

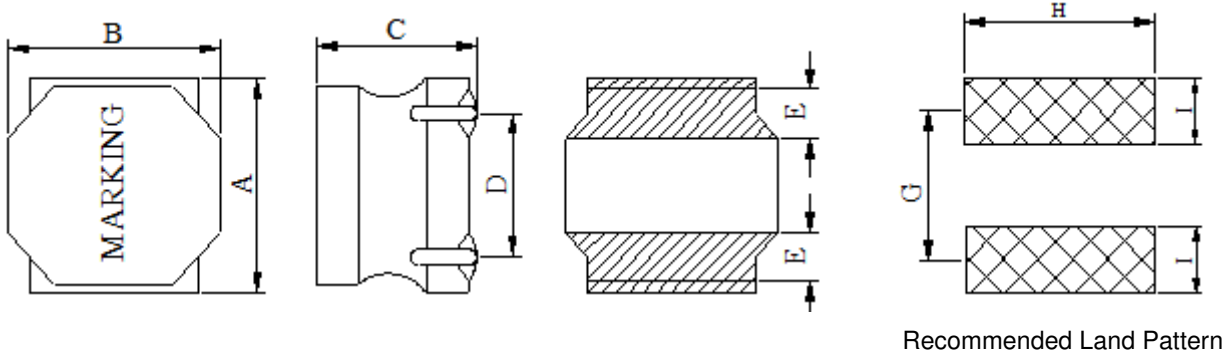
1. Part No. Expression

PNS50401R0YZF

(a) (b) (c) (d)(e)(f)

- | | |
|---------------------|--------------------|
| (a) Series Code | (d) Tolerance Code |
| (b) Dimension Code | (e) Special Code |
| (c) Inductance Code | (f) Packaging Code |

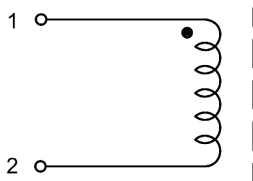
2. Configuration & Dimensions: (Unit:- mm)



Note: Solder paste thickness at 0.12mm and above is recommended.

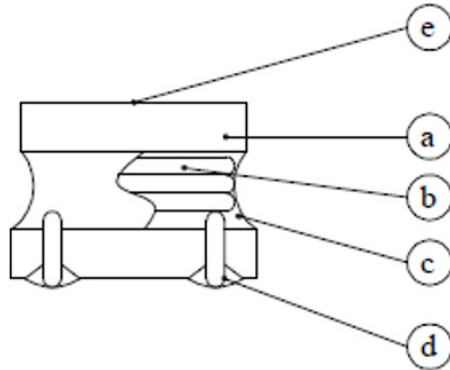
A	B	C	D	E	G	H	I
5.0±0.2	5.0±0.2	4.0 Max	3.3±0.2	1.2±0.2	3.6 Ref	4.0 Ref	1.5 Ref

3. Schematic



NOTE: Specifications subject to change without notice. Please check our website for latest information.

4. Material List



- a) Core
- b) Wire
- c) Adhesive
- d) Terminal
- e) Ink

5. General Specifications

- (a) Operating Temp. : -40°C to +125°C (Including self-temperature rise).
- (b) Storage Temp. : -40°C to +125°C.
- (c) Irms: Based on temperature rise (ΔT : 40°C Typ).
- (d) Isat: Based on inductance change ($\Delta L/L_0$: 30% Typ).
- (e) Storage condition (component in its packaging)
 - i) Temperature: Less than 40°C
 - ii) Humidity: 60% RH

NOTE: Specifications subject to change without notice. Please check our website for latest information.

