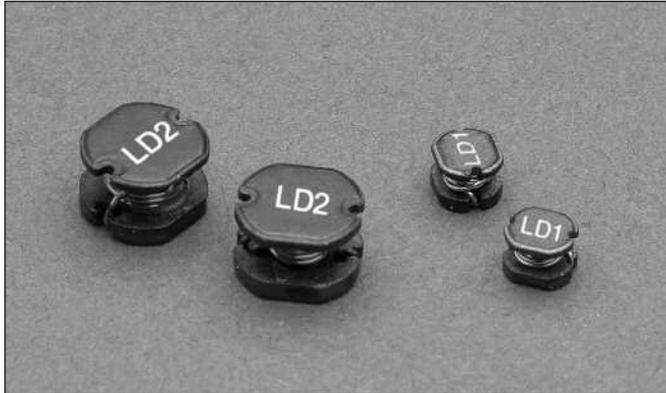


# LD Series

## Metalized Drum Core Power Inductor



### Description

- Metalized drum core design utilizes board space
- Current Range from 4.46 amps to 0.52 amps
- Inductance range from 1.0 $\mu$ H to 470 $\mu$ H
- Ferrite core material

### Applications

- Buck or boost inductor
- Noise filtering and output filter chokes
- Computers
- Power supplies
- Test equipment instrumentation



### Environmental Data

- Storage temperature: -40°C to +125°C
- Operating temperature: -40°C to +125°C (range is application specific). Temperature rise is approximately 40°C at rated rms current.
- Solder reflow temperature: 260°C max. for 10 seconds max.

### Packaging

- Supplied in tape and reel packaging, LD1 (2,000), LD2 (1,000) parts per reel

Part Number	Rated Inductance ( $\mu$ H)	OCL <sup>(1)</sup> Nominal	I <sub>rms</sub> <sup>(2)</sup> Amps	I <sub>sat</sub> <sup>(3)</sup> Amps	DCR <sup>(4)</sup> ( $\Omega$ ) (Max.)
LD1-1R0-R	1.0	1.00	2.66	4.46	0.0330
LD1-1R4-R	1.4	1.40	2.47	3.41	0.0380
LD1-1R8-R	1.8	1.80	2.35	3.05	0.0420
LD1-2R2-R	2.2	2.20	2.22	2.76	0.0470
LD1-2R7-R	2.7	2.70	2.11	2.52	0.0520
LD1-3R3-R	3.3	3.30	2.00	2.32	0.0580
LD1-3R9-R	3.9	3.90	1.75	2.14	0.0760
LD1-4R7-R	4.7	4.70	1.57	2.00	0.0940
LD1-5R6-R	5.6	5.60	1.51	1.75	0.1010
LD1-6R8-R	6.8	6.80	1.41	1.56	0.1170
LD1-8R2-R	8.2	8.20	1.32	1.41	0.1320
LD1-100-R	10	10.0	1.13	1.28	0.1820
LD1-120-R	12	12.0	1.05	1.18	0.2100
LD1-150-R	15	15.0	0.99	1.05	0.2350
LD1-180-R	18	18.0	0.83	0.98	0.3380
LD1-220-R	22	22.0	0.78	0.89	0.3780
LD1-270-R	27	27.0	0.67	0.87	0.5220
LD1-330-R	33	33.0	0.66	0.75	0.5400
LD1-390-R	39	39.0	0.63	0.68	0.5870
LD1-470-R	47	47.0	0.52	0.61	0.8440
LD1-560-R	56	56.0	0.50	0.57	0.9370
LD1-680-R	68	68.0	0.46	0.52	1.12

#### Notes:

- 1) Open Circuit Inductance Test Parameters: 100kHz, 0.25V<sub>rms</sub>, 0.0Adc  
+/-20% except for LD1-330-R to LD1-331-R and LD2-470-R to LD2-471-R which is +/-10%
- 2) RMS current for an approximate  $\Delta$ T of 40°C. It is recommended that the temperature of the part not exceed 125°C
- 3) Peak current for an approximate 10% rolloff at 20°C

4) DCR limits @ 20°C

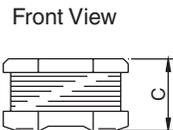
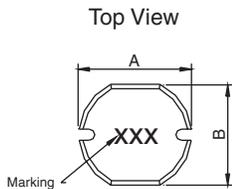
- 5) Part number definition: LDx-yyy-R  
LDx = product code and size, -yyy = inductance value in  $\mu$ H,  
R = decimal point. If no R is present, third character = # of zeros  
-R suffix = RoHS compliant

