



Semi-Shielded SMD Power Inductor
TPI50xx 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 reel package.

PART NUMBER

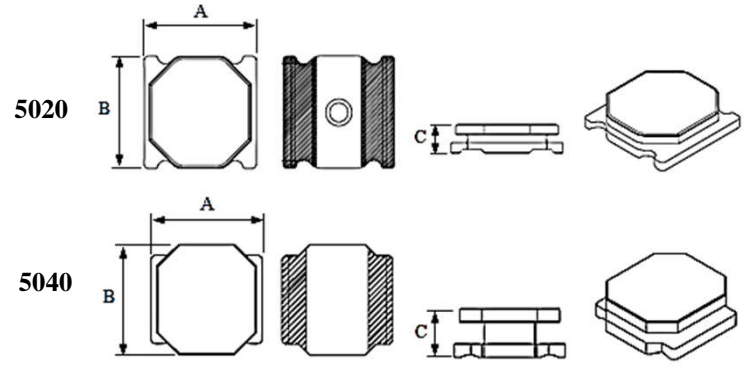
TPI 5020 C T 1R0 N - □□

1 2 3 4 5 6

 taping

1 Product Type

2 Shape & Dimension



Size	A	B	C
TPI5020	(0.197 ± 0.008) 5.00 ± 0.20	(0.197 ± 0.008) 5.00 ± 0.20	(0.079 max.) 2.00 max.
TPI5040	(0.197 ± 0.008) 5.00 ± 0.20	(0.197 ± 0.008) 5.00 ± 0.20	(0.157 max.) 4.00 max.

(inch)
mm

3 Coating Type

C : Coating

4 Inductance

1R0 = 1.0uH 100 = 10uH

5 Tolerance

M = ±20% N = ±30%

6 Internal Code

TPI50xx Series

TPI5020 Series

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

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

TPI50xx Series

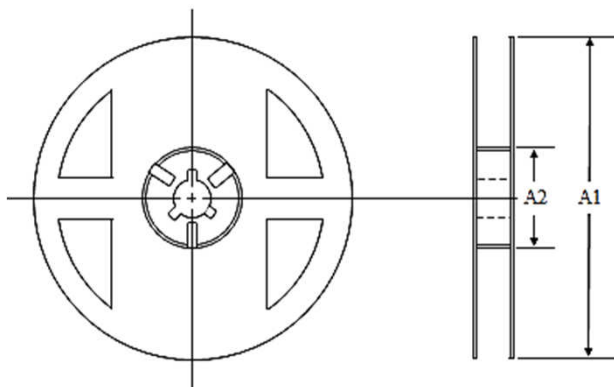
TPI5040 Series

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

1. Inductance is measured in HP-4285A Precision LCR Meter.
2. RDC is measured in HP 4338B milliohm meter or equivalent.
3. Tolerance : M = ±20%, N = ±30% (Table shows stock tolerance in □).
4. Idc1 : Based on inductance change ($\Delta L/L_0$: ≤-30%).
5. Idc2 : Based on temperature rise (ΔT : 40°C typ.).

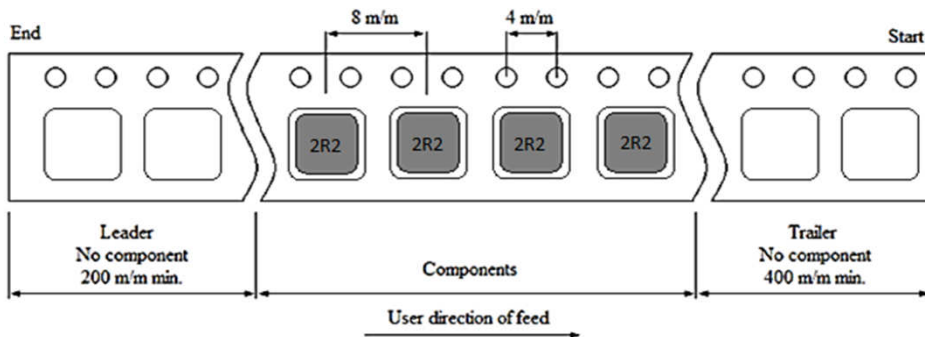
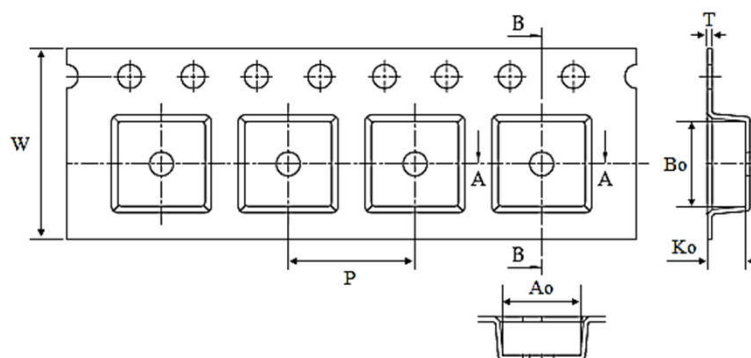
(unit : m/m)

Type	Pcs/Reel	Reel"	A1	A2
5020	2,000	13"	330	99
5040	1,000	13"	330	99



(unit : m/m)

Type		5020	5040
Chip Cavity	Ao	5.50	5.35
	Bo	5.35	5.80
Insert Pitch	P	8.00	8.00
Tape Thickness	Ko	2.40	4.70
	T	0.30	0.30
Tape Width	W	12.00	12.00



Recommended Footprint (unit : m/m)

Type	A	B	C
5020	5.10	4.00	1.50
5040	5.10	4.00	1.50

Recommended Pattern

