



佳邦科技股份有限公司

INPAQ TECHNOLOGY CO., LTD.

## NIP4018GX Series

# Specification

<b>Product Name</b>	<b>Power Inductor</b>
<b>Series</b>	<b>NIP4018GX</b>
<b>Size</b>	<b>EIAJ 4018</b>



## 4. General specifications

### 4.1. Temperature Specifications

Operating Temperature range: -40°C to +125°C (Including self-heating)

### 4.2. Electrical Specifications

Part No.	Inductance	DC Resistance	Heating Rating Current	Saturation Current
	L0 (μH)	DCR (mΩ)	Idc (A)	Isat (A)
	±20 %, 100 kHz/1V	±30%	MAX	MAX.
NIP4018GX-1R0M	1.0	23	2.00	4.00
NIP4018GX-1R5M	1.5	33	1.80	3.35
NIP4018GX-2R2M	2.2	42	1.75	2.70
NIP4018GX-3R3M	3.3	70	1.23	2.00
NIP4018GX-4R7M	4.7	90	1.20	1.70
NIP4018GX-5R6M	5.6	103	1.15	1.60
NIP4018GX-6R8M	6.8	124	1.06	1.45
NIP4018GX-100M	10	200	0.90	1.30
NIP4018GX-150M	15	268	0.65	0.94
NIP4018GX-220M	22	390	0.59	0.80
NIP4018GX-330M	33	560	0.55	0.67
NIP4018GX-470M	47	850	0.42	0.60

#### Notes

1. All test data is referenced to 25 °C ambient
2. Idc(A):DC current (A) that will cause an approximate ΔT of 40 °C (reference ambient temperature is 25°C)
3. Isat(A):DC current (A) that will cause L0 to drop approximately 35 %

## 5. Reliability and Test Conditions

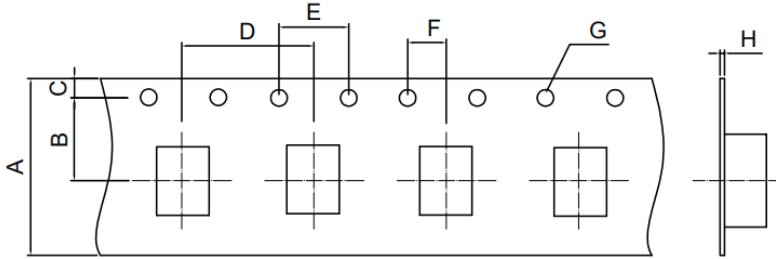
Item	Specification and Requirement	Test Method
Solderability	The surface of terminal immersed shall be minimum of 95% covered with a new coating of solder	Solder heat proof with dipping condition: $260 \pm 5$ °C for $3 \pm 0.5$ seconds
Terminal Strength	No electrodes detachment should be found	Add static load 4.9 N(500gf) to inductor for $10 \pm 2$ sec
Vibration	Inductance change: Within $\pm 20\%$ Without mechanical damage	The specimen shall be subjected to a vibration of 1.5mm amplitude, sweep frequency 10~55~10Hz after vibration for 1 hours
Thermal Shock	Inductance change: Within $\pm 20\%$ Without distinct damage in appearance	Applying 20 continuous cycles of temperature change of $-40^{\circ}\text{C} \pm 3^{\circ}\text{C}$ for 30 min and $125^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for 30 min with the transit period of 2min or less.
High Temperature Resistance	Inductance change: Within $\pm 20\%$ Without distinct damage in appearance	1. Environment condition: $85 \pm 2$ °C Applied Current: Rated current 2. Duration: $500 + 4 / -0$ hours
Humidity Resistance	Inductance change: Within $\pm 20\%$ Without distinct damage in appearance	1. Environment condition: $40 \pm 2$ °C Humidity: 90–95% 2. Duration: $96 \pm 4$ hours
High/Low Temperature Store	Inductance change: Within $\pm 20\%$ Without distinct damage in appearance	Store temperature: High: $+125 \pm 2$ °C, $96 \pm 1$ hours Low: $-40 \pm 3$ °C, $96 \pm 1$ hours

Note: Specimens shall be stabilized under standard atmospheric conditions for 1 h before measurement.

Measurement shall be made within 1h~ 2h.

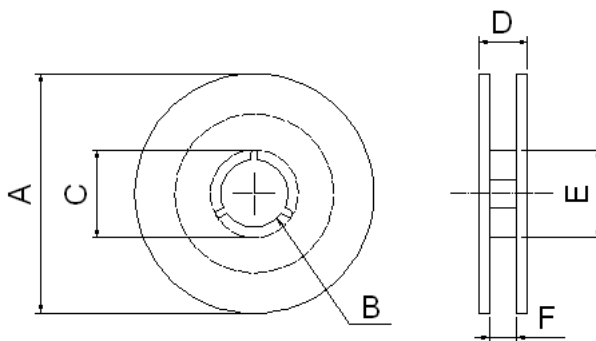
## 6. Taping Package

### 6.1 Dimension of Tape (Unit: mm)



A	12.0
B	5.50
C	1.75
D	8.00
E	4.00
F	2.00
G	Ø1.50
H	0.30

### 6.2 Dimension of Reel (Unit: mm)



A	330.0
B	Ø13.0
C	21.0
D	16.4
E	100
F	12.4

### 6.3 Packaging Quantities:

3,000 PCS/Reel.

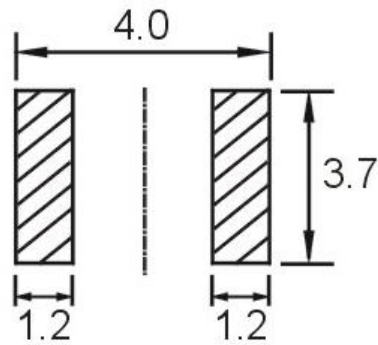
### 6.4 Label Marking

The label specified as follows shall be put on the side of reel.

- (1) Part No.
- (2) Quantity
- (3) Lot No.

\* Part No. And Quantity shall be marked on outer packaging.

7. Recommended Land Pattern (unit: mm)



8. Recommended Reflow Soldering

