

Power Inductor

SMD / Unshielded Type



TP series

FEATURES

1. Surface mount inductor with high current rating.
2. Low resistance to keep power loss minimum.
3. The products contain no lead and also support lead-free soldering.



APPLICATIONS

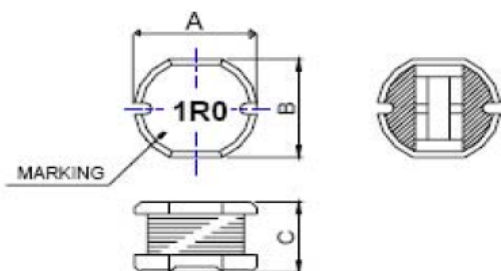
- Excellent for power line DC-DC conversion applications used in hard disk, notebook computers and other electronic equipment.

PARTNUMBER

TP	0705	—	220	M	F	V
A	B	C	D	E	F	

A: Series
 B: Dimension
 C: Inductance
 D: Inductance Tolerance K=±10%, M=±20%
 E: Lead Free Code
 F: ID Code

DIMENSIONS



Size	A(mm)	B(mm)	C(mm)
0302	3.5±0.3	3±0.3	2.1±0.3
0403	4.05±0.3	4±0.3	3.2±0.3
0502	5.8±0.3	5.2±0.3	2±0.3
0504	5.8±0.3	5.2±0.3	4.5±0.3
0703	7.8±0.3	7±0.3	3.5±0.3
0705	7.8±0.3	7±0.3	5±0.3
1004	10±0.3	9±0.3	4±0.3
1005	10±0.3	9±0.3	5.4±0.3

TP 0302

BW Part Number	Inductance (μ H) Tolerance	Test Frequency (Hz)	DCR (Ω) max.	Rated Current (A)
TP0302-1R0M	1.0 $\pm$ 20%	1V/7.96M	0.04	1.50
TP0302-1R4M	1.4 $\pm$ 20%	1V/7.96M	0.05	1.50
TP0302-1R8M	1.8 $\pm$ 20%	1V/7.96M	0.06	0.80
TP0302-2R2M	2.2 $\pm$ 20%	1V/7.96M	0.08	0.75
TP0302-2R7M	2.7 $\pm$ 20%	1V/7.96M	0.10	0.75
TP0302-3R3M	3.3 $\pm$ 20%	1V/7.96M	0.15	0.60
TP0302-3R9M	3.9 $\pm$ 20%	1V/7.96M	0.20	0.50
TP0302-4R7M	4.7 $\pm$ 20%	1V/7.96M	0.20	0.50
TP0302-5R6M	5.6 $\pm$ 20%	1V/7.96M	0.23	0.45
TP0302-6R8M	6.8 $\pm$ 20%	1V/7.96M	0.25	0.40
TP0302-8R2M	8.2 $\pm$ 20%	1V/7.96M	0.30	0.40
TP0302-100M	10 $\pm$ 20%	1V/2.52M	0.35	0.35
TP0302-120M	12 $\pm$ 20%	1V/2.52M	0.40	0.35
TP0302-150M	15 $\pm$ 20%	1V/2.52M	0.50	0.30
TP0302-180M	18 $\pm$ 20%	1V/2.52M	0.55	0.30
TP0302-220M	22 $\pm$ 20%	1V/2.52M	0.60	0.30
TP0302-270M	27 $\pm$ 20%	1V/2.52M	0.70	0.30
TP0302-330M	33 $\pm$ 20%	1V/2.52M	1.00	0.25
TP0302-390M	39 $\pm$ 20%	1V/2.52M	1.20	0.25
TP0302-470M	47 $\pm$ 20%	1V/2.52M	1.50	0.20
TP0302-560M	56 $\pm$ 20%	1V/2.52M	1.80	0.20
TP0302-680M	68 $\pm$ 20%	1V/2.52M	2.00	0.18
TP0302-820M	82 $\pm$ 20%	1V/2.52M	2.50	0.16
TP0302-101M	100 $\pm$ 20%	1V/1K	3.00	0.15
TP0302-121M	120 $\pm$ 20%	1V/1K	3.50	0.14
TP0302-151M	150 $\pm$ 20%	1V/1K	4.00	0.13
TP0302-181M	180 $\pm$ 20%	1V/1K	5.00	0.12
TP0302-221M	220 $\pm$ 20%	1V/1K	5.50	0.10
TP0302-271M	270 $\pm$ 20%	1V/1K	6.00	0.10
TP0302-331M	330 $\pm$ 20%	1V/1K	7.00	0.10
TP0302-391M	390 $\pm$ 20%	1V/1K	8.00	0.10
TP0302-471M	470 $\pm$ 20%	1V/1K	12.00	0.09

