

SMD Power Inductor - TLCDR Series



Characteristics and Applications:

DR43/DR54/DR73/DR75/DR104/DR105/DR106

- ⊕ Excellent solderability and heat resistance, SMT, compact size,
- ⊕ Operating and storage temperature range -40°C to +125°C
- ⊕ Ferrite core material
- ⊕ Applicable to portable telecommunication devices, portable computer, DC/DC conversion, PDA.

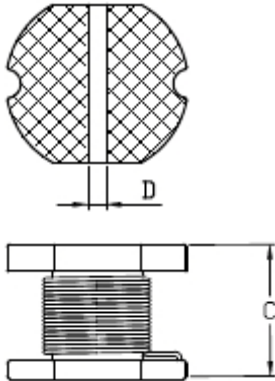
Ordering Code

TLCDR 43 100 K T
 (1) (2) (3) (4) (5)

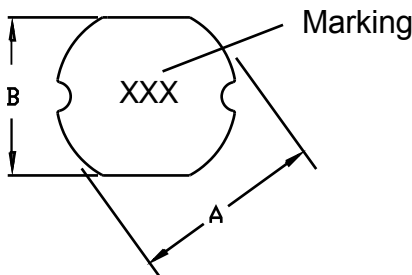
- (1) TLCDR Series Code
- (2) Size Code: 43/54/73/75/104/105/106
- (3) Inductance
- (4) Tolerance J; ± 5% K: ± 10 M: ± 20
- (5) Package T: Tape and Reel; B: Bulk

- R-indicates decimal
- 0: multiplier 1
- 1: multiplier 10
- 2: multiplier 100
- 3: multiplier 1000

Overall Dimensions of Inductor



P/N	A	B	C(Max)	D
DR43	φ4.5 ± 0.3	4.0 ± 0.3	3.5	1.7 ± 0.2
DR54	φ5.8 ± 0.3	5.2 ± 0.3	4.8	2.2 ± 0.2
DR73	φ7.8 ± 0.3	7.0 ± 0.3	3.8	2.9 ± 0.2
DR75	φ7.8 ± 0.3	7.0 ± 0.3	5.3	3.0 ± 0.2
DR104	φ10.0 ± 0.3	9.0 ± 0.3	4.3	4.0 ± 0.2
DR105	φ10.0 ± 0.3	9.0 ± 0.3	5.7	4.9 ± 0.2
DR106	φ10.0 ± 0.3	9.0 ± 0.3	5.7	4.9 ± 0.2



Electrical Parameters

TLCDR43

No.	Part No.	Marking	L (μ H)	Test Freq.	DCR(Ω) (max.)	I rms (A)
1	TLCDR43-1R0M	1R0	1.0	100 KHz	48.7m	2.56
2	TLCDR43-1R4M	1R4	1.4	100 KHz	56.2m	2.52
3	TLCDR43-1R8M	1R8	1.8	100 KHz	63.7m	1.95
4	TLCDR43-2R2M	2R2	2.2	100 KHz	71.2m	1.75
5	TLCDR43-2R7M	2R7	2.7	100 KHz	78.7m	1.58
6	TLCDR43-3R3M	3R3	3.3	100 KHz	86.2m	1.44
7	TLCDR43-3R9M	3R9	3.9	100 KHz	93.7m	1.33
8	TLCDR43-4R7M	4R7	4.7	100 KHz	108.7m	1.15
9	TLCDR43-5R6M	5R6	5.6	100 KHz	125.7m	0.99
10	TLCDR43-6R8M	6R8	6.8	100 KHz	131.2m	0.95
11	TLCDR43-8R2M	8R2	8.2	100 KHz	146.2m	0.84
12	TLCDR43-100M	100	10	100 KHz	0.182	1.04
13	TLCDR43-120M	120	12	100 KHz	0.210	0.97
14	TLCDR43-150M	150	15	100 KHz	0.235	0.85
15	TLCDR43-180M	180	18	100 KHz	0.338	0.74
16	TLCDR43-220M	220	22	100 KHz	0.378	0.68
17	TLCDR43-270M	270	27	100 KHz	0.522	0.62
18	TLCDR43-330K	330	33	100 KHz	0.540	0.56
19	TLCDR43-390K	390	39	100 KHz	0.587	0.52
20	TLCDR43-470K	470	47	100 KHz	0.844	0.44
21	TLCDR43-560K	560	56	100 KHz	0.937	0.42
22	TLCDR43-680K	680	68	100 KHz	1.117	0.37

