



Semi-Shielded SMD Power Inductor
TPI3Oxx 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

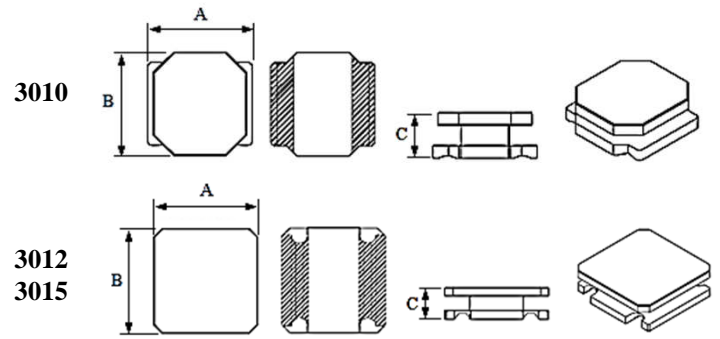
TPI 3010 C T 1R0 N - □□

1 2 3 4 5 6

 taping

1 Product Type

2 Shape & Dimension



Size	A	B	C
TPI3010	(0.118 ± 0.004) 3.00 ± 0.10	(0.118 ± 0.004) 3.00 ± 0.10	(0.039 max.) 1.00 max.
TPI3012	(0.118 ± 0.004) 3.00 ± 0.10	(0.118 ± 0.004) 3.00 ± 0.10	(0.047 max.) 1.20 max.
TPI3015	(0.118 ± 0.004) 3.00 ± 0.10	(0.118 ± 0.004) 3.00 ± 0.10	(0.059 max.) 1.50 max.

(inch)
mm

3 Coating Type

C : Coating

4 Inductance

1R0 = 1.0uH 100 = 10uH 101 = 100uH

5 Tolerance

M = ±20% N = ±30%

6 Internal Code

TPI30xx Series

TPI3010 Series

Part No.	Inductance (uH)	Test Freq.	Tolerance	DC Resistance (mΩ)		Rated DC Current (A)	
				Max.	Typ.	Idc1	Idc2
TPI3010CT 1R0 □-□□	1.0	100KHz, 1V	N	63	50	2.30	2.30
TPI3010CT 1R2 □-□□	1.2	100KHz, 1V	N	81	62	1.90	2.10
TPI3010CT 1R5 □-□□	1.5	100KHz, 1V	N	91	70	1.65	2.00
TPI3010CT 2R2 □-□□	2.2	100KHz, 1V	M	96	80	1.30	1.90
TPI3010CT 3R3 □-□□	3.3	100KHz, 1V	M	156	130	1.05	1.80
TPI3010CT 4R7 □-□□	4.7	100KHz, 1V	M	210	175	0.85	1.70
TPI3010CT 6R8 □-□□	6.8	100KHz, 1V	M	312	260	0.70	1.30
TPI3010CT 100 □-□□	10	100KHz, 1V	M	420	350	0.60	0.90
TPI3010CT 150 □-□□	15	100KHz, 1V	M	612	510	0.50	0.80
TPI3010CT 220 □-□□	22	100KHz, 1V	M	936	780	0.40	0.70
TPI3010CT 330 □-□□	33	100KHz, 1V	M	1320	1100	0.32	0.50
TPI3010CT 470 □-□□	47	100KHz, 1V	M	1920	1600	0.28	0.35
TPI3010CT 101 □-□□	100	100KHz, 1V	M	6000	5000	0.15	0.18

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.).

TPI30xx Series

TPI3012 Series

Part No.	Inductance (uH)	Test Freq.	Tolerance	DC Resistance (mΩ)		Rated DC Current (A)	
				Max.	Typ.	Idc1	Idc2
TPI3012CT 1R0 □-□□	1.0	100KHz, 1V	N	54	45	1.90	1.71
TPI3012CT 1R5 □-□□	1.5	100KHz, 1V	N	66	55	1.50	1.60
TPI3012CT 2R2 □-□□	2.2	100KHz, 1V	M	72	60	1.25	1.37
TPI3012CT 2R7 □-□□	2.7	100KHz, 1V	M	108	90	1.20	1.30
TPI3012CT 3R3 □-□□	3.3	100KHz, 1V	M	108	90	1.05	1.21
TPI3012CT 4R7 □-□□	4.7	100KHz, 1V	M	180	150	0.90	1.06
TPI3012CT 6R8 □-□□	6.8	100KHz, 1V	M	228	190	0.70	0.89
TPI3012CT 100 □-□□	10	100KHz, 1V	M	324	270	0.60	0.72
TPI3012CT 150 □-□□	15	100KHz, 1V	M	540	450	0.50	0.57
TPI3012CT 220 □-□□	22	100KHz, 1V	M	660	550	0.40	0.50
TPI3012CT 330 □-□□	33	100KHz, 1V	M	1080	900	0.30	0.41
TPI3012CT 470 □-□□	47	100KHz, 1V	M	1500	1250	0.23	0.35

