

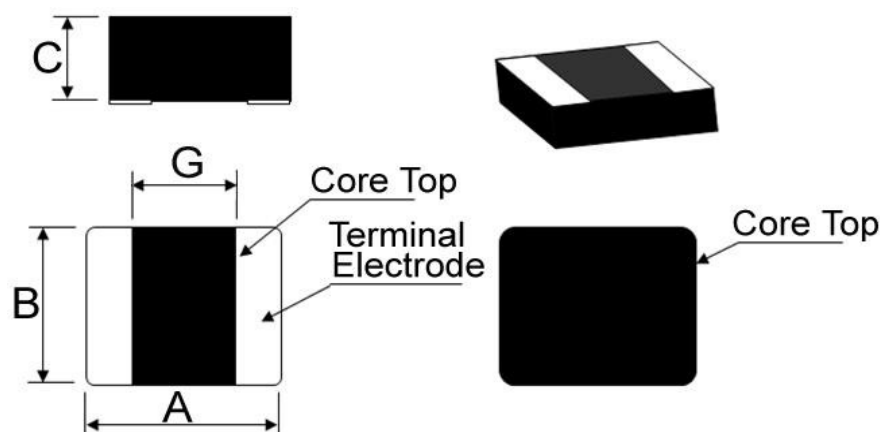


Indac ELECTRONICS CORP.
Total solution partner for EMI,Power and RF

SPECIFICATION FOR APPROVAL

Customer : _____ Date : **2023/8/20**
Customer P/N: _____ Rev No. : **A**
Indac P/N : INYT201210t 系列

1.MECHANICAL & DIMENSIONS



(UNIT: mm)

A	2.0±0.2
B	1.2±0.2
C	1.0Max
G	0.5±0.2

REMARK

NO Marking

2.TEMPERATURE RATING:

Operating	-55°C~ +125°C(Including self-temperature rise)
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3.PRODUCT IDENTIFICATION:

INYT 201210 T- 1R0 M T

A B C D E F

A: Product Series.

D: Inductance

B: Series number, part size

E:Inductance Tolerance. (K±10% M±20% T±30%)

C: Edition

F: Packing

PREPARED BY

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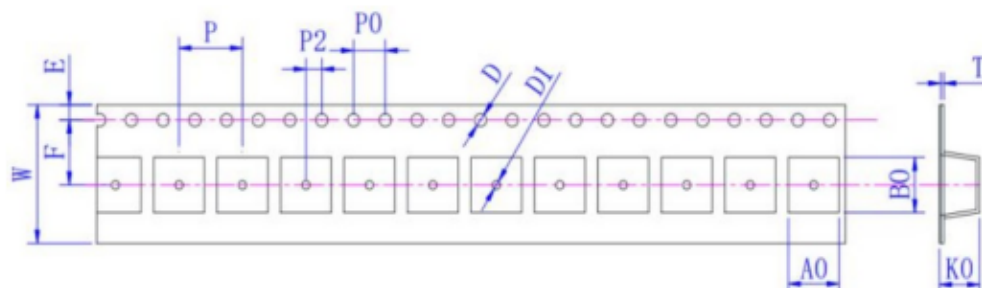
4.ELECTRICAL REQUIREMENTS:

NO	Part Number	Inductance	DC Resistance		Isat(A)		Irms(A)		Marking
		1MHz/0.1V	Max.	Typ.	Max.	Typ.	Max.	Typ.	
	Units	(uH)	mΩ	mΩ	A	A	A	A	
1	INYT201210TR10MT	0.10±20%	13	8	8.1	8.5	7.1	7.5	N/A
2	INYT201210TR22MT	0.22±20%	22	16	6.8	7.4	6.6	7.1	N/A
3	INYT201210TR24MT	0.24±20%	23	17	6.8	7.2	6.5	7.0	N/A
4	INYT201210TR33MT	0.33±20%	32	24	6.1	6.5	5.1	5.5	N/A
5	INYT201210TR47MT	0.47±20%	36	30	5.1	5.5	4.4	4.7	N/A
6	INYT201210TR68MT	0.68±20%	43	37	4.6	5.0	4.1	4.4	N/A
7	INYT201210T1R0MT	1.0±20%	63	55	3.6	4.0	3.5	4.0	N/A
8	INYT201210T1R5MT	1.5±20%	85	76	2.8	3.2	2.7	3.1	N/A
9	INYT201210T2R2M	2.2±20%	150	135	2.5	2.7	1.7	2.0	N/A
10	INYT201210T4R7M	4.7±20%	325	285	1.6	1.4	1.7	1.5	N/A

Test remarks

- 1.All test data is referenced to 25 °C ambient.
- 2.Test Condition:1MHz, 1.0Vrms.
- 3.Irms:DC current (A) that will cause an approximate ΔT of 40 °C.
- 4.Isat:DC current (A) that will cause L0 to drop approximately 30%.
- 5.Operating Temperature Range -55°C to + 125°C.
- 6.The part temperature (ambient + temp rise) should not exceed 125 under °C the worst case operating conditions. Circuit design, component placement, PCB trace size and thickness, airflow and other cooling provision all affect the part temperature. Part temperature should be verified in the end application.
- 7.The rated current as listed is either the saturation current or the heating current depending on which value is lower.
- 8.Absolute maximum voltage 15VDC.