TLCDR54

No.	Part No.	Marking	L (μ H)	Test Freq.	D.C.R(OHM) (max.)	I rms (A)
1	TLCDR54-100M	100	10	100 KHz	0.10	1.44
2	TLCDR54-120M	120	12	100 KHz	0.12	1.40
3	TLCDR54-150M	150	15	100 KHz	0.14	1.30
4	TLCDR54-180M	180	18	100 KHz	0.15	1.23
5	TLCDR54-220M	220	22	100 KHz	0.18	1.11
6	TLCDR54-270M	270	27	100 KHz	0.20	0.97
7	TLCDR54-330K	330	33	100 KHz	0.23	0.88
8	TLCDR54-390K	390	39	100 KHz	0.32	0.80
9	TLCDR54-470K	470	47	100 KHz	0.37	0.72
10	TLCDR54-560K	560	56	100 KHz	0.42	0.68
11	TLCDR54-680K	680	68	100 KHz	0.46	0.61
12	TLCDR54-820K	820	82	100 KHz	0.60	0.58
13	TLCDR54-101K	101	100	10 KHz	0.70	0.52
14	TLCDR54-121K	121	120	10 KHz	0.93	0.48
15	TLCDR54-151K	151	150	10 KHz	1.10	0.40
16	TLCDR54-181K	181	180	10 KHz	1.38	0.38
17	TLCDR54-221K	221	220	10 KHz	1.57	0.35
18	TLCDR54-271K	271	270	10 KHz	1.85	0.30

Electrical Parameters

TLCDR73

No.	Part No.	Marking	L (μ H)	Test Freq.	DCR(Ω) (max.)	I rms (A)
1	TLCDR73-100M	100	10	100 KHz	0.0803	1.44
2	TLCDR73-120M	120	12	100 KHz	0.0897	1.39
3	TLCDR73-150M	150	15	100 KHz	0.104	1.24
4	TLCDR73-180M	180	18	100 KHz	0.111	1.12
5	TLCDR73-220M	220	22	100 KHz	0.129	1.07
6	TLCDR73-270M	270	27	100 KHz	0.153	0.94
7	TLCDR73-330M	330	33	100 KHz	0.170	0.85
8	TLCDR73-390M	390	39	100 KHz	0.217	0.74
9	TLCDR73-470M	470	47	100 KHz	0.252	0.68
10	TLCDR73-560K	560	56	100 KHz	0.282	0.64
11	TLCDR73-680K	680	68	100 KHz	0.332	0.59
12	TLCDR73-820K	820	82	100 KHz	0.406	0.54
13	TLCDR73-101K	101	100	10 KHz	0.481	0.51
14	TLCDR73-121K	121	120	10 KHz	0.536	0.49
15	TLCDR73-151K	151	150	10 KHz	0.755	0.40
16	TLCDR73-181K	181	180	10 KHz	1.022	0.36
17	TLCDR73-221K	221	220	10 KHz	1.200	0.31
18	TLCDR73-271K	271	270	10 KHz	1.306	0.29
19	TLCDR73-331K	331	330	10 KHz	1.495	0.28

TLCDR75

No.	Part No.	Marking	L (μ H)	Test Freq.	D.C.R(OHM) (max.)	I rms (A)
1	TLCDR75-100K	100	10	100 KHz	0.07	2.30
2	TLCDR75-120K	120	12	100 KHz	0.08	2.00
3	TLCDR75-150K	150	15	100 KHz	0.09	1.80
4	TLCDR75-180K	180	18	100 KHz	0.10	1.60
5	TLCDR75-220K	220	22	100 KHz	0.11	1.50
6	TLCDR75-270K	270	27	100 KHz	0.12	1.30
7	TLCDR75-330K	330	33	100 KHz	0.13	1.20
8	TLCDR75-390K	390	39	100 KHz	0.16	1.10
9	TLCDR75-470K	470	47	100 KHz	0.18	1.10
10	TLCDR75-560K	560	56	100 KHz	0.24	0.94
11	TLCDR75-680K	680	68	100 KHz	0.28	0.85
12	TLCDR75-820K	820	82	100 KHz	0.37	0.78
13	TLCDR75-101K	101	100	10 KHz	0.43	0.72
14	TLCDR75-121K	121	120	10 KHz	0.47	0.66
15	TLCDR75-151K	151	150	10 KHz	0.64	0.58
16	TLCDR75-181K	181	180	10 KHz	0.71	0.51
17	TLCDR75-221K	221	220	10 KHz	0.96	0.49
18	TLCDR75-271K	271	270	10 KHz	1.11	0.42
19	TLCDR75-331K	331	330	10 KHz	1.26	0.40
20	TLCDR75-391K	391	390	10 KHz	1.77	0.36
21	TLCDR75-471K	471	470	10 KHz	1.96	0.34

