

PIN Series Type

SMD Inductor for Power Line (Unshielded)

FEATURES

- Various high power SMD inductors are superior to high saturation.
- These products are low profile with low DC resistance.
- Provided in embossed carrier tape packaging for use with automatic mounting machines.



APPLICATIONS

- Excellent for power line DC-DC conversion application used in portable telephones, personal computers, hard disk drives, and other electronic equipment.

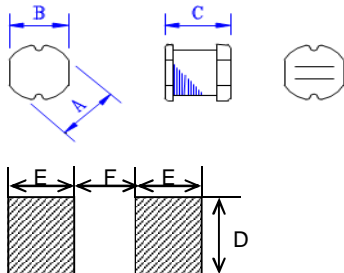
PRODUCT IDENTIFICATION

PIN 32 - 1R0 M - T

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

(1) Product name (2) Dimension (3) Inductance 1R0 : 1.0uH ; 100 : 10uH (4) Tolerance M : ±20% (5) Taping style T : Taping ; None : Bulk

DIMENSIONS and RECOMMENDED PATTERN(Unit:mm)



Dimension	A	B	C	D	E	F
PIN32	3.5 ± 0.3	3.0 ± 0.3	2.1 ± 0.3	3.5	1.7	0.6
PIN42	4.5 ± 0.3	4.0 ± 0.3	2.1 ± 0.3	4.5	2.1	0.8
PIN43	4.5 ± 0.3	4.0 ± 0.3	3.2 ± 0.3	4.5	2.1	0.8
PIN52	5.8 ± 0.3	5.2 ± 0.3	2.5 ± 0.3	5.5	2.25	1.5
PIN53	5.8 ± 0.3	5.2 ± 0.3	3 ± 0.3	5.5	2.25	1.5
PIN54	5.8 ± 0.3	5.2 ± 0.3	4.5 ± 0.3	5.8	2.65	1
PIN73	7.8 ± 0.3	7.0 ± 0.3	3.5 ± 0.3	7.8	3.3	1.7
PIN75	7.8 ± 0.3	7.0 ± 0.3	5.0 ± 0.3	7.8	3.3	1.7
PIN104	10 ± 0.3	9.0 ± 0.3	4 ± 0.3	10	4.2	2.1
PIN105	10 ± 0.3	9.0 ± 0.4	5.4 ± 0.3	10	4.2	2.1