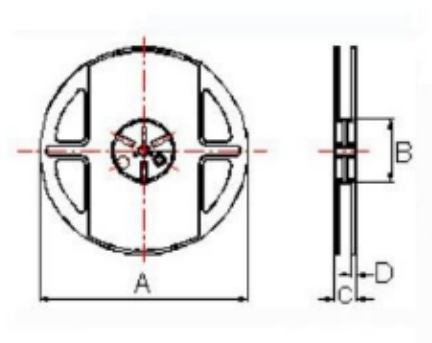
PACKAGING



Series	W ±0.30	A0 ±0.05	B0 +0.1/-0	D +0.1/-0	D1 Min	E ±0.10	F ±0.10	K0 ±0.05	P0 ±0.10	P2 ±0.10	P ±0.10	T ±0.05
201210	8.00	1.50	2.30	1.50	1.0	1.75	3.50	1.20	4.00	2.00	4.00	0.23

Dimension of Reel: (Unit: mm)

Type	A ±0.5	B ±0.5	C ±0.5	D ±1
All	178	60	12	1.5



Packaging Quantity

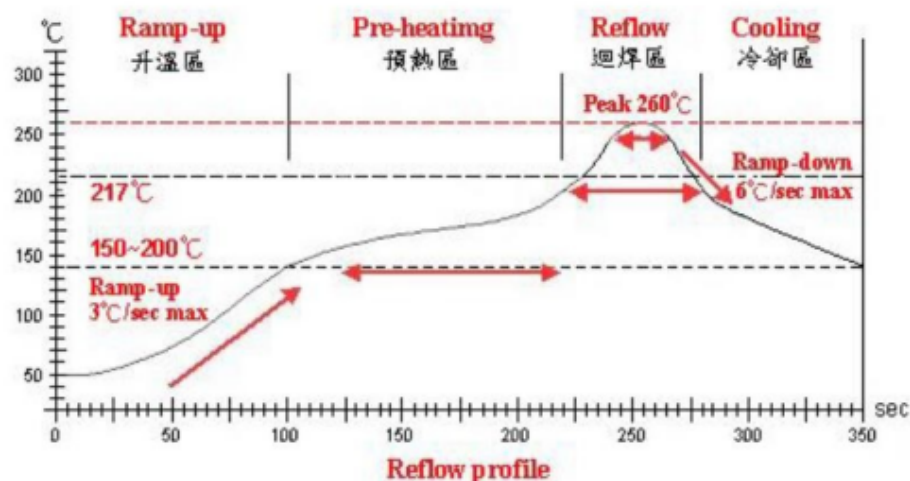
P/N	Chip/Reel
INYT201210T1R0MT	3000

※Storage Conditions

1. Temperature and humidity conditions: -10-+40°C and 70% RH.
2. Recommended products should be used within 12 months form the time of delivery.
3. The packaging material should be kept where no chlorine or sulfur exists in the air.

■ For Lead-Free Application

Figure . Re-flow Soldering



Lead-Free(LF) 標準溫度分析範圍

Refer to J-STD-020C

管制項目 Item.	升温區 Ramp-up	預熱區 Pre-heating	迴焊區 Reflow	Peak Temp	冷卻區 Cooling
溫度範圍 Temp.scope	R.T. ~ 150°C	150°C ~ 200°C	217°C	260±5°C	Peak Temp. ~ 150°C
標準時間 Time spec.	—	60 ~ 180 sec	60 ~ 150sec	20 ~ 40 sec	—
實際時間 Time result	—	75 ~ 100 sec	90 ~ 120sec	20 ~ 35 sec	—

NOTE :

1. Re-flow possible times : within 2 times
2. Nitrogen adopted is recommended while in re-flow



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HBE Series Specification

Reliability Of Wire Wound Power Inductors

Mechanical Reliability

Item	Specification and Requirement	Test Method
Solderability	1. No case deformation or change in visual 2. New solder	1.Preheat: 155℃±5℃ , 60S±2S 2.Tin: lead-free. 3.Temperature:240℃±5℃, flux 3.0S±0.5S.
Mechanical shock	1. No case deformation or change in visual 2. $\Delta L/L_0 \leq \pm 10\%$	1. Acceleration: 100G 2. Pulse time: 6ms 3. 3 times in each positive and negative direction of 3 mutual perpendicular directions
Mechanical vibration	1. No case deformation or change in visual 2. $\Delta L/L_0 \leq \pm 10\%$	1. Reflow: 2times 2. Frequency: 10HZ~50HZ~10HZ, 20 Min/Cycles 3. Amplitude: 1.52 mm±10% 4. Directions: X,Y,Z 5. Time: 12 cycle /direction

Endurance Reliability

Item	Specification and Requirement	Test Method
Thermal Shock	Inductance change: Within $\pm 10\%$ Without distinct damage in visual	1. First -55℃ for 30 minutes, last 125℃ for 30 minutes as 1 cycle. Go through 1000 cycles. 2. Max transfer time is 3 minutes. 3. Measured at room temperature after placing
Humidity Resistance	Inductance change: Within $\pm 10\%$ Without distinct damage in visual	1.Reflow 2 times, 2.85℃±3℃,85%±3%RH,1000 hours 3.Measured at room temperature after placing
Low temperature storage	Inductance change: Within $\pm 10\%$ Without distinct damage in visual	1. Temperature: -55 ± 2℃ 2. Time: 1000 hours 3. Measured at room temperature after placing for 24±2 hours
High temperature storage	Inductance change: Within $\pm 10\%$ Without distinct damage in visual	1. Temperature: +125 ± 2℃ 2. Time: 1000 hours 3. Measured at room temperature after placing for 24±2 hours