6. Electrical Characteristics

Part Number	Inductance (uH)	Test Freq. (Hz)	DCR (Ω)	Isat (A)	Irms (A)	SRF (MHz) Typ	Marking
PNS50401R0YZF	1.0±30%	1V/100K	0.014±30%	7.35	4.9	70	1R0
PNS50401R5YZF	1.5±30%	1V/100K	0.020±20%	6.0	3.6	60	1R5
PNS50402R2YZF	2.2±30%	1V/100K	0.022±20%	4.6	3.5	42	2R2
PNS50403R3YZF	3.3±30%	1V/100K	0.027±20%	3.8	3.3	32	3R3
PNS50404R7YZF	4.7±30%	1V/100K	0.029±20%	3.3	3.1	28	4R7
PNS50406R8MZF	6.8±20%	1V/100K	0.049±20%	2.6	2.3	21	6R8
PNS5040100MZF	10.0±20%	1V/100K	0.056±20%	2.3	2.1	18	100
PNS5040150MZF	15.0±20%	1V/100K	0.080±30%	2.0	1.8	13	150
PNS5040220MZF	22.0±20%	1V/100K	0.126±20%	1.6	1.4	9	220
PNS5040330MZF	33.0±20%	1V/100K	0.180±20%	1.3	1.2	7	330
PNS5040470MZF	47.0±20%	1V/100K	0.310±20%	1.1	0.9	6	470
PNS5040680MZF	68.0±20%	1V/100K	0.500±30%	0.85	0.80	5	680
PNS5040101MZF	100.0±20%	1V/100K	0.560±30%	0.66	0.60	4	101

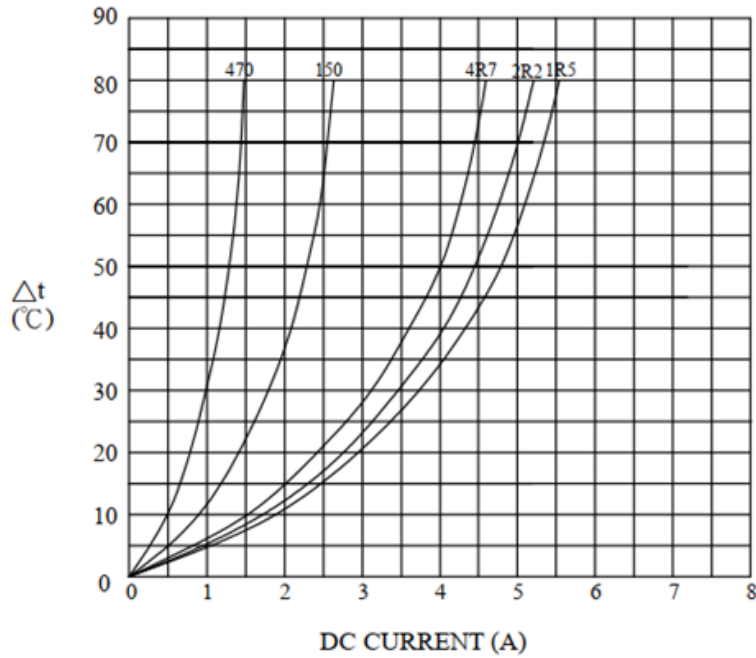
Tolerance: Y = ±30%; M = ±20%

NOTE: Specifications subject to change without notice. Please check our website for latest information.

