

## **Power Inductors - DC1012 Series**



These power inductors are especially effective as DC-DC converter boost or buck inductors and as output ripple filter chokes in all types of downsized switching power supplies.

They are ideal for applications requiring small size, cost effective power inductors. The vertical style helps reduce power supply size by saving crucial printed circuit board area. The large inductance available per size makes these parts ideal for all sorts of energy storage. smoothing, and EMI reduction applications.

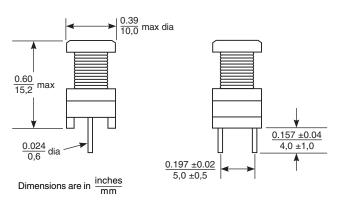
The Coilcraft DC1012 Series includes a wide range of EIA standard inductance values. Custom versions are also available.

Coilcraft Designer's Kit P410 contains three samples of all the standard parts shown. To order, contact Coilcraft or visit http://order.coilcraft.com.

| Ref.<br>num. | L¹<br>Part<br>number  | DCR<br>±10%<br>(µH)    | SRF<br>max<br>(Ohms) | typ<br>(MHz) | Isat <sup>2</sup><br>(A) | Irms <sup>3</sup> |
|--------------|-----------------------|------------------------|----------------------|--------------|--------------------------|-------------------|
|              | DC1012-103L           | 10                     | 0.026                | 35           | 3.5                      | 3.5               |
|              | DC1012-123L           | 12                     | 0.030                | 25           | 3.2                      | 3.2               |
| L1,L2        | DC1012-153L           | 15                     | 0.035                | 18           | 3.0                      | 3.0               |
|              | DC1012-183L           | 18                     | 0.038                | 15           | 2.8                      | 2.8               |
|              | DC1012-223L           | 22                     | 0.046                | 13           | 2.5                      | 2.5               |
|              | DC1012-273L           | 27                     | 0.070                | 12           | 2.5                      | 2.2               |
|              | DC1012-333L           | 33                     | 0.080                | 11           | 2.2                      | 2.0               |
|              | DC1012-393L           | 39                     | 0.088                | 10           | 2.1                      | 1.8               |
|              | DC1012-473L           | 47                     | 0.100                | 9.0          | 1.8                      | 1.6               |
|              | DC1012-563L           | 56                     | 0.15                 | 8.0          | 1.6                      | 1.4               |
|              | DC1012-683L           | 68                     | 0.17                 | 7.0          | 1.4                      | 1.2               |
|              | DC1012-823L           | 82                     | 0.20                 | 6.0          | 1.2                      | 1.2               |
|              | DC1012-104L           | 100                    | 0.22                 | 5.5          | 1.2                      | 1.2               |
|              | DC1012-124L           | 120                    | 0.29                 | 5.0          | 1.2                      | 1.0               |
|              | DC1012-154L           | 150                    | 0.34                 | 4.5          | 1.0                      | 0.9               |
|              | DC1012-184L           | 180                    | 0.38                 | 4.0          | 0.9                      | 0.8               |
|              | DC1012-224L           | 220                    | 0.44                 | 3.5          | 8.0                      | 0.7               |
|              | DC1012-274L           | 270                    | 0.62                 | 3.25         | 0.7                      | 0.7               |
|              | DC1012-334L           | 330                    | 0.70                 | 3.0          | 0.7                      | 0.6               |
| L3           | R4793-AL <sup>4</sup> | <b>18</b> <sup>5</sup> | 0.035                | 15           | 4.9                      | 4.9               |



Part marking since Sept. 2007. Parts manufactured prior to that date may have color dots. Visit www.coilcraft.com/colrpowr.cfm for details.



Weight: 2.1 - 3.0 g

Terminations: Tin-silver over tin over copper over steel

Packaging: 100 parts per tray

1. Tested at 100 kHz, 0.1 Vrms, 0 Adc.

2. DC current at which inductance drops 10% (typ) from its value without current.

Average current for a 40°C rise above 25°C ambient.

4. R4793-AL not included in Designer's Kit.

5. Inductance at Isat: 16.7 µH min.

6. Ambient temperature range: -40°C to +85°C 7. Storage temperature range: Component: -40°C to +85°C Packaging: -40°C to +80°C

8. Electrical specifications at 25°C.



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

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