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UNSHIELDED SMD POWER INDUCTORS / DL TYPE

FEATURES

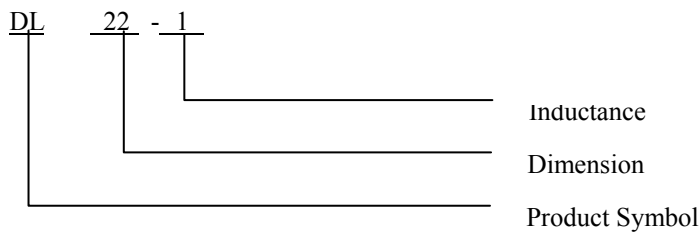
- ◆ Designed for the smallest possible size and high performance
- ◆ They are with high energy storage and very low resistance making them the ideal inductors for DC-DC conversion in the following applications
- ◆ DL16 used ceramic base with gold-plating
- ◆ Others used LCP plastic base



APPLICATIONS

- ◆ Notebook
- ◆ Digital camera & scanner
- ◆ CD-Rom & DVD DC/DC converter

ORDERING CODE



SHAPES

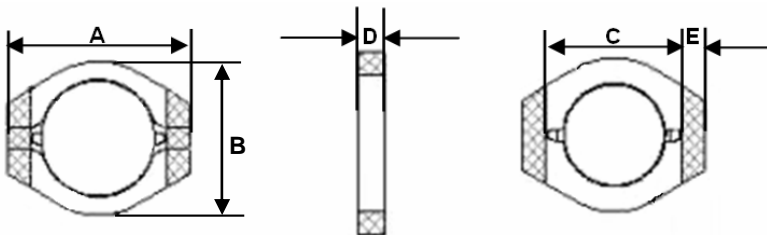


Fig.1

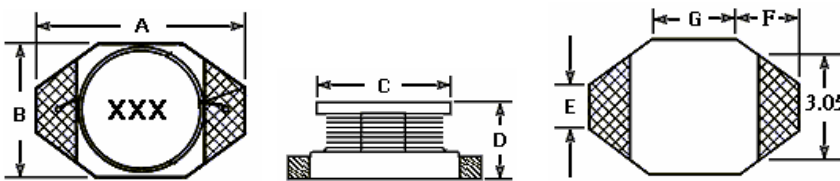


Fig.2

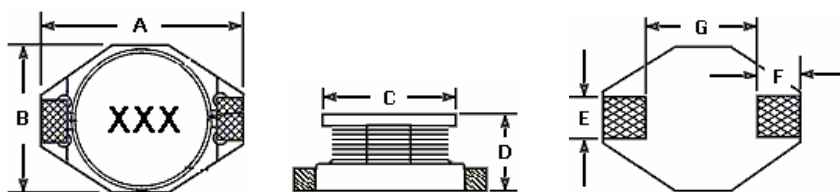


Fig.3

UNSHIELDED SMD POWER INDUCTORS / DL TYPE

DIMENSIONS (UNIT: mm)

Part No.	Fig.	A(Max)	B(Max)	C(Max)	D(Max)	E(Ref.)	F(Ref.)	G(Ref.)
DL17	1	6.60	5.50	4.90	1.15	0.75	-	-
DL25	1	9.14	7.87	7.40	1.65	0.87	-	-
DL16	2	6.60	4.45	3.94	2.92	1.27	1.02	4.32
DL11	3	12.95	9.40	8.38	3.00	2.54	2.54	7.62
DL22	3	12.95	9.40	8.38	5.21	2.54	2.54	7.62
DL33	3	12.95	9.40	8.38	11.43	2.54	2.54	7.62
DL50	3	18.54	15.24	12.70	7.11	2.54	2.54	12.70