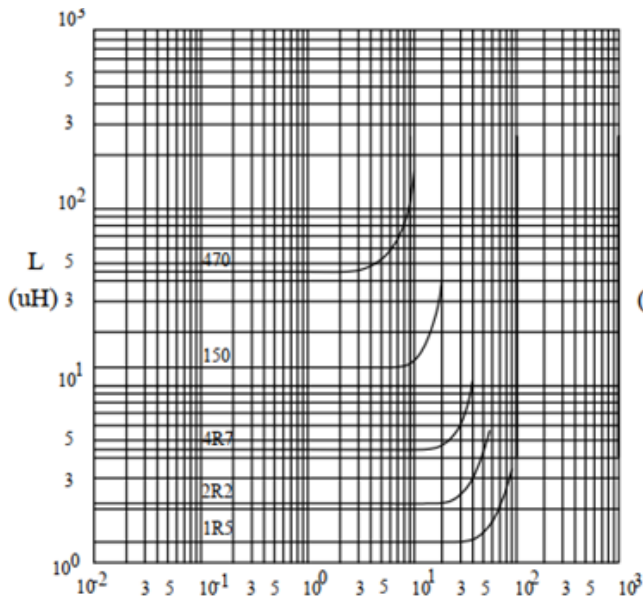


7. Characteristic Curves

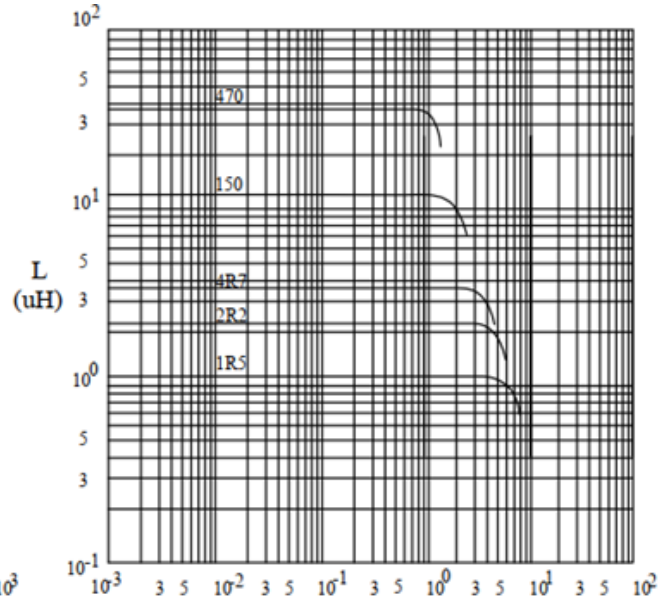
ΔT vs DC Superposition Response



L vs Frequency Response



L vs DC Superposition Response



NOTE: Specifications subject to change without notice. Please check our website for latest information.



8. Soldering and Mounting

Mildly activated rosin fluxes are preferred. Our terminations are suitable for all re-flow soldering systems. If hand soldering cannot be avoided, the preferred technique is the utilization of hot air soldering tools.

8-1 Solder Re-flow

Recommended temperature profiles for re-flow soldering in Figure 1.

8-2 Soldering Iron (Figure 2)

Products attachment with soldering iron is discouraged due to the inherent process control limitations. In the event that a soldering iron must be employed the following precautions are recommended.

Note:

- a) Preheat circuit and products to 150°C.
- b) 350°C tip temperature (Max.)
- c) Never contact the ceramic with the iron tip
- d) 1.0mm tip diameter (Max.)
- e) Use a 20 Watt soldering iron with tip diameter of 1.0mm.
- f) Limit soldering time to 4~5 sec.

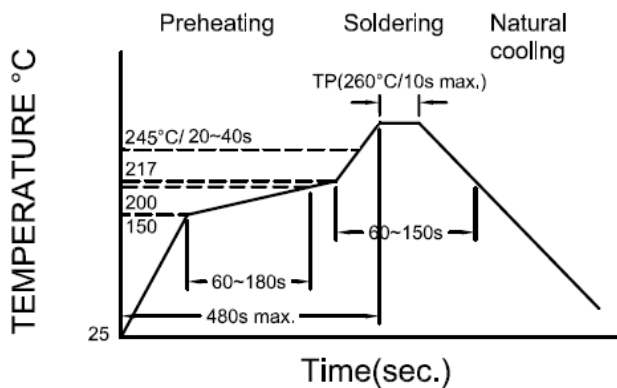


Figure 1: Re-flow Soldering Time
3 times Max.