ELECTRICAL CHARACTERISTICS

Stamp	Inductance (uH)	D.C.R (Ω) Max. / Rated D.C. Current(A) Max.									
		PIN32	PIN42	PIN43	PIN52	PIN53	PIN54	PIN73	PIN75	PIN104	PIN105
1R0	1		0.043 / 2.7	0.033 / 3.8		0.03 / 4.5	0.015 / 5.9				
1R2	1.2				0.05 / 4.2	0.03 / 4.2					
1R4	1.4		0.048 / 2.55	0.038 / 3.3							
1R5	1.5				0.06 / 4	0.03 / 4.1	0.025 / 4.7				
1R8	1.8		0.052 / 2.2	0.042 / 2.91	0.065 / 3.7	0.03 / 3.7					
2R2	2.2		0.058 / 2	0.047 / 2.6	0.07 / 3.5	0.03 / 3.5	0.035 / 3.8				
2R7	2.7		0.065 / 1.8	0.052 / 2.43	0.08 / 3.2	0.04 / 3.2					
3R3	3.3		0.08 / 1.6	0.058 / 2.15	0.1 / 2.7	0.05 / 2.8	0.045 / 3.3				
3R9	3.9		0.089 / 1.45	0.076 / 1.98	0.12 / 2.4	0.06 / 2.6					
4R7	4.7		0.109 / 1.35	0.094 / 1.7	0.14 / 2	0.07 / 2.5	0.06 / 2.8				
5R6	5.6		0.137 / 1.22	0.101 / 1.6	0.15 / 1.8	0.08 / 2.4	0.07 / 2.4				
6R8	6.8		0.159 / 1.1	0.117 / 1.41	0.16 / 1.5	0.09 / 2.2	0.08 / 2.1				
8R2	8.2		0.197 / 1.05	0.132 / 1.26	0.17 / 1.4	0.1 / 2	0.09 / 2				
100	10	0.23 / 0.76	0.216 / 0.95	0.182 / 1.15	0.2 / 1.3	0.12 / 1.8	0.1 / 1.4	0.0803 / 1.44	0.07 / 2.3	0.05 / 2.38	0.06 / 2.6
120	12	0.27 / 0.685	0.256 / 0.85	0.21 / 1.05	0.23 / 1.1	0.13 / 1.75	0.12 / 1.4	0.0897 / 1.39	0.08 / 2	0.06 / 2.13	0.07 / 2.45
150	15	0.31 / 0.635	0.32 / 0.78	0.235 / 0.92	0.25 / 1.05	0.15 / 1.7	0.14 / 1.3	0.1 / 1.24	0.09 / 1.8	0.07 / 1.87	0.08 / 2.27
180	18	0.41 / 0.525	0.395 / 0.73	0.338 / 0.84	0.3 / 1	0.18 / 1.6	0.15 / 1.23	0.111 / 1.12	0.1 / 1.6	0.08 / 1.73	0.09 / 2.15
220	22	0.47 / 0.5	0.459 / 0.67	0.378 / 0.76	0.35 / 0.9	0.22 / 1.5	0.18 / 1.11	0.13 / 1.07	0.11 / 1.5	0.09 / 1.6	0.1 / 1.95
270	27	0.66 / 0.405	0.627 / 0.6	0.522 / 0.71	0.4 / 0.85	0.24 / 1.4	0.2 / 0.97	0.15 / 0.94	0.12 / 1.3	0.1 / 1.44	0.11 / 1.76
330	33	0.76 / 0.38	0.65 / 0.55	0.54 / 0.64	0.5 / 0.75	0.3 / 1.1	0.23 / 0.88	0.17 / 0.85	0.13 / 1.2	0.12 / 1.26	0.12 / 1.5
390	39	0.85 / 0.355	0.74 / 0.51	0.587 / 0.59	0.55 / 0.7	0.4 / 1	0.32 / 0.8	0.22 / 0.74	0.16 / 1.1	0.15 / 1.2	0.14 / 1.37
470	47	0.97 / 0.33	0.85 / 0.48	0.844 / 0.54	0.65 / 0.6	0.43 / 0.9	0.37 / 0.72	0.25 / 0.68	0.18 / 1.1	0.17 / 1.1	0.17 / 1.28
560	56	1.25 / 0.29	1.109 / 0.44	0.937 / 0.5	0.75 / 0.55	0.5 / 0.85	0.42 / 0.68	0.28 / 0.64	0.24 / 0.94	0.2 / 1.01	0.19 / 1.17
680	68	1.45 / 0.275	1.29 / 0.39	1.117 / 0.48	0.95 / 0.5	0.6 / 0.8	0.46 / 0.61	0.33 / 0.59	0.28 / 0.85	0.22 / 0.91	0.22 / 1.11
820	82	1.85 / 0.235	1.705 / 0.36	1.2 / 0.46	1.2 / 0.45	0.8 / 0.65	0.6 / 0.58	0.41 / 0.54	0.37 / 0.78	0.25 / 0.85	0.25 / 1
101	100	2.2 / 0.22		1.52 / 0.44	1.4 / 0.4	0.9 / 0.6	0.7 / 0.52	0.48 / 0.51	0.43 / 0.72	0.34 / 0.74	0.35 / 0.97
121	120	2.9 / 0.185		1.8 / 0.43	1.75 / 0.35	1 / 0.58	0.93 / 0.48	0.54 / 0.49	0.47 / 0.66	0.4 / 0.69	0.4 / 0.89
151	150	3.4 / 0.17		1.95 / 0.3	2 / 0.25	1.3 / 0.43	1.1 / 0.4	0.75 / 0.4	0.64 / 0.58	0.54 / 0.61	0.47 / 0.78
181	180	3.9 / 0.165		3.2 / 0.38	2.6 / 0.22	1.5 / 0.41	1.38 / 0.38	1.02 / 0.36	0.71 / 0.51	0.62 / 0.56	0.63 / 0.72
221	220	4.5 / 0.155		3 / 0.25	3 / 0.2	2 / 0.38	1.57 / 0.35	1.2 / 0.31	0.96 / 0.49	0.72 / 0.53	0.73 / 0.66
271	270	6 / 0.135			3.7 / 0.18	2.5 / 0.35		1.31 / 0.29	1.11 / 0.42	0.95 / 0.45	0.97 / 0.57
331	330	7 / 0.125		5.3 / 0.28	4.3 / 0.17	3.2 / 0.28	1.7 / 0.28	1.5 / 0.28	1.26 / 0.4	1.1 / 0.42	1.15 / 0.52
391	390	7.8 / 0.115		5.9 / 0.24	6 / 0.16	3.5 / 0.26			1.77 / 0.36	1.24 / 0.38	1.3 / 0.48
471	470			6.8 / 0.21	6.7 / 0.15	4.2 / 0.2	2.3 / 0.23		1.96 / 0.34	1.53 / 0.35	1.48 / 0.42
561	560			8 / 0.2		4.5 / 0.19	2.5 / 0.2			1.9 / 0.32	1.9 / 0.33
681	680			8.4 / 0.19		6 / 0.18	3 / 0.19				2.25 / 0.28
821	820					6.5 / 0.15	4.5 / 0.16				2.55 / 0.24
102	1000					8 / 0.13	4.8 / 0.14				