Part Number	Rated Inductance (μH)	OCL <sup>(1)</sup> Nominal	I <sub>rms</sub> <sup>(2)</sup> Amps	I <sub>sat</sub> <sup>(3)</sup> Amps	DCR <sup>(4)</sup> (Ω) (Max.)
LD1-820-R	82	82	0.43	0.50	1.28
LD1-101-R	100	100	0.36	0.45	1.72
LD1-151-R	150	150	0.29	0.40	2.68
LD1-221-R	220	220	0.26	0.33	3.42
LD1-331-R	330	330	0.22	0.30	4.70
LD2-100-R	10	10.0	3.83	3.45	0.0700
LD2-120-R	12	12.0	3.57	3.20	0.0800
LD2-150-R	15	15.0	3.38	2.85	0.0900
LD2-180-R	18	18.0	3.19	2.60	0.1000
LD2-220-R	22	22.0	3.13	2.45	0.1100
LD2-270-R	27	27.0	2.81	2.10	0.1200
LD2-330-R	33	33.0	2.70	2.01	0.1300
LD2-390-R	39	39.0	2.42	1.85	0.1600
LD2-470-R	47	47.0	2.25	1.64	0.1800
LD2-560-R	56	56.0	1.96	1.50	0.2400
LD2-680-R	68	68.0	1.88	1.35	0.2800
LD2-820-R	82	82	1.63	1.28	0.3700
LD2-101-R	100	100	1.53	1.15	0.4300
LD2-121-R	120	120	1.43	1.09	0.4700
LD2-151-R	150	150	1.23	0.95	0.6400
LD2-181-R	180	180	1.15	0.87	0.7100
LD2-221-R	220	220	1.00	0.79	0.9600
LD2-271-R	270	270	0.94	0.73	1.11
LD2-331-R	330	330	0.83	0.64	1.26
LD2-391-R	390	390	0.78	0.58	1.77
LD2-471-R	470	470	0.74	0.55	1.96

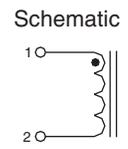
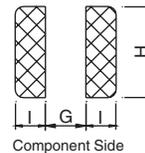
- Notes:  
1) Open Circuit Inductance Test Parameters: 100kHz, 0.25V<sub>rms</sub>, 0.0Adc  
+/-20% except for LD1-330-R to LD1-331-R and LD2-470-R to LD2-471-R which is +/-10%  
2) RMS current for an approximate ΔT of 40°C. It is recommended that the temperature of the part not exceed 125°C  
3) Peak current for an approximate 10% rolloff at 20°C

- 4) DCR limits @ 20°C  
5) Part number definition: LDx-yyy-R  
LDx = product code and size, -yyy = inductance value in μH,  
R = decimal point. If no R is present, third character = # of zeros  
-R suffix = RoHS compliant

### Dimensions - mm



### Recommended Pad Layout



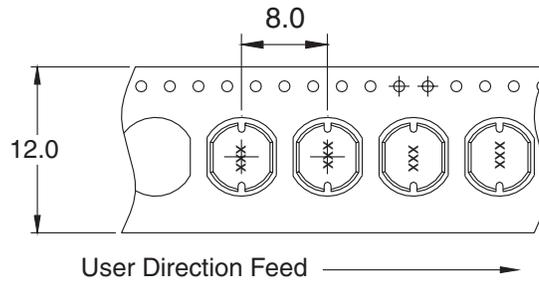
Marking:  
LD1: xxx=inductance value  
per family chart  
LD2: "C" logo  
xxx=inductance value

Dimensions	A +/-0.3	B +/-0.3	C +/-0.3	G ref	H ref	I ref
LD1	4.5	4.0	3.2	1.5	4.5	1.75
LD2	7.8	7.0	5.0	2.0	7.5	3.0

## Packaging Information

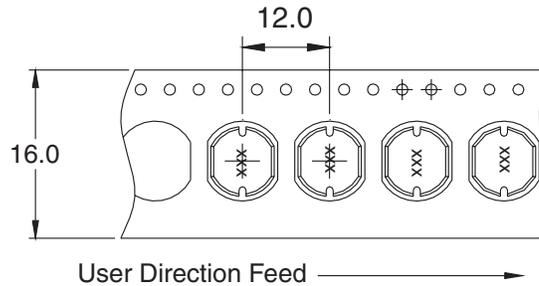
### LD1 Series

Supplied in tape and reel packaging,  
2000 parts per reel, 13" diameter reel.

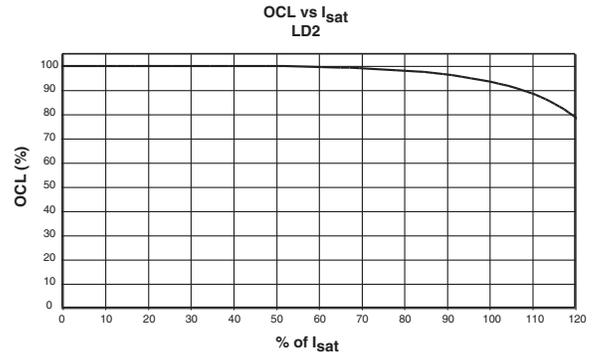
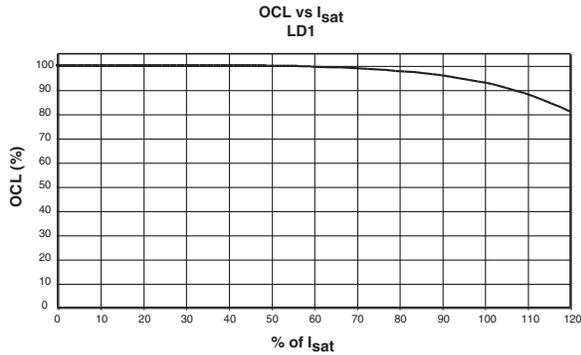


### LD2 Series

Supplied in tape and reel packaging,  
1000 parts per reel, 13" diameter reel.



## Inductance Characteristics



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- Оценку стоимости проекта по компонентам.
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