TP 0403

BW Part Number	Inductance (μ H) Tolerance	Test Frequency (Hz)	DCR (Ω) max.	Rated Current (A)
TP0403-1R0M	1.0 $\pm$ 20%	1V/7.96M	0.03	4.0
TP0403-1R4M	1.4 $\pm$ 20%	1V/7.96M	0.04	3.5
TP0403-1R8M	1.8 $\pm$ 20%	1V/7.96M	0.05	3.0
TP0403-2R2M	2.2 $\pm$ 20%	1V/7.96M	0.06	2.6
TP0403-2R7M	2.7 $\pm$ 20%	1V/7.96M	0.06	2.2
TP0403-3R3M	3.3 $\pm$ 20%	1V/7.96M	0.07	2.0
TP0403-3R9M	3.9 $\pm$ 20%	1V/7.96M	0.07	2.0
TP0403-4R7M	4.7 $\pm$ 20%	1V/7.96M	0.08	1.9
TP0403-5R6M	5.6 $\pm$ 20%	1V/7.96M	0.12	1.8
TP0403-6R8M	6.8 $\pm$ 20%	1V/7.96M	0.14	1.6
TP0403-8R2M	8.2 $\pm$ 20%	1V/7.96M	0.15	1.4
TP0403-100M	10 $\pm$ 20%	1V/2.52M	0.19	1.1
TP0403-120M	12 $\pm$ 20%	1V/2.52M	0.21	1.1
TP0403-150M	15 $\pm$ 20%	1V/2.52M	0.25	1.0
TP0403-180M	18 $\pm$ 20%	1V/2.52M	0.3	1.0
TP0403-220M,	22 $\pm$ 20%	1V/2.52M	0.35	0.8
TP0403-270M	27 $\pm$ 20%	1V/2.52M	0.45	0.75
TP0403-330M	33 $\pm$ 20%	1V/2.52M	0.6	0.70
TP0403-390M	39 $\pm$ 20%	1V/2.52M	0.7	0.65
TP0403-470M	47 $\pm$ 20%	1V/2.52M	0.8	0.60
TP0403-560M	56 $\pm$ 20%	1V/2.52M	0.85	0.55
TP0403-680M	68 $\pm$ 20%	1V/2.52M	1	0.50
TP0403-820M	82 $\pm$ 20%	1V/2.52M	1.1	0.46
TP0403-101M	100 $\pm$ 20%	1V/1K	1.2	0.22
TP0403-121M	120 $\pm$ 20%	1V/1K	1.6	0.2



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TP 0403

BW Part Number	Inductance (μH) Tolerance	Test Frequency (Hz)	DCR (Ω) max.	Ratted Current (A)
TP0403-151M	150±20%	1V/1K	2	0.20
TP0403-181M	180±20%	1V/1K	3	0.20
TP0403-221M	220±20%	1V/1K	3	0.20
TP0403-271M	270±20%	1V/1K	4	0.16
TP0403-331M	330±20%	1V/1K	4	0.14
TP0403-391M	390±20%	1V/1K	5	0.12
TP0403-471M	470±20%	1V/1K	6	0.12
TP0403-561M	560±20%	1V/1K	7	0.10

