

Shielded SMD Power Inductor-PDRH



Inductance and rated current ranges

- PDRH0301 1.0~820μH 1.6~0.06A
- PDRH0302 0.47~2200μH 1.8~0.035A
- PDRH0303 1.0~6800μH 1.9~0.017A
- PDRH0418 1.0~100μH 1.5~0.10A
- PDRH0501 1.0~560μH 1.62~0.08A
- PDRH0502 0.47~10000μH 2.33~0.026A
- PDRH0503 0.47~2500μH 4.82~0.045A

●

- Test equipment:

L: HP4284A Precision LCR meter.

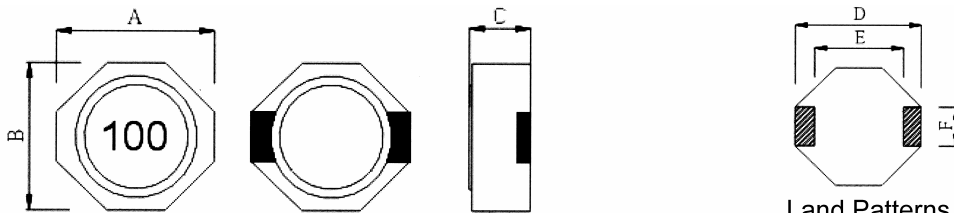
DCR: Milli-ohm meter.

Electrical Specification at 25°C

Features

- Small size with the electrode attached to the ferrite RI core directly.
Excellent property with high saturation for surface mounting.

Dimension



Land Patterns

Unit: mm

Codes	A	B	C(Max)	D(Max)	E(Ref.)	F(Ref.)
PDRH0301	3.85±0.3	3.85±0.3	1.25	4.55	3.00	1.90
PDRH0302	3.85±0.3	3.85±0.3	2.00	4.55	3.00	1.90
PDRH0303	3.85±0.3	3.85±0.3	3.00	4.55	3.00	1.90
PDRH0418	3.85±0.3	3.85±0.3	< 68uH=1.80 ≥68uH=2.00	4.80	3.00	1.60
PDRH0501	5.30max	5.30max	1.25	5.70	3.90	1.90
PDRH0502	5.30max	5.30max	2.00	5.70	3.90	1.90
PDRH0503	5.30max	5.30max	3.00	5.70	3.90	1.90
PDRH0601	5.90±0.20	5.90±0.20	1.00	6.50	2.70	4.40
PDRH0602	5.90±0.20	5.90±0.20	2.00	6.50	2.70	4.40
PDRH0603	5.90±0.20	5.90±0.20	3.00	6.50	2.70	4.40

Applications

- OA equipment.
- Notebook PCs
- LCD monitor
- Portable terminal equipment
- DC/DC converters, etc

Product Identification

PDRH 0418 M I 100

(1) (2) (3) (4) (5)

(1)Type: SMD Power Inductors

(2)Dimensions (mm): 0418=3.85×3.85×1.8

(3)Tolerance: M=20%,N=30%

(4) Packaging style: T (Tape and Reel)