ELECTRICAL CHARACTERISTICS FOR DL17

Part No.	Inductance (uH)	DC Resistance (Ω) MAX	SRF. (MHz)	Isat (A)	Irms (A)
1.2	1.2	0.08	190	2.10	1.70
1.5	1.5	0.10	140	1.90	1.50
2.2	2.2	0.12	115	1.60	1.40
3.3	3.3	0.16	90	1.30	1.20
4.7	4.7	0.20	88	1.10	1.10
6.8	6.8	0.32	66	0.90	0.85
10	10	0.41	55	0.80	0.75
15	15	0.55	42	0.65	0.60
22	22	0.85	38	0.50	0.52
33	33	1.30	29	0.40	0.42
47	47	1.80	22	0.35	0.36
68	68	2.50	18	0.30	0.30
100	100	3.50	14	0.25	0.26
150	150	5.00	12	0.18	0.21
220	220	7.00	10	0.16	0.18
330	330	15.0	8	0.13	0.13

- ★ Test Frequency : 100KHz 0.1V
- ★ Tolerance :±10%,±20%
- ★ Operating temperature: -40°C ~ +85°C

ELECTRICAL CHARACTERISTICS FOR DL25

Part No.	Inductance (uH)	DC Resistance (Ω) MAX	SRF. (MHz)	Isat (A)	Irms (A)
4.7	4.7	0.145	90	1.60	1.90
6.8	6.8	0.165	75	1.30	1.70
10	10	0.240	60	1.00	1.50
15	15	0.300	45	0.90	1.30
22	22	0.420	35	0.70	1.00
33	33	0.550	30	0.60	0.90
47	47	0.765	22	0.50	0.70
68	68	1.10	20	0.40	0.60

UNSHIELDED SMD POWER INDUCTORS / DL TYPE

100	100	1.60	15	0.30	0.50
150	150	2.50	12	0.25	0.40
220	220	3.65	10	0.22	0.32
330	330	4.65	8.0	0.18	0.28
470	470	6.75	6.5	0.14	0.24
680	680	9.15	5.5	0.12	0.20
1000	1000	14.20	4.5	0.10	0.16

- ★ Test Frequency : 100KHz 0.1V
- ★ Tolerance :±10%,±20%
- ★ Operating temperature: -40°C ~ +85°C

ELECTRICAL CHARACTERISTICS FOR DL16

Part No.	Inductance (uH)	DC Resistance (Ω) MAX	SRF. (MHz)	Isat (A)	Irms (A)
1	1.0	0.05	130	2.90	2.90
1.5	1.5	0.05	115	2.60	2.80
2.2	2.2	0.07	90	2.30	2.40
3.3	3.3	0.08	70	2.00	2.00
4.7	4.7	0.09	50	1.50	1.50
6.8	6.8	0.13	45	1.20	1.40
10	10	0.16	35	1.10	1.10
15	15	0.23	30	0.90	1.20
22	22	0.37	20	0.70	0.80
33	33	0.51	15	0.58	0.60
47	47	0.64	14	0.50	0.50
68	68	0.86	11	0.40	0.40
100	100	1.27	9.0	0.31	0.30
150	150	2.00	6.0	0.27	0.25
220	220	3.11	5.5	0.22	0.20
330	330	3.80	5.0	0.18	0.16
470	470	5.06	4.0	0.16	0.15
680	680	9.20	3.0	0.14	0.12
1000	1000	13.8	2.0	0.10	0.07

- ★ Test Frequency : 100KHz 0.1V
- ★ Tolerance :±10%,±20%
- ★ Operating temperature: -40°C ~ +85°C

ELECTRICAL CHARACTERISTICS FOR DL11

Part No.	Inductance (uH)	DC Resistance (Ω) MAX	SRF. (MHz)	Isat (A)	Irms (A)
10	10	0.11	35	2.40	2.00
15	15	0.15	33	2.00	1.50
22	22	0.23	25	1.60	1.30
33	33	0.30	19	1.40	1.10
47	47	0.39	14	1.00	0.80
68	68	0.66	12	0.90	0.70
100	100	0.84	10	0.70	0.60
150	150	1.20	8.0	0.60	0.50