TP 0502

BW Part Number	Inductance (μH) Tolerance	Test Frequency (Hz)	DCR (Ω) max.	Ratted Current (A)
TP0502-1R0M	1.0±20%	1V/7.96M	0.03	1.50
TP0502-1R4M	1.4±20%	1V/7.96M	0.04	1.50
TP0502-1R8M	1.8±20%	1V/7.96M	0.05	1.50
TP0502-2R2M	2.2±20%	1V/7.96M	0.06	1.50
TP0502-2R7M	2.7±20%	1V/7.96M	0.07	1.50
TP0502-3R3M	3.3±20%	1V/7.96M	0.08	1.50
TP0502-3R9M	3.9±20%	1V/7.96M	0.09	1.00
TP0502-4R7M	4.7±20%	1V/7.96M	0.10	1.00
TP0502-5R6M	5.6±20%	1V/7.96M	0.11	1.00
TP0502-6R8M	6.8±20%	1V/7.96M	0.14	0.70
TP0502-8R2M	8.2±20%	1V/7.96M	0.15	0.65
TP0502-100M	10±20%	1V/2.52M	0.3	0.60
TP0502-120M	12±20%	1V/2.52M	0.35	0.60
TP0502-150M	15±20%	1V/2.52M	0.40	0.55
TP0502-180M	18±20%	1V/2.52M	0.45	0.50
TP0502-220M	22±20%	1V/2.52M	0.5	0.5
TP0502-270M	27±20%	1V/2.52M	0.55	0.45
TP0502-330M	33±20%	1V/2.52M	0.6	0.40
TP0502-390M	39±20%	1V/2.52M	0.7	0.35
TP0502-470M	47±20%	1V/2.52M	0.8	0.30
TP0502-560M	56±20%	1V/2.52M	0.9	0.25
TP0502-680M	68±20%	1V/2.52M	1.2	0.25
TP0502-820M	82±20%	1V/2.52M	1.5	0.22
TP0502-101M	100±20%	1V/2.52M	2.0	0.21
TP0502-121M	120±20%	1V/2.52M	3	0.2
TP0502-151M	150±20%	1V/2.52M	4	0.18
TP0502-181M	180±20%	1V/2.52M	4	0.15
TP0502-221M	220±20%	1V/2.52M	4.5	0.15
TP0502-271M	270±20%	1V/2.52M	5	0.15
TP0502-331M	330±20%	1V/2.52M	6	0.14
TP0502-391M	390±20%	1V/2.52M	6.5	0.14
TP0502-471M	470±20%	1V/2.52M	7	0.12
TP0502-561M	560±20%	1V/2.52M	8	0.12

TP 0504

BW Part Number	Inductance (μ H) Tolerance	Test Frequency (Hz)	DCR (Ω) max.	Rated Current (A)
TP0504-1R0M	1.0 $\pm$ 20%	1V/7.96M	0.018	3.50
TP0504-1R4M	1.4 $\pm$ 20%	1V/7.96M	0.02	3.50
TP0504-1R8M	1.8 $\pm$ 20%	1V/7.96M	0.025	3.00
TP0504-2R2M	2.2 $\pm$ 20%	1V/7.96M	0.03	2.80
TP0504-2R7M	2.7 $\pm$ 20%	1V/7.96M	0.035	2.60
TP0504-3R3M	3.3 $\pm$ 20%	1V/7.96M	0.04	2.50
TP0504-3R9M	3.9 $\pm$ 20%	1V/7.96M	0.05	2.30
TP0504-4R7M	4.7 $\pm$ 20%	1V/7.96M	0.06	2.60
TP0504-5R6M	5.6 $\pm$ 20%	1V/7.96M	0.07	2.40
TP0504-6R8M	6.8 $\pm$ 20%	1V/7.96M	0.08	2.20
TP0504-8R2M	8.2 $\pm$ 20%	1V/7.96M	0.08	2.00
TP0504-100M	10 $\pm$ 20%	1V/2.52M	0.09	1.80
TP0504-120M	12 $\pm$ 20%	1V/2.52M	0.1	1.60
TP0504-150M	15 $\pm$ 20%	1V/2.52M	0.12	1.50
TP0504-180M	18 $\pm$ 20%	1V/2.52M	0.15	1.40
TP0504-220M	22 $\pm$ 20%	1V/2.52M	0.18	1.3
TP0504-270M	27 $\pm$ 20%	1V/2.52M	0.22	1.20
TP0504-330M	33 $\pm$ 20%	1V/2.52M	0.26	1.00
TP0504-390M	39 $\pm$ 20%	1V/2.52M	0.30	0.90
TP0504-470M	47 $\pm$ 20%	1V/2.52M	0.35	0.85
TP0504-560M	56 $\pm$ 20%	1V/2.52M	0.40	0.80
TP0504-680M	68 $\pm$ 20%	1V/2.52M	0.45	0.70
TP0504-820M	82 $\pm$ 20%	1V/2.52M	0.50	0.70
TP0504-101M	100 $\pm$ 20%	1V/2.52M	0.70	0.60
TP0504-121M	120 $\pm$ 20%	1V/2.52M	0.75	0.6
TP0504-151M	150 $\pm$ 20%	1V/2.52M	0.90	0.55
TP0504-181M	180 $\pm$ 20%	1V/2.52M	1.1	0.50
TP0504-221M	220 $\pm$ 20%	1V/2.52M	1.2	0.40
TP0504-271M	270 $\pm$ 20%	1V/2.52M	1.5	0.25
TP0504-331M	330 $\pm$ 20%	1V/2.52M	3	0.22
TP0504-391M	390 $\pm$ 20%	1V/2.52M	3.5	0.20
TP0504-471M	470 $\pm$ 20%	1V/2.52M	4	0.19
TP0504-561M	560 $\pm$ 20%	1V/2.52M	4	0.18
TP0504-681M	680 $\pm$ 20%	1V/2.52M	4.5	0.15