(5) Inductance:1R1=1.1μH, 470=47μH, 101 =100μH

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Electrical Characteristics

Part No.	L (μ H)	Tol. (%)	DC Resistance (Ω)Max			Rated DC Current (A) Max		
			0301	0302	0303	0301	0302	0303
R47	0.47	N		0.017			1.84	
1R0	1	M, N	0.06	0.03	0.009	1.6	1.8	1.9
1R2	1.2	M, N	0.065	0.083	0.01	1.4	1.7	1.75
1R5	1.5	M, N	0.077	0.052	0.013	1.24	1.6	1.45
1R8	1.8	M, N	0.093	0.056		1.22	1.55	
2R0	2	N		0.057	0.016		1.51	1.25
2R2	2.2	M, N	0.125	0.058	0.017	1.2	1.5	1.15
2R4	2.4	N	0.139	0.059		0.98	1.41	
2R5	2.5	M, N		0.059	0.018		1.4	1.05
2R7	2.7	M, N		0.06	0.02		1.35	1
3R3	3.3	M, N	0.187	0.064	0.024	0.89	1.3	0.96
3R5	3.5	M, N	0.21	0.127	0.025	0.85	1.3	0.95
3R9	3.9	M, N	0.22		0.033	0.78		0.87
4R7	4.7	M, N	0.24	0.146	0.039	0.71	1.1	0.78
5R6	5.6	M, N	0.32	0.176	0.044	0.62	0.95	0.74
6R2	6.2	M		0.22			0.91	
6R8	6.8	M, N	0.35	0.238	0.051	0.57	0.9	0.68
8R2	8.2	M, N	0.47	0.272	0.065	0.52	0.8	0.57
100	10	M	0.57	0.299	0.092	0.47	0.7	0.43
120	12	M	0.75		0.1	0.43		0.38
150	15	M	0.81	0.472	0.113	0.38	0.61	0.33
180	18	M	1.06	0.552	0.125	0.35	0.58	0.3
220	22	M	1.15	0.592	0.146	0.32	0.52	0.28
270	27	M	1.67	0.63	0.176	0.29	0.44	0.26
330	33	M	1.84	1.075	0.214	0.28	0.43	0.23
390	39	M	2.31	1.269	0.225	0.25	0.37	0.21
470	47	M	2.63	1.309	0.304	0.22	0.34	0.19
500	50	M	2.7			0.21		
560	56	M	2.86	1.96	0.324	0.2	0.29	0.17
680	68	M	3.94	2.613	0.472	0.18	0.25	0.156
820	82	M	4.9	2.95	0.539	0.16	0.2	0.142
101	100	M	5.74	3.255	0.608	0.14	0.19	0.128
121	120	M	7.31	3.35	0.757	0.13	0.15	0.116
151	150	M	9.08	3.55	0.882	0.12	0.12	0.106
181	180	M	9.5	4	1.13	0.11	0.1	0.095
221	220	M		4.9	1.269		0.09	0.087
271	270	M			1.57			0.08
331	330	M	20.99	7.28	1.93	0.08	0.08	0.078
391	390	M			2.36			0.073
471	470	M			2.77			0.068
561	560	M			3.52			0.065
681	680	M		13.37	4.25		0.07	0.056
821	820	M	54.03		4.83	0.06		0.05
102	1000	M		19.55	6.26		0.065	0.047
122	1200	M			7.86			0.043
152	1500	M		36.15	9.98		0.038	0.039
182	1800	M		57.62	12.17		0.036	0.036
222	2200	M		84.43			0.035	
272	2700	M			16.12			0.029
332	3300	M			22.04			0.026
392	3900	M			27.5			0.022
472	4700	M			30.8			0.02
562	5600	M			35.94			0.019
682	6800	M			44.01			0.017

1. Test Frequency : 1.0uH~8R2 @ 100 kHz 0.25Vrms. 10uH~1800 @ 1KHz 0.25Vrms.
2. Rated DC Current : The current when the inductance decrease to 70% of its initial value.
3. Operating temperature range -20~85°C.

Shielded SMD Power Inductor- PDRH

Electrical Characteristics

0418

Part No.	L (μ H)	Tol.	DC Resistance (Ω)Max	Rated DC Current (A) Max
PDRH0418NT1R0	1.0	M	0.058	1.5
PDRH0418NT1R2	1.2	M	0.070	1.4
PDRH0418NT2R2	2.2	M	0.082	1.0
PDRH0418NT3R3	3.3	M	0.105	0.92
PDRH0418NT3R9	3.9	M	0.120	0.80
PDRH0418NT4R7	4.7	M	0.150	0.76
PDRH0418NT5R6	5.6	M	0.180	0.69
PDRH0418NT6R8	6.8	M	0.220	0.62
PDRH0418NT8R2	8.2	M	0.240	0.56
PDRH0418MT100	10	N	0.255	0.50
PDRH0418MT150	15	N	0.390	0.40
PDRH0418MT220	22	N	0.610	0.32
PDRH0418MT330	33	N	0.920	0.28
PDRH0418MT470	47	N	1.130	0.20
PDRH0418MT680	68	N	1.520	0.15
PDRH0418MT101	100	N	2.120	0.10

