

LOW PROFILE POWER INDUCTOR TPI SERIES

INTRODUCTION

The TPI series are characterized by low profile, and high current power inductor used in cellular phone, HDD, DVC, DSC, PDA, LCD display, and other electronic equipment. Several dimensions are available.

FEATURES

- * Small and low profile inductor.
- * High current performance.
- * High magnetic shield construction should actualize high resolution.
- * Available for automatic mounting in tape and real package.

PART NUMBER

TPI 3015 C T 1R0 N -□□

1 Product Name **1** **2** **3** **4** **5** **6** Internal Code

2 Shape and Dimension

Size	A (inch) mm	B (inch) mm	C (inch) mm
TPI2410	(0.095 ± 0.004) 2.40 ± 0.10	(0.095 ± 0.004) 2.40 ± 0.10	(0.039) 1.00
TPI2510	(0.099 ± 0.004) 2.50 ± 0.10	(0.079 ± 0.004) 2.00 ± 0.10	(0.039) 1.00
TPI2512	(0.099 ± 0.004) 2.50 ± 0.10	(0.079 ± 0.004) 2.00 ± 0.10	(0.047) 1.20
TPI2515	(0.099 ± 0.004) 2.50 ± 0.10	(0.079 ± 0.004) 2.00 ± 0.10	(0.059) 1.50
TPI3010	(0.118 ± 0.004) 3.00 ± 0.10	(0.118 ± 0.004) 3.00 ± 0.10	(0.039) 1.00
TPI3012	(0.118 ± 0.004) 3.00 ± 0.10	(0.118 ± 0.004) 3.00 ± 0.10	(0.047) 1.20
TPI3015	(0.118 ± 0.004) 3.00 ± 0.10	(0.118 ± 0.004) 3.00 ± 0.10	(0.059) 1.50
TPI4018	(0.157 ± 0.008) 4.00 ± 0.20	(0.157 ± 0.008) 4.00 ± 0.20	(0.071) 1.80
TPI4025	(0.157 ± 0.008) 4.00 ± 0.20	(0.157 ± 0.008) 4.00 ± 0.20	(0.098) 2.50
TPI5020	(0.197 ± 0.008) 5.00 ± 0.20	(0.197 ± 0.008) 5.00 ± 0.20	(0.079) 2.00
TPI5040	(0.197 ± 0.008) 5.00 ± 0.20	(0.197 ± 0.008) 5.00 ± 0.20	(0.157) 4.00
TPI6020	(0.236 ± 0.008) 6.00 ± 0.20	(0.236 ± 0.008) 6.00 ± 0.20	(0.079) 2.00
TPI6028	(0.236 ± 0.008) 6.00 ± 0.20	(0.236 ± 0.008) 6.00 ± 0.20	(0.110) 2.80
TPI6045	(0.236 ± 0.008) 6.00 ± 0.20	(0.236 ± 0.008) 6.00 ± 0.20	(0.177) 4.50

3 Coating Type

4 Taping

5 Inductance

1R0 = 1.0uH

100 = 10uH

6 Tolerance

M = ± 20%

N = ± 30%

TPI 5020 SERIES

Part No.	Inductance (uH)	Test Freq.	Tolerance	DCResistance (mΩ)		Rated DC current (A)	
				Max.	Typ.	Idc1	Idc2
TPI5020CT 1R0 □-□□	1.0	100 KHz, 1V	N	25	21	4.00	3.60
TPI5020CT 1R5 □-□□	1.5	100 KHz, 1V	N	31	26	3.35	3.20
TPI5020CT 2R2 □-□□	2.2	100 KHz, 1V	N	42	35	2.90	2.90
TPI5020CT 3R3 □-□□	3.3	100 KHz, 1V	M	58	48	2.40	2.40
TPI5020CT 4R7 □-□□	4.7	100 KHz, 1V	M	72	60	2.00	2.00
TPI5020CT 5R6 □-□□	5.6	100 KHz, 1V	M	106	88	1.80	1.80
TPI5020CT 6R8 □-□□	6.8	100 KHz, 1V	M	108	90	1.60	1.65
TPI5020CT 100 □-□□	10	100 KHz, 1V	M	144	120	1.30	1.45
TPI5020CT 150 □-□□	15	100 KHz, 1V	M	198	165	1.10	1.20
TPI5020CT 220 □-□□	22	100 KHz, 1V	M	312	260	0.90	1.00
TPI5020CT 330 □-□□	33	100 KHz, 1V	M	516	430	0.80	0.90

