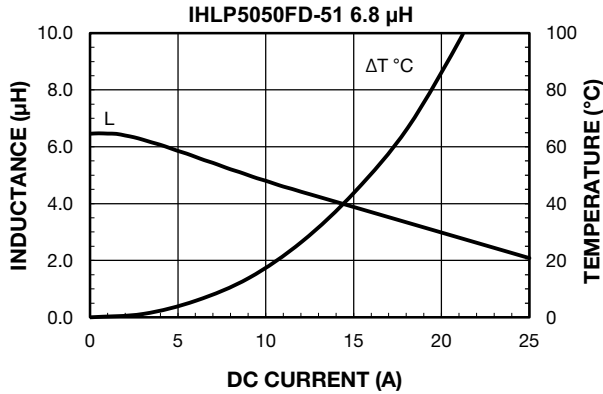


PERFORMANCE GRAPHS



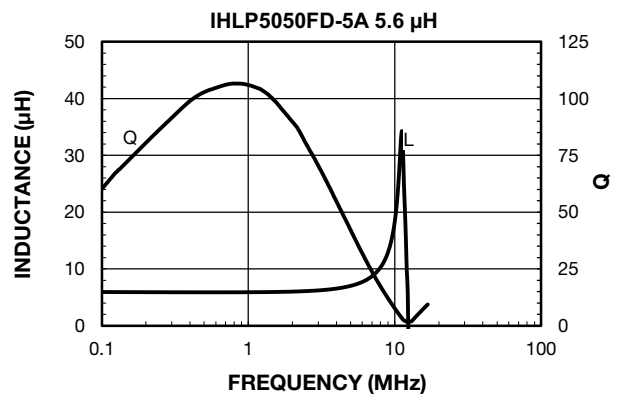
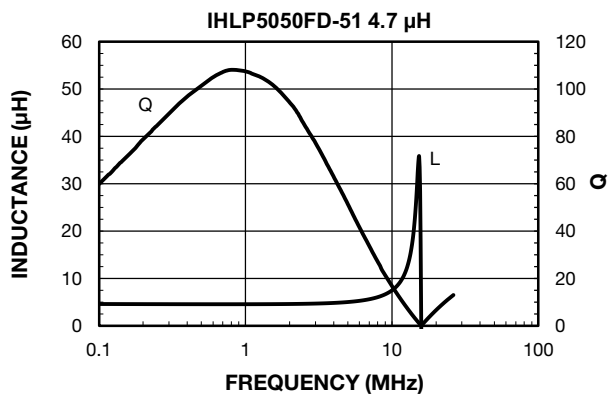
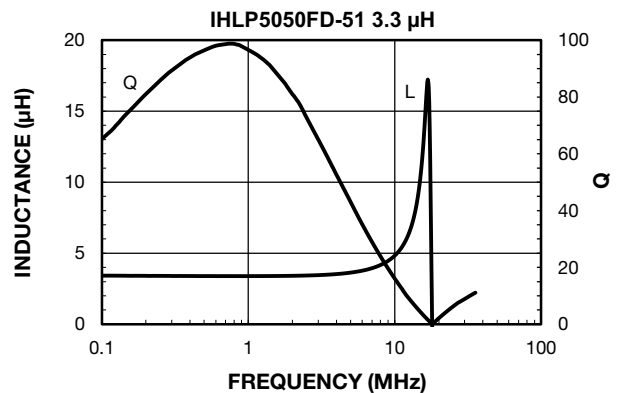