1. Test Frequency : 100 kHz 0.1Vrms.

2. Rated DC Current : The current when the inductance decrease to 70% of its initial value.

3. Operating temperature range -20~85°C.

Shielded SMD Power Inductor- PDRH

Electrical Characteristics

Part No.	L (μH)	Tol.	DC Resistance (Ω)Max			Rated DC Current (A) Max		
			0501	0502	0503	0501	0502	0503
R47	0.47	N		0.015	0.01		2.33	4.82
1R0	1	N	0.044	0.024	0.015	1.62	2.27	4
1R1	1.1	M ,N			0.02			3.87
1R2	1.2	M, N	0.045	0.044	0.022	1.61	2.15	3.8
2R0	2	M, N	0.062	0.046	0.027	1.3	1.9	2.92
2R2	2.2	M, N	0.067	0.059	0.029	1.23	1.63	2.41
3R3	3.3	M, N	0.095	0.062	0.034	0.93	1.5	2.36
3R5	3.5	M, N	0.096	0.073	0.04	0.93	1.34	1.95
3R9	3.9	M ,N	0.042			1.93		
4R1	4.1	M N		0.081			1.2	
4R7	4.7	M, N	0.12	0.087	0.045	0.78	1.14	1.87
5R6	5.6	M, N	0.14		0.052	0.74		1.6
5R6	5.6	M ,N						
6R2	6.2	M ,N	0.062			1.55		
6R8	6.8	M, N	0.17	0.105	0.068	0.62	0.95	1.51
8R2	8.2	M, N	0.23	0.139	0.084	0.6	0.9	1.38
100	10	M	0.238	0.15	0.09	0.56	0.76	1.33
120	12	M			0.12			1.06
150	15	M	0.402	0.21	0.142	0.42	0.63	1.05
180	18	M			0.192			0.9
220	22	M	0.55	0.275	0.208	0.38	0.56	0.86
270	27	M		0.452	0.222		0.48	0.75
330	33	M	0.78	0.455	0.257	0.31	0.44	0.72
390	39	M			0.32			0.64
470	47	M	1.14	0.73	0.352	0.27	0.35	0.62
560	56	M			0.459			0.53
680	68	M	1.53	0.935	0.525	0.2	0.3	0.51
820	82	M		1.3	0.77		0.27	0.48
101	100	M	2.13	1.5	0.801	0.16	0.23	0.43
121	120	M	2.37	1.91	0.85	0.15	0.22	0.34
151	150	M	3.39	2.68	1.1	0.13	0.21	0.26
181	180	M	4.12	3.04	1.19	0.12	0.2	0.24
221	220	M	4.51	3.52	1.53	0.11	0.195	0.2
271	270	M	5.62	4.38		0.1	0.193	
331	330	M	6.75	5.56	2.03	0.098	0.19	0.19
391	390	M			3			0.16
471	470	M	11.23	7.82	3.5	0.084	0.18	0.15
561	560	M	12.38		4.08	0.08		0.14
821	820	M		15			0.12	
122	1200	M			8.5			0.07
152	1500	M			10			0.065
182	1800	M			13.15			0.062
222	2200	M			19			0.05
252	2500	M			20			0.045
392	3900	M		89.88			0.042	
472	4700	M		101.12			0.038	
562	5600	M		115			0.036	
682	6800	M		152			0.03	
103	10000	M		201.16			0.026	