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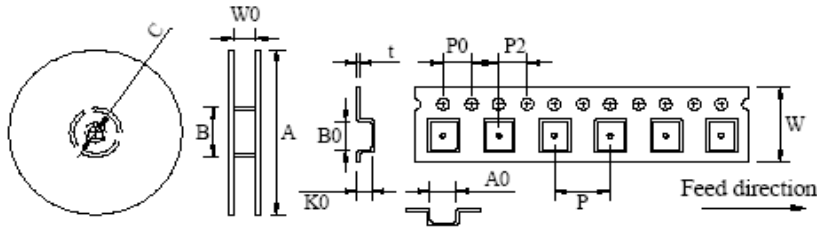
Test Instrument:

- INDUCTANCE (1KHz) : HP 4284A LCR METER, or equivalent
- INDUCTANCE (up 1MHz) : HP E4991A LCR METER, or equivalent
- RDC : DIGITAL MILLI OHM METER 16502 , or equivalent
- Rated D.C. Current : HP4284A+42841 test fixture
- PIN32~ PIN105 : $\pm 20\%$ (M)

※ This indicates the value of current when the inductance is 10% lower than its initial value at D.C, superposition or D.C current when at $rt = 40^\circ$ whichever is lower.

※ Operating temperature: -40°C to 85°C

Tape and Reel specifications:



TYPE	Tape Dimensions							Reel Dimensions				Quantity PCS / REEL	
	A0	B0	K0	P	P0	P2	W	t	A	B	C		W0
PIN32	3.3	3.6	2.25	8	4	2	12	0.3	330	100	13	12.5	3000
PIN42	4.3	4.7	2.15	8	4	2	12	0.35	330	100	13	12.5	3000
PIN43	4.2	4.6	3.6	8	4	2	12	0.3	330	100	13	12.5	2000
PIN52	5.5	6	2.7	8	4	2	12	0.3	330	100	13	12.5	2500
PIN53	5.6	6.2	3.3	8	4	2	12	0.4	330	100	13	12.5	1500
PIN54	5.6	6.1	4.80	8	4	2	12	0.4	330	100	13	12.5	1500
PIN73	7.2	8.10	3.90	12	4	2	16	0.35	330	100	13	16.5	1000
PIN75	7.2	8.20	5.20	12	4	2	16	0.4	330	100	13	16.5	1000
PIN104	9.5	10.30	4.40	12	4	2	24	0.35	330	100	13	24.5	1000
PIN105	9.5	10.30	5.80	12	4	2	24	0.35	330	100	13	24.5	1000