UNSHIELDED SMD POWER INDUCTORS / DL TYPE

220	220	1.90	6.0	0.50	0.40
330	330	2.70	5.0	0.40	0.30
470	470	4.00	4.0	0.30	0.20
680	680	5.30	3.0	0.20	0.10
1000	1000	8.40	2.5	0.10	0.05

- ★ Test Frequency : 100KHz 0.1V
- ★ Tolerance :±10%,±20%
- ★ Operating temperature: -40°C ~ +85°C

ELECTRICAL CHARACTERISTICS FOR DL22

Part No.	Inductance (μ H)	DC Resistance (Ω) MAX	SRF. (MHz)	Isat (A)	Irms (A)
1	1.0	0.008	60	7.60	7.10
2.2	2.2	0.010	50	6.50	5.90
4.7	4.7	0.018	45	5.40	4.80
6.8	6.8	0.027	38	4.60	4.40
10	10	0.038	30	3.80	3.90
15	15	0.046	27	3.00	3.10
22	22	0.085	19	2.60	2.70
33	33	0.100	15	2.00	2.10
47	47	0.140	12	1.60	1.80
68	68	0.200	10	1.40	1.50
100	100	0.280	9.0	1.20	1.30
150	150	0.400	6.0	1.00	1.00
220	220	0.610	5.0	0.80	0.80
330	330	1.020	4.5	0.60	0.60
470	470	1.270	3.5	0.50	0.50
680	680	2.020	2.5	0.40	0.40
1000	1000	3.000	2.0	0.30	0.30

- ★ Test Frequency : 100KHz 0.1V
- ★ Tolerance :±10%,±20%
- ★ Operating temperature: -40°C ~ +85°C

ELECTRICAL CHARACTERISTICS FOR DL33

Part No.	Inductance (μ H)	DC Resistance (Ω) MAX	SRF. (MHz)	Isat (A)	Irms (A)
10	10	0.040	22	8.00	3.50
15	15	0.050	18	7.00	3.00
22	22	0.066	11	5.50	2.50
33	33	0.080	9.0	4.00	2.00
47	47	0.110	8.0	3.80	1.60
68	68	0.170	7.0	3.00	1.20
100	100	0.220	5.0	2.50	1.20
150	150	0.340	4.0	2.00	0.90

UNSHIELDED SMD POWER INDUCTORS / DL TYPE

220	220	0.440	3.5	1.60	0.70
330	330	0.700	2.5	1.20	0.60
470	470	0.950	2.0	1.00	0.30
680	680	1.200	2.0	1.00	0.20
1000	1000	2.000	1.5	0.80	0.10

- ★ Test Frequency : 100KHz 0.1V
- ★ Tolerance :±10%,±20%
- ★ Operating temperature: -40°C ~ +85°C

ELECTRICAL CHARACTERISTICS FOR DL50

Part No.	Inductance (uH)	DC Resistance (Ω) MAX	SRF. (MHz)	Isat (A)	Irms (A)
1	1.0	0.009	80	20.00	8.60
2.2	2.2	0.014	80	16.00	7.10
3.3	3.3	0.018	60	14.00	6.20
4.7	4.7	0.019	50	13.00	5.50
5.6	5.6	0.020	40	12.00	5.30
10	10	0.031	30	10.00	4.30
15	15	0.036	22	8.00	4.00
22	22	0.047	20	7.00	3.50
33	33	0.066	15	5.50	3.00
47	47	0.086	9.0	4.50	2.60
68	68	0.130	8.0	3.50	2.30
100	100	0.190	7.0	3.00	1.80
150	150	0.250	6.0	2.60	1.50
220	220	0.380	5.0	2.40	1.20
330	330	0.560	4.0	1.90	1.00
470	470	0.850	3.0	1.40	0.82
680	680	1.100	2.5	1.20	0.72
1000	1000	1.800	2.0	1.00	0.56

- ★ Test Frequency : 100KHz 0.1V
- ★ Tolerance :±10%,±20%
- ★ Operating temperature: -40°C ~ +85°C