

# 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 switching power supplies.

They are ideal for applications through hole, cost effective power inductors. The vertical style helps to save 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 may also be 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>.

Part number <sup>1</sup>	Inductance <sup>2</sup> ±10% (µH)	DCR max (Ohms)	SRF typ (MHz)	Isat (A) <sup>3</sup>			Irms (A) <sup>4</sup>	
				10% drop	20% drop	30% drop	20°C rise	40°C rise
DC1012-103L	10	0.026	35	4.80	5.58	5.94	3.5	4.6
DC1012-123L	12	0.030	25	4.52	5.20	5.60	3.1	4.3
DC1012-153L	15	0.035	18	3.92	4.50	4.84	2.8	4.2
DC1012-183L	18	0.038	15	3.65	4.25	4.47	2.7	3.7
DC1012-223L	22	0.046	13	3.37	3.81	4.17	2.6	3.6
DC1012-273L	27	0.070	12	2.97	3.37	3.64	2.2	2.9
DC1012-333L	33	0.080	11	2.67	3.10	3.37	2.0	2.7
DC1012-393L	39	0.088	10	2.45	2.85	3.05	1.9	2.6
DC1012-473L	47	0.100	9.0	2.25	2.65	2.85	1.8	2.4
DC1012-563L	56	0.15	8.0	2.06	2.35	2.48	1.7	2.1
DC1012-683L	68	0.17	7.0	1.90	2.08	2.28	1.6	1.9
DC1012-823L	82	0.20	6.0	1.75	2.03	2.10	1.5	1.7
DC1012-104L	100	0.22	5.5	1.56	1.76	1.87	1.2	1.5
DC1012-124L	120	0.29	5.0	1.30	1.62	1.72	0.92	1.4
DC1012-154L	150	0.34	4.5	1.28	1.45	1.54	0.90	1.3
DC1012-184L	180	0.38	4.0	1.17	1.34	1.44	0.81	1.2
DC1012-224L	220	0.44	3.5	1.07	1.22	1.31	0.72	1.0
DC1012-274L	270	0.62	3.25	0.96	1.11	1.19	0.70	0.90
DC1012-334L	330	0.70	3.0	0.86	0.99	1.06	0.68	0.88

1. When ordering, please specify **termination** code:

**DC1012-334L**

Termination: **L** = RoHS compliant tin-silver (96.5/3.5) over tin over copper over steel.

Special order: **S** = non-RoHS tin-lead (63/37).

2. Tested at 100 kHz, 0.1 Vrms, 0 Adc.  
 3. DC current at which inductance drops the specified amount from its value without current.  
 4. Current that causes the specified temperature rise from 25°C ambient.  
 5. Electrical specifications at 25°C.

**Weight:** 2.1 – 3.0 g

**Terminations** RoHS tin-silver (96.5/3.5) over tin over copper over steel  
 Ambient temperature –40°C to +85°C with Irms current. +85°C to +125°C with derated current

**Storage temperature range** Component: –40°C to +125°C  
 Tray packaging: –40°C to +80°C

**Packaging** 100 parts per tray



[www.coilcraft.com](http://www.coilcraft.com)

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

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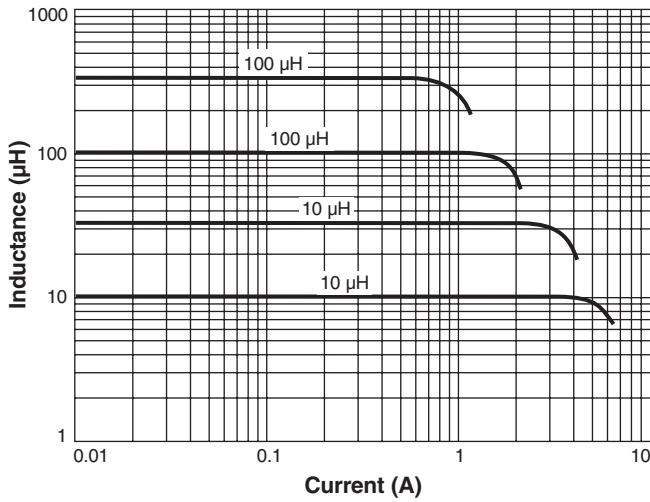
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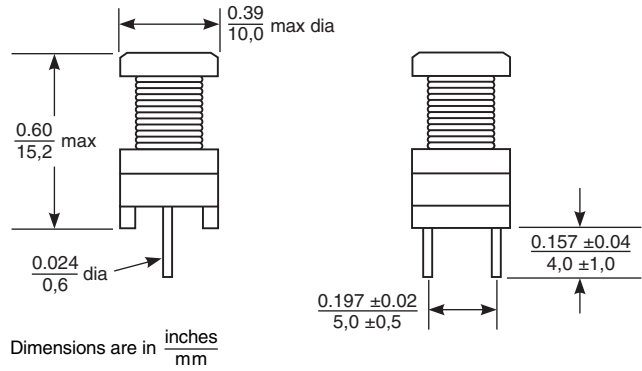


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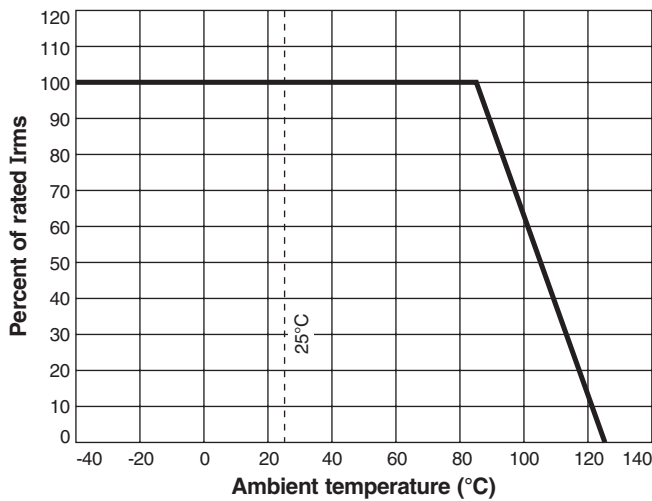
## Typical L vs Current



Part marking since Sept. 2007. Parts manufactured prior to that date may have color dots. Visit [www.coilcraft.com/colpowr.cfm](http://www.coilcraft.com/colpowr.cfm) for details.



## Irms Derating



**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

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