TP 0703

BW Part Number	Inductance (μ H) Tolerance	Test Frequency (Hz)	DCR (Ω) max.	Rated Current (A)
TP0703-100M	10 $\pm$ 20%	1V/2.52M	0.080	1.44
TP0703-120M	12 $\pm$ 20%	1V/2.52M	0.090	1.39
TP0703-150M	15 $\pm$ 20%	1V/2.52M	0.104	1.24
TP0703-180M	18 $\pm$ 20%	1V/2.52M	0.111	1.12
TP0703-220M	22 $\pm$ 20%	1V/2.52M	0.129	1.07
TP0703-270M	27 $\pm$ 20%	1V/2.52M	0.153	0.97
TP0703-330M	33 $\pm$ 20%	1V/2.52M	0.170	0.85
TP0703-390M	39 $\pm$ 20%	1V/2.52M	0.217	0.74
TP0703-470M	47 $\pm$ 20%	1V/2.52M	0.252	0.68
TP0703-560K	56 $\pm$ 10%	1V/7.96M	0.282	0.64
TP0703-680K	68 $\pm$ 10%	1V/7.96M	0.332	0.59
TP0703-820K	82 $\pm$ 10%	1V/2.52M	0.406	0.54
TP0703-101K	100 $\pm$ 10%	1V/1K	0.481	0.51
TP0703-121K	120 $\pm$ 10%	1V/1K	0.536	0.49
TP0703-151K	150 $\pm$ 10%	1V/1K	0.755	0.40
TP0703-181K	180 $\pm$ 10%	1V/1K	1.022	0.36
TP0703-221K	220 $\pm$ 10%	1V/1K	1.200	0.31
TP0703-271K	270 $\pm$ 10%	1V/1K	1.306	0.29
TP0703-331K	330 $\pm$ 10%	1V/1K	1.495	0.28



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TP 0705

BW Part Number	Inductance (μ H) Tolerance	Test Frequency (Hz)	DCR (Ω) max.	Rated Current (A)
TP0705-100M	10 $\pm$ 20%	1V/2.52M	0.07	2.30
TP0705-120M	12 $\pm$ 20%	1V/2.52M	0.08	2.00
TP0705-150M	15 $\pm$ 20%	1V/2.52M	0.09	1.80
TP0705-180M	18 $\pm$ 20%	1V/2.52M	0.10	1.60
TP0705-220M	22 $\pm$ 20%	1V/2.52M	0.11	1.50
TP0705-270M	27 $\pm$ 20%	1V/2.52M	0.12	1.30
TP0705-330M	33 $\pm$ 20%	1V/2.52M	0.13	1.20
TP0705-390M	39 $\pm$ 20%	1V/2.52M	0.16	1.10
TP0705-470K	47 $\pm$ 10%	1V/2.52M	0.18	1.10
TP0705-560K	56 $\pm$ 10%	1V/2.52M	0.24	0.94
TP0705-680K	68 $\pm$ 10%	1V/2.52M	0.28	0.85
TP0705-820K	82 $\pm$ 10%	1V/2.52M	0.37	0.78
TP0705-101K	100 $\pm$ 10%	1V/1K	0.43	0.72
TP0705-121K	120 $\pm$ 10%	1V/1K	0.47	0.66
TP0705-151K	150 $\pm$ 10%	1V/1K	0.64	0.58
TP0705-181K	180 $\pm$ 10%	1V/1K	0.71	0.51
TP0705-221K	220 $\pm$ 10%	1V/1K	0.96	0.49
TP0705-271K	270 $\pm$ 10%	1V/1K	1.11	0.42
TP0705-331K	330 $\pm$ 10%	1V/1K	1.26	0.40
TP0705-391K	390 $\pm$ 10%	1V/1K	1.77	0.36
TP0705-471K	470 $\pm$ 10%	1V/1K	1.96	0.34