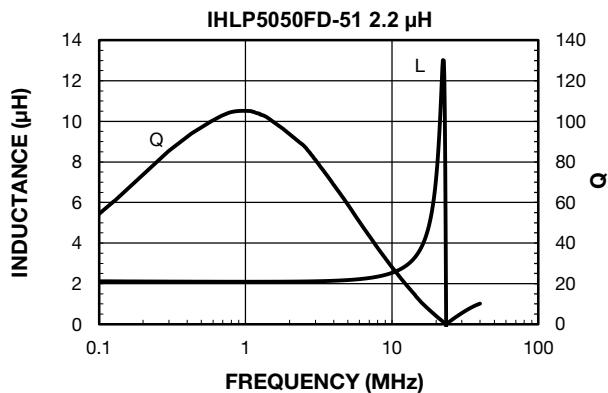
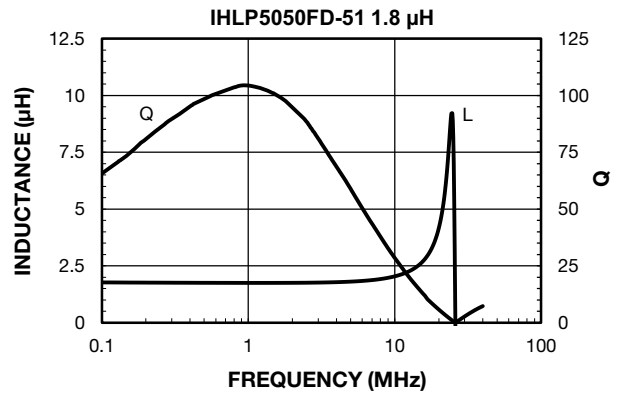
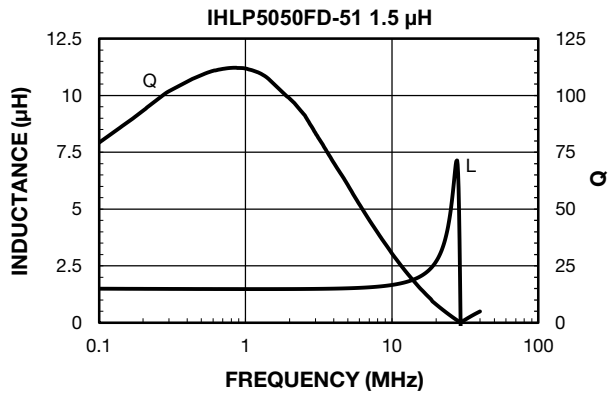
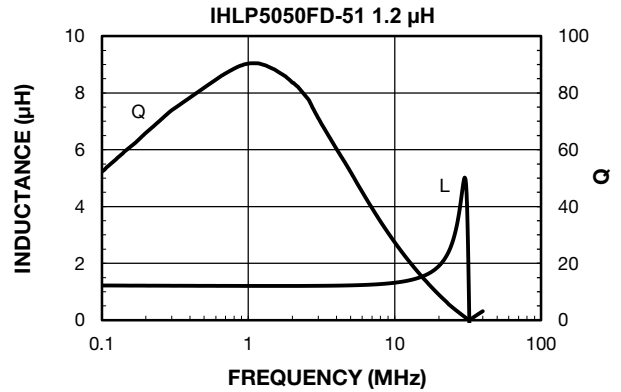
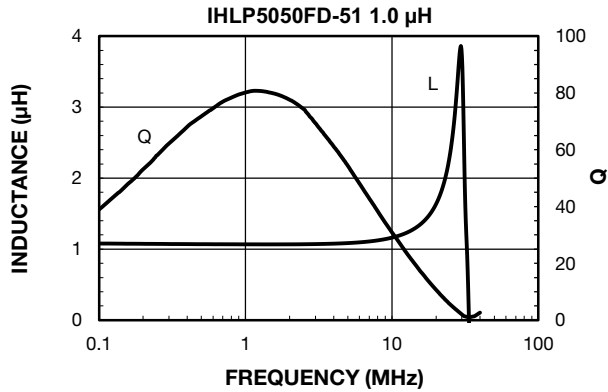


