

SPECIFICATION FOR APPROVAL

Customer : _____

Date : 2024/5/10

Indac P/N : INYT0420T-SERIES

Rev No. : A

1.PRODUCT IDENTIFICATION:

INYT 0420 T 2R2 M T

A B C D E F

A: Product Series.

D: Inductance

B: Series number, part size

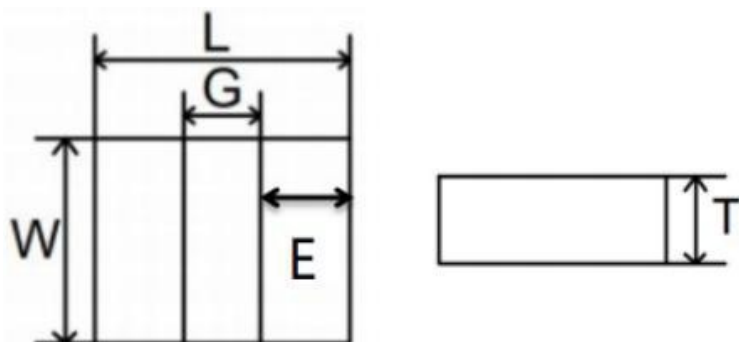
E: Inductance Tolerance. (K±10% M±20% T±30%)

C: Materials

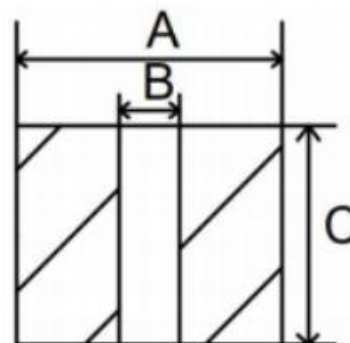
F:Packing

2.MECHANICAL & DIMENSIONS

Shape and Dimensions



Recommended Pattern



Units : mm

Series	L	G	W	E	T	A	B	C
INYT0420	4.1±0.2	1.3±0.2	4.1±0.2	1.40±0.2	2.00max	4.00typ	1.10typ	4.10typ

PREPARED BY

CHECKED BY

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mei.li

fie.ma



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3.ELECTRICAL REQUIREMENTS:

NO	Part Number	Inductance	RDC		Isat		Irms		Marking
		1MHz/0.1V	Max.	Typ.	Max.	Typ.	Max.	Typ.	
	Units	(μ H)	m Ω	m Ω	A	A	A	A	
1	INYT0420TR47MT	0.47	8.5	7.0	15.0	16.0	8.0	8.5	N/A
2	INYT0420T1R0MT	1.0	14.5	12	11.5	12.5	6.0	6.5	N/A
3	INYT0420T1R5MT	1.5	22	18	9.5	10.5	5.5	6.0	N/A
4	INYT0420T2R2MT	2.2	36	33	8.5	9.5	5.0	5.5	N/A
5	INYT0420T4R7MT	4.7	58	47	5.5	6.3	4.0	5.0	N/A
6	INYT0420T6R8MT	6.8	105	90	4.5	5.4	3.2	3.7	N/A
7	INYT0420T100MT	10	135	113	4.0	4.9	3.0	3.4	N/A
8	INYT0420T150MT	15	250	210	3.0	3.5	1.7	2.3	N/A
9	INYT0420T220MT	22	330	275	2.3	2.9	1.3	1.8	N/A

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T=±30%

- All test data is referenced to 25°C ambient
- Test Condition: 1MHz, 0.1Vrms
- Irms: DC current(A) that will cause an approximate ΔT of 40°C
- Isat: DC current(A) that will cause L0 to drop approximately 30%
- Operating temperature range — 55°C to ~+155°C

Packaging Quantity

P/N	Chip/Reel	Inner Box	Outer Box
INYT0420TSERIES	3000	---	---

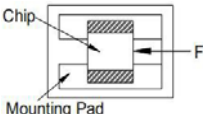
1. +40°C and 70% RH.
2. Recommended products should be used within 12 months form the time of delivery.
3. The packaging material should be kept where no chlorine or sulfur exists in the air.

PREPARED BY	CHECKED BY	APPROVED BY
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INYT Series Specification

Reliability Of Wire Wound Power Inductors

1-1.Mechanical Performance

No	Item	Specification	Test Method
1-1-1	Flexure Strength	The forces applied on the right conditions must not damage the terminal electrode and the metal body	Test device shall be soldered on the substrate, Substrate Dimension: 100x40x1.6mm Deflection: 2.0mm Keeping Time: 30sec
1-1-2	Vibration	Appearance: No damage(for microscope of CASTOR MZ-45 20X) Inductance change shall be within $\pm 20\%$	Test device shall be soldered on the substrate, Oscillation Frequency: 10 to 55 to 10Hz for 1min Amplitude: 1.5mm Time: 2hrs for each axis (X, Y & Z), total 6hrs
1-1-3	Resistance to Soldering Heat	Appearance: No damage More than 75% of the terminal. electrode should be covered with solder, inductance: within $\pm 20\%$ of initial value	Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5 Solder Temperature: 260 $\pm 5^\circ\text{C}$ Immersion Time: 30 ± 1 sec
1-1-4	Solder ability	The electrodes shall be at least 95% covered with new solder coating	Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245 $\pm 3^\circ\text{C}$ Immersion Time: 4 ± 1 sec
1-1-5	Terminal Strength Test	No split termination 	Test device shall be soldered on the substrate, then apply a force in the direction of the arrow, Force: 5N Keeping Time: 10 ± 1 sec

1-2.Environmental Performance

No	Item	Specification	Test Method		
1-2-1	Temperature Cycle	Appearance: No damage Inductance:within±10% of initial value	One cycle:		
			Step	Temperature (°C)	Time (min)
			1	-40±3	30
			2	25±2	3
			3	125±3	30
			4	25±2	3
			Total: 100cycles Measured after exposure in the room condition for 24hrs		
1-2-2	Humidity Resistance	1000 hours 85°C/85%RH. Unpowered. Measurement at 24±4 hours after test conclusion.			
1-2-3	High Temperature Resistance	Temperature: 85±3°C Relative Humidity:0% / Time:500hrs Measured after exposure in the room condition for 24hrs			
1-2-4	Low Temperature Resistance	Temperature: -40±3°C Relative Humidity: 0% / Time: 500hrs Measured after exposure in the room condition for 24hrs			