TP 1004

BW Part Number	Inductance (μ H) Tolerance	Test Frequency (Hz)	DCR (Ω) max.	Rated Current (A)
TP1004-100M	10 $\pm$ 20%	1V/2.52M	0.053	2.38
TP1004-120M	12 $\pm$ 20%	1V/2.52M	0.061	2.13
TP1004-150M	15 $\pm$ 20%	1V/2.52M	0.070	1.87
TP1004-180M	18 $\pm$ 20%	1V/2.52M	0.081	1.73
TP1004-220M	22 $\pm$ 20%	1V/2.52M	0.088	1.60
TP1004-270M	27 $\pm$ 20%	1V/2.52M	0.100	1.44
TP1004-330M	33 $\pm$ 20%	1V/2.52M	0.120	1.26
TP1004-390M	39 $\pm$ 20%	1V/2.52M	0.151	1.20
TP1004-470M	47 $\pm$ 20%	1V/2.52M	0.170	1.10
TP1004-560K	56 $\pm$ 10%	1V/2.52M	0.199	1.01
TP1004-680K	68 $\pm$ 10%	1V/2.52M	0.223	0.91
TP1004-820K	82 $\pm$ 10%	1V/2.52M	0.252	0.85
TP1004-101K	100 $\pm$ 10%	1V/1K	0.344	0.74
TP1004-121K	120 $\pm$ 10%	1V/1K	0.396	0.69
TP1004-151K	150 $\pm$ 10%	1V/1K	0.544	0.61
TP1004-181K	180 $\pm$ 10%	1V/1K	0.621	0.56
TP1004-221K	220 $\pm$ 10%	1V/1K	0.721	0.53
TP1004-271K	270 $\pm$ 10%	1V/1K	0.949	0.45
TP1004-331K	330 $\pm$ 10%	1V/1K	1.100	0.42
TP1004-391K	390 $\pm$ 10%	1V/1K	1.245	0.38
TP1004-471K	470 $\pm$ 10%	1V/1K	1.526	0.35
TP1004-561K	560 $\pm$ 10%	1V/1K	1.904	0.32

TP 1005

BW Part Number	Inductance (μ H) Tolerance	Test Frequency (Hz)	DCR (Ω) max.	Rated Current (A)
TP1005-100M	10 $\pm$ 20%	1V/2.52M	0.06	2.60
TP1005-120M	12 $\pm$ 20%	1V/2.52M	0.07	2.45
TP1005-150M	15 $\pm$ 20%	1V/2.52M	0.08	2.27
TP1005-180M	18 $\pm$ 20%	1V/2.52M	0.09	2.15
TP1005-220M	22 $\pm$ 20%	1V/2.52M	0.10	1.95
TP1005-270M	27 $\pm$ 20%	1V/2.52M	0.11	1.76
TP1005-330M	33 $\pm$ 20%	1V/2.52M	0.12	1.50
TP1005-390M	39 $\pm$ 20%	1V/2.52M	0.14	1.37
TP1005-470M	47 $\pm$ 20%	1V/2.52M	0.17	1.28
TP1005-560M	56 $\pm$ 10%	1V/2.52M	0.19	1.17
TP1005-680M	68 $\pm$ 10%	1V/2.52M	0.22	1.11
TP1005-820M	82 $\pm$ 10%	1V/2.52M	0.25	1.00
TP1005-101M	100 $\pm$ 10%	1V/1K	0.35	0.97
TP1005-121M	120 $\pm$ 10%	1V/1K	0.40	0.89
TP1005-151M	150 $\pm$ 10%	1V/1K	0.47	0.78
TP1005-181M	180 $\pm$ 10%	1V/1K	0.63	0.72
TP1005-221M	220 $\pm$ 10%	1V/1K	0.73	0.66
TP1005-271M	270 $\pm$ 10%	1V/1K	0.97	0.57
TP1005-331M	330 $\pm$ 10%	1V/1K	1.15	0.52
TP1005-391M	390 $\pm$ 10%	1V/1K	1.30	0.48
TP1005-471M	470 $\pm$ 10%	1V/1K	1.48	0.42
TP1005-561M	560 $\pm$ 10%	1V/1K	1.90	0.33
TP1005-681M	680 $\pm$ 10%	1V/1K	2.25	0.28
TP1005-821M	820 $\pm$ 10%	1V/1K	2.55	0.24