TPI 5040 SERIES

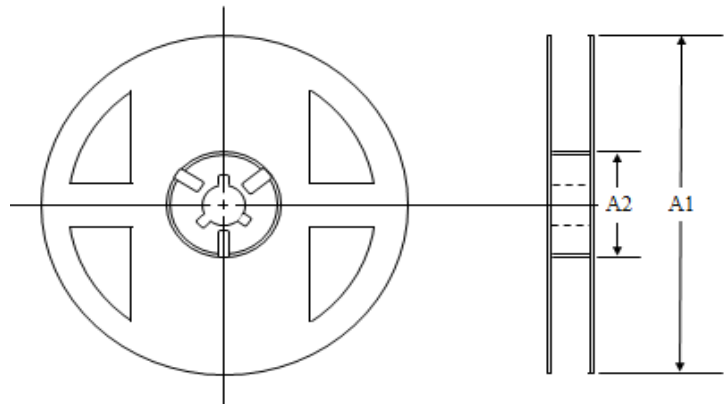
Part No.	Inductance (uH)	Test Freq.	Tolerance	DCResistance (mΩ)		Rated DC current (A)	
				Max.	Typ.	Idc1	Idc2
TPI5040CT 1R5 □-□□	1.5	100 KHz, 1V	N	18	15	6.00	3.60
TPI5040CT 2R2 □-□□	2.2	100 KHz, 1V	N	20	17	4.60	3.50
TPI5040CT 3R3 □-□□	3.3	100 KHz, 1V	M	26	22	3.80	3.30
TPI5040CT 4R7 □-□□	4.7	100 KHz, 1V	M	35	29	3.30	3.10
TPI5040CT 6R8 □-□□	6.8	100 KHz, 1V	M	59	49	2.60	2.30
TPI5040CT 8R2 □-□□	8.2	100 KHz, 1V	M	65	54	2.40	2.20
TPI5040CT 100 □-□□	10	100 KHz, 1V	M	67	56	2.30	2.10
TPI5040CT 150 □-□□	15	100 KHz, 1V	M	96	80	2.00	1.80
TPI5040CT 220 □-□□	22	100 KHz, 1V	M	151	126	1.60	1.40
TPI5040CT 270 □-□□	27	100 KHz, 1V	M	198	165	1.40	1.30
TPI5040CT 330 □-□□	33	100 KHz, 1V	M	216	180	1.30	1.20
TPI5040CT 470 □-□□	47	100 KHz, 1V	M	324	270	1.10	0.90

1. Inductance is measured in HP-4285A Precision LCR Meter.
2. RDC is measured in HP 4338B mill ohm meter.(or equivalent).
3. Tolerance : M =20% , N=30% (Table shows stock tolerances in □).
4. Idc1 : Based on inductance change ($\Delta L/L_0 : \leq -30\%$)
5. Idc2 : Based on temperature rise ($\Delta T : 40^\circ\text{C TYP.}$)

PACKAGING INFORMATION

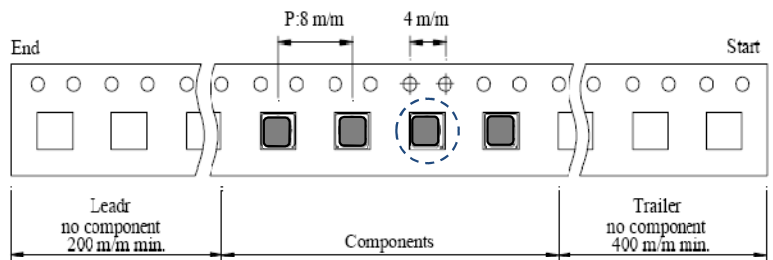
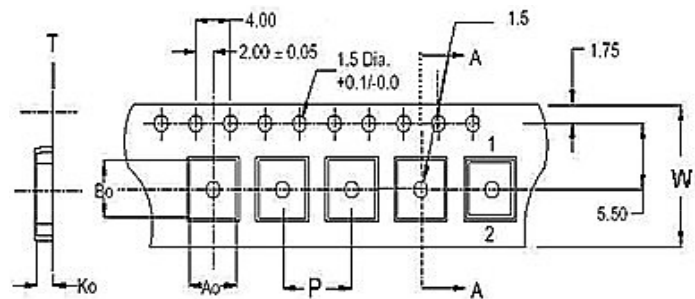
Packing Quantity

TYPE	PCS / REEL	REEL"	A1	A2
TPI2410	2000	7"	178	60
TPI2510	2000	7"	178	60
TPI2512	2000	7"	178	60
TPI2515	2000	7"	178	60
TPI3010	2000	7"	178	60
TPI3012	2000	7"	178	60
TPI3015	2000	7"	178	60
TPI4018	3000	13"	330	99
TPI4025	3000	13"	330	99
TPI5020	2000	13"	330	99
TPI5040	1000	13"	330	99
TPI6020	2000	13"	330	99
TPI6028	1000	13"	330	99
TPI6045	1000	13"	330	99



Dimension (unit:m/m)

TYPE	Chip Cavity		Insert Pitch	Tape Thickness		Tape Width
	Ao	Bo		Ko	T	
TPI2410	2.65	2.65	4	1.25	0.25	8
TPI2510	2.23	2.73	4	1.30	0.25	8
TPI2512	2.23	2.73	4	1.50	0.25	8
TPI2515	2.23	2.73	4	1.80	0.25	8
TPI3010	3.25	3.25	4	1.25	0.25	8
TPI3012	3.25	3.25	4	1.45	0.25	8
TPI3015	3.25	3.25	4	1.75	0.25	8
TPI4018	4.30	4.30	8	2.05	0.30	12
TPI4025	4.30	4.30	8	2.75	0.30	12
TPI5020	5.40	5.40	8	2.25	0.35	12
TPI5040	5.40	5.40	8	4.25	0.35	12
TPI6020	6.40	6.40	8	2.25	0.35	12
TPI6028	6.40	6.40	8	3.05	0.35	12
TPI6045	6.40	6.40	12	4.75	0.35	16



Recommended Footprint (unit:m/m)

TYPE	A	B	C
TPI2410	2.15	2.00	0.70
TPI2510	2.50	2.00	0.80
TPI2512	2.50	2.00	0.80
TPI2515	2.50	2.00	0.80
TPI3010	3.00	2.70	0.80
TPI3012	3.00	2.70	0.80
TPI3015	3.00	2.70	0.80
TPI4018	4.55	3.60	1.50
TPI4025	4.55	3.60	1.50
TPI5020	5.10	4.00	1.50
TPI5040	5.10	4.00	1.50
TPI6020	6.30	5.70	1.60
TPI6028	6.30	5.70	1.60
TPI6045	6.30	5.70	1.60