PERFORMANCE GRAPHS



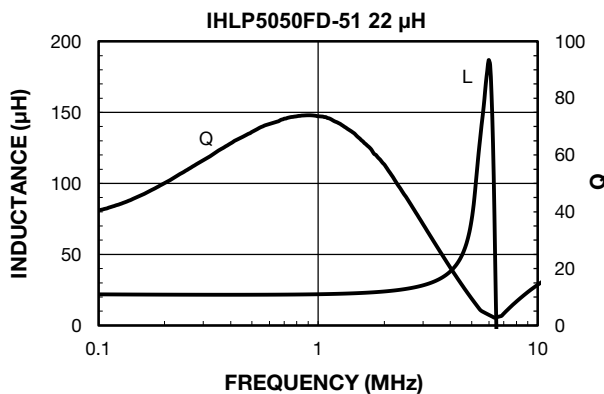
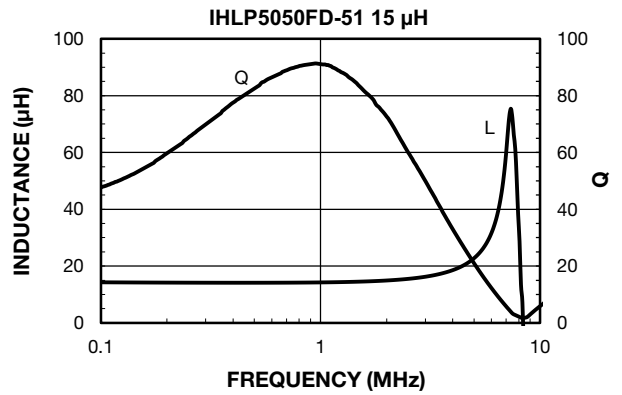
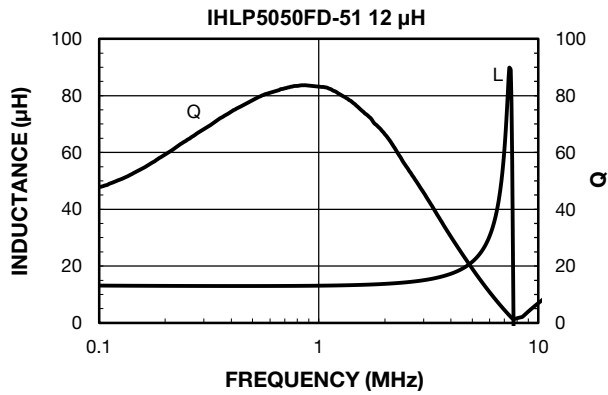
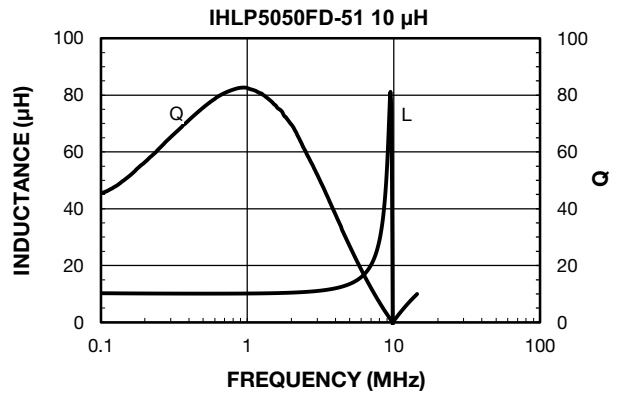
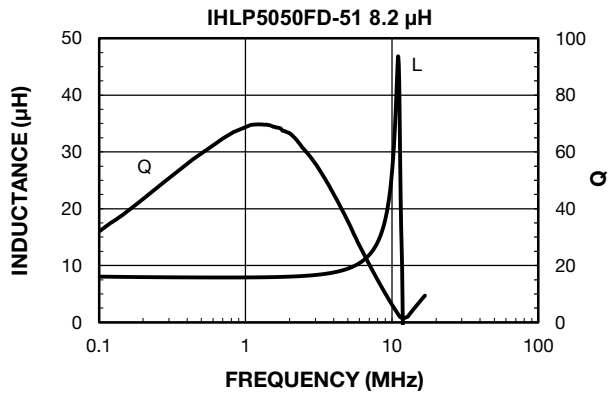
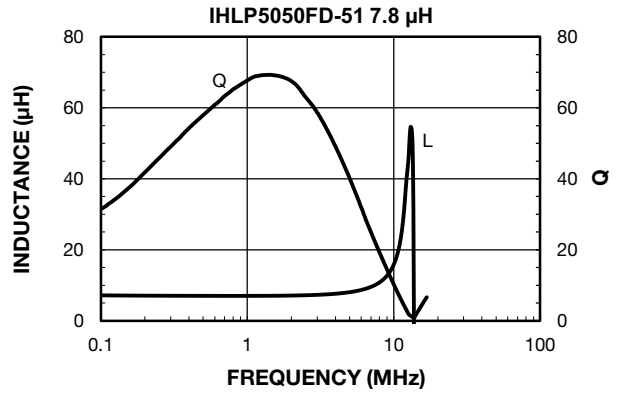
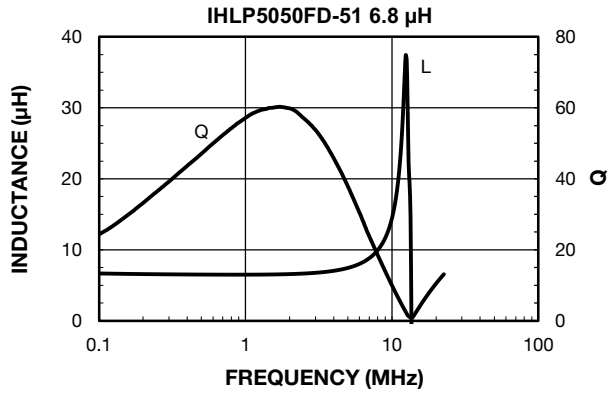


PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY





PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY





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