1. Test Frequency : 1.0uH~8R2 @ 100 kHz 0.25Vrms. 10uH~1800 @ 1KHz 0.25Vrms.

2. Rated DC Current : The current when the inductance decrease to 70% of its initial value.

3. Operating temperature range -20~85°C.

Electrical Characteristics

Part No.	L (μH)	Tol.	DC Resistance (Ω)Max			Rated DC Current (A) Max		
			0601	0602	0603	0601	0602	0603
1R0	1	M,N	0.046	0.021	0.014	2.04	3.82	4.7
1R2	1.2	M,N		0.025	0.016		3.02	3.9
1R5	1.5	M,N	0.052	0.028	0.018	1.46	2.58	3.52
1R8	1.8	M,N		0.033	0.019		2.52	3.25
2R0	2	M,N	0.06		0.022	1.22		2.95
2R2	2.2	M,N	0.06	0.038	0.022	1.22	2.3	2.95
2R4	2.4	M,N		0.039	0.024		2.22	2.75
2R7	2.8	M,N	0.07	0.045	0.027	1.12	2.02	2.55
3R3	3.3	M,N	0.09	0.05	0.03	0.94	1.95	2.45
3R9	3.9	M,N	0.1	0.055	0.034	0.86	1.92	2.35
4R7	4.7	M,N	0.12	0.064	0.042	0.84	1.62	2.25
5R6	5.6	M,N	0.14	0.076	0.048	0.74	1.42	2.05
6R2	6.2	M,N	0.15	0.088		0.71	1.32	
6R8	6.8	M,N	0.16	0.097	0.054	0.68	1.27	1.85
7R3	7.3	M,N		0.098			1.22	
7R5	7.5	M,N		0.1			1.12	
8R2	8.2	M,N	0.19	0.105	0.058	0.62	1.1	1.65
9R0	9	M,N		0.11			1.02	
100	10	M	0.21	0.13	0.065	0.58	0.98	1.45
120	12	M	0.27	0.17	0.082	0.52	0.96	1.35
150	15	M	0.33	0.19	0.096	0.48	0.94	1.25
180	18	M	0.44	0.22	0.11	0.42	0.92	1.15
220	22	M	0.46	0.26	0.14	0.4	0.82	0.98
270	27	M	0.56	0.32	0.17	0.34	0.74	0.9
330	33	M	0.63	0.37	0.21	0.32	0.62	0.8
390	39	M	0.78	0.47	0.24	0.3	0.52	0.72
470	47	M	0.9	0.56	0.28	0.28	0.5	0.7
560	56	M	1.08	0.71	0.34	0.24	0.44	0.66
680	68	M	1.34	0.81	0.41	0.22	0.4	0.58
820	82	M	1.54	1.01	0.49	0.2	0.34	0.52
101	100	M	1.96	1.3	0.55	0.18	0.32	0.46
121	120	M	2.3	1.43	0.7	0.16	0.26	0.42
151	150	M	2.7	1.86	0.78	0.14	0.24	0.36
181	180	M	3.47	2.25	0.96	0.13	0.22	0.34
221	220	M	4.5	2.75	1.08	0.12	0.2	0.32
271	270	M	5.62	3.49	1.36	0.1	0.18	0.28
331	330	M	6.35	4.09	1.82	0.096	0.16	0.24
391	390	M	7.52	4.64	2.05	0.094	0.15	0.22
471	470	M	8.64	5.8	2.58	0.084	0.14	0.2
561	560	M	11.02	7.34	3.16	0.074	0.13	0.18
681	680	M	13.04	9.23	4.04	0.072	0.12	0.16
821	820	M	17.36	11.04	4.9	0.064	0.11	0.14
102	1000	M	19.84	12.58	6	0.058	0.1	0.13
122	1200	M	22.46	14.2	7.6	0.05	0.09	0.12
152	1500	M	27.22	16.48	9.44	0.046	0.08	0.1
182	1800	M			11.7			0.098
222	2200	M			13.4			0.095
272	2700	M			17.3			0.086
332	3300	M			22.1			0.078
392	3900	M			24.4			0.074
472	4700	M			30.1			0.072
562	5600	M			33.5			0.066
682	6800	M			44.4			0.062
822	8200	M			50.7			0.048
103	10000	M			65.6			0.044
123	12000	M			74.2			0.038
153	15000	M			92.3			0.034
183	18000	M			104.1			0.03
223	22000	M			154.5			0.028
273	27000	M			175.4			0.026

1. Test Frequency : 1.0uH~8R2 @ 100 kHz 0.25Vrms. 10uH~1800 @ 1KHz 0.25Vrms.
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