Electrical Parameters

TLCDR104

No.	Part No.	Marking	L (μ H)	Test Freq.	DCR(Ω) (max.)	I rms (A)
1	TLCDR104-100M	100	10	100 KHz	0.053	2.38
2	TLCDR104-120M	120	12	100 KHz	0.061	2.13
3	TLCDR104-150M	150	15	100 KHz	0.070	1.87
4	TLCDR104-180M	180	18	100 KHz	0.081	1.73
5	TLCDR104-220M	220	22	100 KHz	0.088	1.60
6	TLCDR104-270M	270	27	100 KHz	0.100	1.44
7	TLCDR104-330M	330	33	100 KHz	0.120	1.26
8	TLCDR104-390M	390	39	100 KHz	0.151	1.20
9	TLCDR104-470M	470	47	100 KHz	0.170	1.10
10	TLCDR104-560K	560	56	100 KHz	0.199	1.01
11	TLCDR104-680K	680	68	100 KHz	0.223	0.91
12	TLCDR104-820K	820	82	100 KHz	0.252	0.85
13	TLCDR104-101K	101	100	10 KHz	0.344	0.74
14	TLCDR104-121K	121	120	10 KHz	0.396	0.69
15	TLCDR104-151K	151	150	10 KHz	0.544	0.61
16	TLCDR104-181K	181	180	10 KHz	0.621	0.56
17	TLCDR104-221K	221	220	10 KHz	0.721	0.53
18	TLCDR104-271K	271	270	10 KHz	0.949	0.45
19	TLCDR104-331K	331	330	10 KHz	1.100	0.42
20	TLCDR104-391K	391	390	10 KHz	1.245	0.38
21	TLCDR104-471K	471	470	10 KHz	1.526	0.35
22	TLCDR104-561K	561	560	10 KHz	1.904	0.32

TLCDR105

No.	Part No.	Marking	L (μ H)	Test Freq.	D.C.R(OHM) (max.)	I rms (A)
1	TLCDR105-100M	100	10	100 KHz	0.06	2.60
2	TLCDR105-120M	120	12	100 KHz	0.07	2.45
3	TLCDR105-150M	150	15	100 KHz	0.08	2.27
4	TLCDR105-180M	180	18	100 KHz	0.09	2.15
5	TLCDR105-220M	220	22	100 KHz	0.10	1.95
6	TLCDR105-270M	270	27	100 KHz	0.11	1.76
7	TLCDR105-330M	330	33	100 KHz	0.12	1.50
8	TLCDR105-390M	390	39	100 KHz	0.14	1.37
9	TLCDR105-470K	470	47	100 KHz	0.17	1.28
10	TLCDR105-560K	560	56	100 KHz	0.19	1.17
11	TLCDR105-680K	680	68	100 KHz	0.22	1.11
12	TLCDR105-820K	820	82	100 KHz	0.25	1.00
13	TLCDR105-101K	101	100	10 KHz	0.35	0.97
14	TLCDR105-121K	121	120	10 KHz	0.40	0.89
15	TLCDR105-151K	151	150	10 KHz	0.47	0.78
16	TLCDR105-181K	181	180	10 KHz	0.63	0.72
17	TLCDR105-221K	221	220	10 KHz	0.73	0.66
18	TLCDR105-271K	271	270	10 KHz	0.97	0.57
19	TLCDR105-331K	331	330	10 KHz	1.15	0.52
20	TLCDR105-391K	391	390	10 KHz	1.30	0.48
21	TLCDR105-471K	471	470	10 KHz	1.48	0.42
22	TLCDR105-561K	561	560	10 KHz	1.90	0.33

