

Description

- Metalized drum core design utilizes board space
- Current Range from 4.46 to 0.52 Amps
- Inductance range from 1.0 uH to 470uH

Applications

- Buck or Boost inductor
- Noise filtering and output filter chokes
- Computers
- Power Supplies
- Test Equipment Instrumentation

Environmental Data

- Storage temperature: -25°C to +85°C
- Operating ambient temperature: -20°C to +80°C (Range is application specific). Temperature rise is approximately 40°C at rated rms current.
- IR reflow temperature: 240°C for 30 seconds max.



Packaging

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

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

Notes:

- 1) Open Circuit Inductance Test Parameters: 100kHz, 0.25Vrms, 0.0A_{dc} +/-20% except for LD1-330 to LD1-680 and LD2-470 to LD2-471 which is +/-10%
- 2) RMS current for for an approximate 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

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

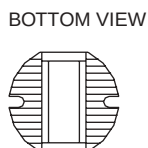
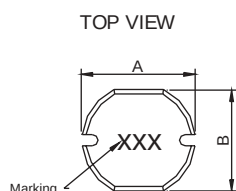
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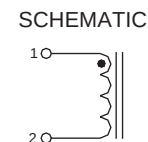
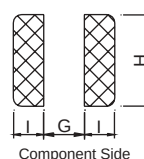
3) Peak current for an approximate 10% rolloff at 20°C

4) DCR limits @ 20°C

Mechanical Diagrams



RECOMMENDED PCB LAYOUT



Marking:

LD1: xxx=inductance value
per family chart

LD2: "C" logo

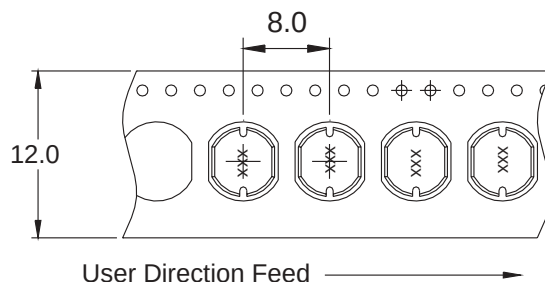
xxx=inductance value

Dimension	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

Dimensions in millimeters.

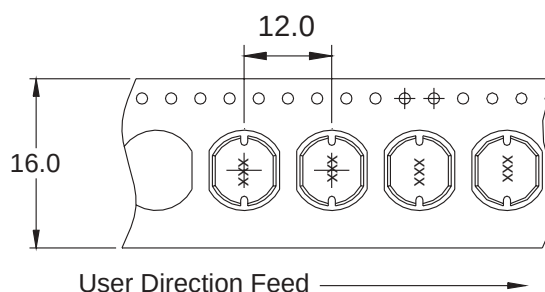
Packaging Information

LD1 Series



Parts packaged on 13" Diameter reel,
2,000 parts per reel.

LD2 Series



Parts packaged on 13" Diameter reel,
1,000 parts per reel.

Rolloff