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TPI30xx Series

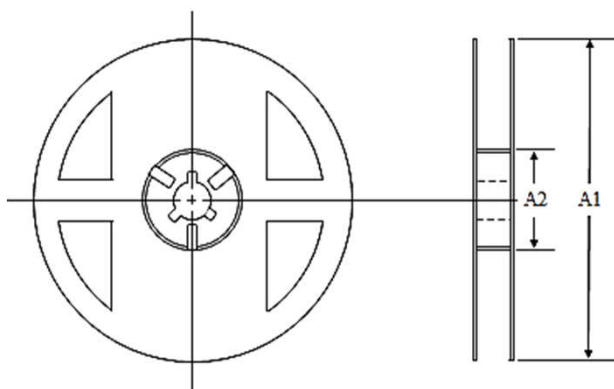
TPI3015 Series

Part No.	Inductance (uH)	Test Freq.	Tolerance	DC Resistance (mΩ)		Rated DC Current (A)	
				Max.	Typ.	Idc1	Idc2
TPI3015CT 1R0 □-□□	1.0	100KHz, 1V	N	36	28	2.30	2.30
TPI3015CT 1R5 □-□□	1.5	100KHz, 1V	N	48	37	2.10	2.10
TPI3015CT 2R2 □-□□	2.2	100KHz, 1V	M	70	58	1.62	2.00
TPI3015CT 2R7 □-□□	2.7	100KHz, 1V	M	72	60	1.50	1.95
TPI3015CT 3R3 □-□□	3.3	100KHz, 1V	M	90	75	1.35	1.80
TPI3015CT 4R7 □-□□	4.7	100KHz, 1V	M	120	100	1.20	1.60
TPI3015CT 5R6 □-□□	5.6	100KHz, 1V	M	144	120	1.00	1.40
TPI3015CT 6R8 □-□□	6.8	100KHz, 1V	M	180	150	0.97	1.30
TPI3015CT 100 □-□□	10	100KHz, 1V	M	264	220	0.80	1.10
TPI3015CT 150 □-□□	15	100KHz, 1V	M	360	300	0.65	1.00
TPI3015CT 180 □-□□	18	100KHz, 1V	M	492	410	0.57	0.90
TPI3015CT 220 □-□□	22	100KHz, 1V	M	570	475	0.55	0.80
TPI3015CT 330 □-□□	33	100KHz, 1V	M	780	650	0.45	0.70
TPI3015CT 390 □-□□	39	100KHz, 1V	M	1020	850	0.40	0.50
TPI3015CT 470 □-□□	47	100KHz, 1V	M	1320	1100	0.35	0.45
TPI3015CT 680 □-□□	68	100KHz, 1V	M	2040	1700	0.30	0.35
TPI3015CT 820 □-□□	82	100KHz, 1V	M	2280	1900	0.27	0.32
TPI3015CT 101 □-□□	100	100KHz, 1V	M	2520	2100	0.25	0.30

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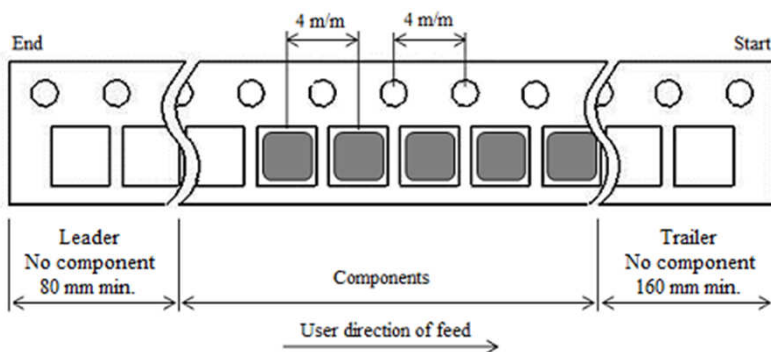
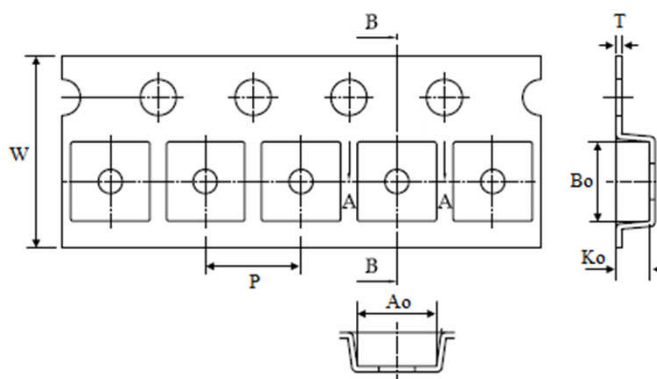
(unit : m/m)

Type	Pcs/Reel	Reel"	A1	A2
3010	2,000	7"	178	60
3012	2,000	7"	178	60
3015	2,000	7"	178	60



(unit : m/m)

Type	3010	3012	3015	
Chip Cavity	Ao	3.30	3.30	3.30
	Bo	3.30	3.30	3.30
Insert Pitch	P	4.00	4.00	4.00
Tape Thickness	Ko	1.40	1.40	1.70
	T	0.23	0.23	0.23
Tape Width	W	8.00	8.00	8.00



Recommended Footprint (unit : m/m)

Type	A	B	C
3010	3.00	2.70	0.80
3012	3.00	2.70	0.80
3015	3.00	2.70	0.80

Recommended Pattern