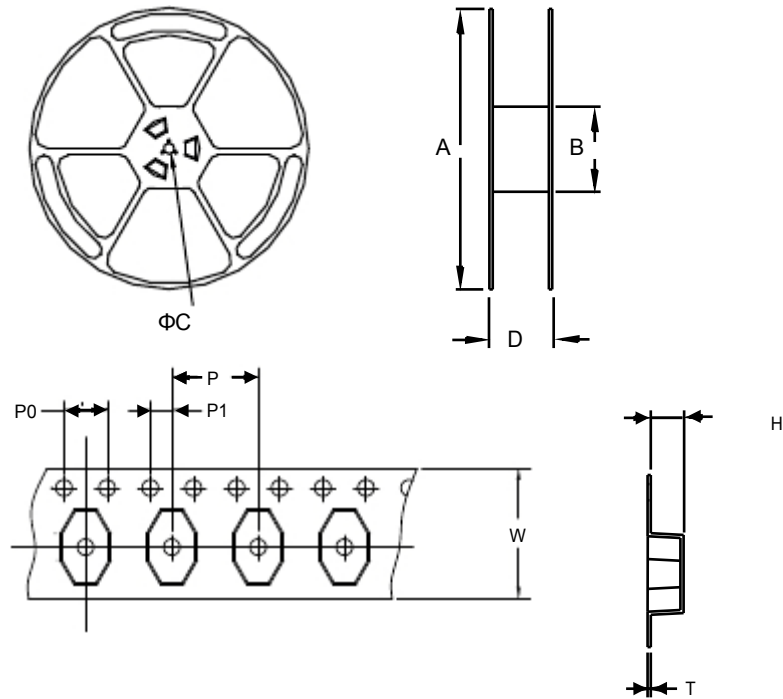
Electrical Parameters

TLCDR106

No.	Part No.	L (μ H)	Test Freq. @(1V)	SRF (MHz)	I _{sat} (A)	DCR(Ω) (max.)	I _{rms} (A)
1	TLCDR106-1R5M	1.5	1MHz	69.6	8.0	0.018	7.2
2	TLCDR106-2R2M	2.2	1MHz	57.7	6.6	0.021	6.0
3	TLCDR106-3R3M	3.3	1MHz	48.8	6.0	0.024	5.4
4	TLCDR106-3R9M	3.9	1MHz	406	5.7	0.027	5.2
5	TLCDR106-4R7M	4.7	1MHz	37.4	5.2	0.036	4.7
6	TLCDR106-5R6M	5.6	1MHz	35.6	5.0	0.04	4.5
7	TLCDR106-6R8M	6.8	1MHz	32.1	4.6	0.044	4.2
8	TLCDR106-8R2M	8.2	1MHz	27.9	4.3	0.048	4.1
9	TLCDR106-100M	10	1MHz	25	4.0	0.06	3.8
10	TLCDR106-120M	12	1MHz	23	3.8	0.07	3.6
11	TLCDR106-150M	15	1MHz	19.8	3.6	0.08	3.4
12	TLCDR106-180M	18	1MHz	19.3	3.0	0.09	2.8
13	TLCDR106-220M	22	1MHz	16	2.8	0.1	2.6
14	TLCDR106-270M	27	1MHz	13.3	2.6	0.11	2.3
15	TLCDR106-330M	33	1MHz	12.1	2.4	0.12	2.2
16	TLCDR106-390M	39	1MHz	12	2.1	0.14	1.9
17	TLCDR106-470K	47	1MHz	11	1.95	0.17	1.8
18	TLCDR106-560K	56	1MHz	10.2	1.8	0.19	1.7
19	TLCDR106-680K	68	1MHz	9.4	1.7	0.22	1.6
20	TLCDR106-820K	82	1MHz	8.8	1.6	0.25	1.5
21	TLCDR106-101K	100	1KHz	7.3	1.4	0.35	1.3
22	TLCDR106-121K	120	1KHz	6.6	1.3	0.4	1.2
23	TLCDR106-151K	150	1KHz	6.6	1.2	0.47	1.1
24	TLCDR106-181K	180	1KHz	6.1	1.1	0.63	1.0
25	TLCDR106-221K	220	1KHz	5.3	1.0	0.73	0.85
26	TLCDR106-271K	270	1KHz	4.3	0.85	0.97	0.75
27	TLCDR106-331K	330	1KHz	4.3	0.75	1.15	0.7
28	TLCDR106-391K	390	1KHz	3.3	0.7	1.3	0.65
29	TLCDR106-471K	470	1KHz	3.3	0.65	1.48	0.6
30	TLCDR106-561K	560	1KHz	3.3	0.6	1.9	0.55
31	TLCDR106-681K	680	1KHz	2.8	0.55	2.25	0.5
32	TLCDR106-821K	820	1KHz	2.2	0.5	2.55	0.45

Tolerance: M: \pm 20%; K: \pm 10%

Packaging:



Series P/N	Reel dimensions (mm)					Tape dimensions (mm)						Parts per reel		Quantity per	
	A	B	C	D	E	W	P	P0	P1	H	T	7"	13"	Box	Carton
TLCDR43	340	100	13	16.5	12.5	12	8	4	2	3.40	0.35	---	2,800	5,600	16,800
TLCDR54	340	100	13	21.5	16.5	16	12	4	2	5.00	0.30	---	1,200	2,400	7,200
TLCDR73	340	100	13	21.5	16.5	16	12	4	2	4.15	0.35	---	1,400	2,800	8,400
TLCDR75	340	100	13	21.5	16.5	16	12	4	2	5.80	0.30	---	1,000	2,000	6,000
TLCDR104	340	100	13	29.5	24.5	24	12	4	2	4.80	0.30	---	1,200	1,200	4,800
TLCDR105	340	100	13	29.5	24.5	24	16	4	2	6.40	0.30	---	700	700	2,800
TLCDR106	340	100	13	29.5	24.5	24	16	4	2	6.40	0.30	---	700	700	2,800