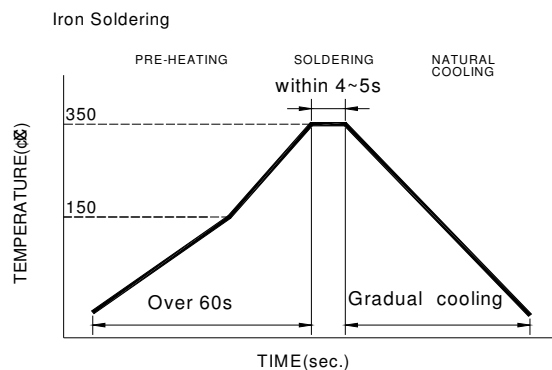
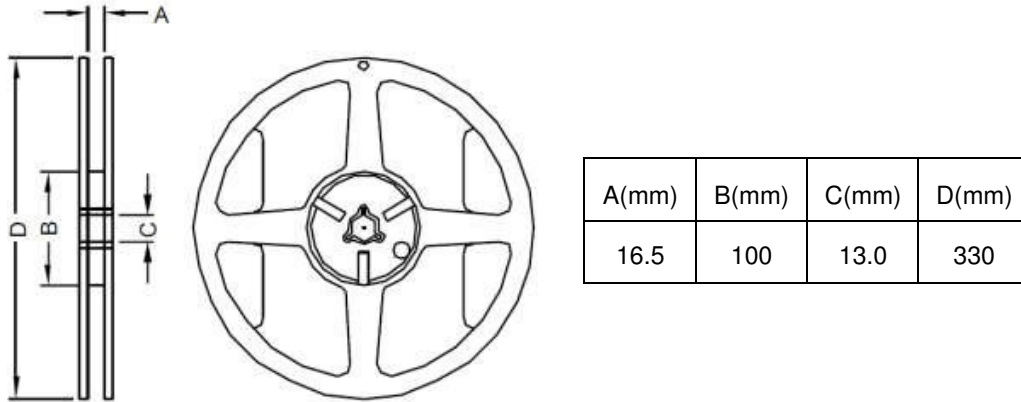


Figure 2: Iron Soldering Time
1 times Max.

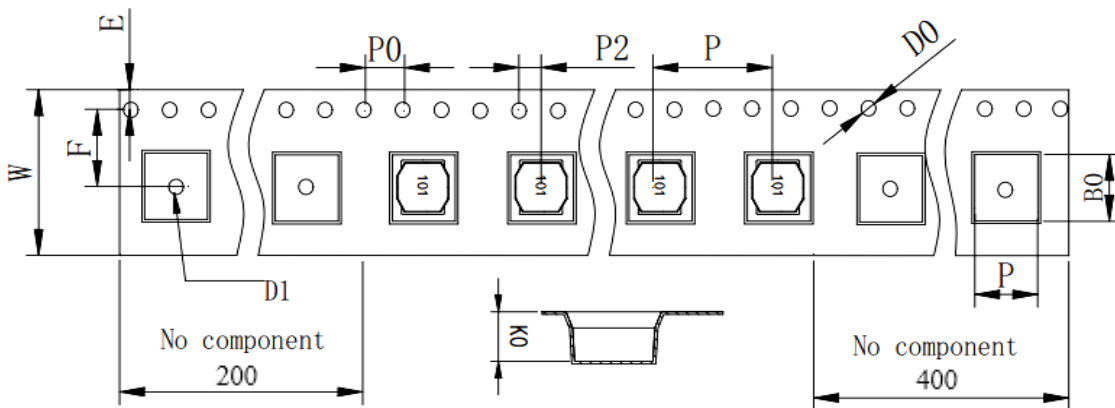
NOTE: Specifications subject to change without notice. Please check our website for latest information.

9. Packaging Information

9-1. Reel Dimension



9-2. Tape Dimension



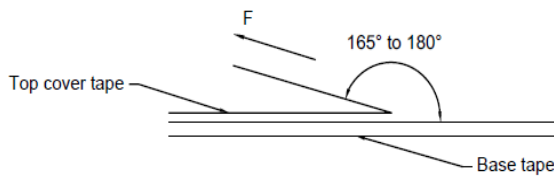
W(mm)	Ao(mm)	B0(mm)	Ko(mm)	P(mm)	P0mm)	P2(mm)	F(mm)	E(mm)	D0(mm)	D1(mm)
16.0	5.3	5.3	4.3	12.0	4.0	2.0	7.5	1.75	1.5	1.5

NOTE: Specifications subject to change without notice. Please check our website for latest information.

9-3 Packaging Quantity

Chip Size	PNS5040
Chip/Reel	1200
Carton	7200

9-4 Tearing Off Force



The force for tearing off cover tape is 10 to 130 grams in the arrow direction under the following conditions.

Room Temp. (°C)	Room Humidity (%)	Room atm (hPa)	Tearing Speed mm/min
5~35	45~85	860~1060	300

Application Notice:

1. Storage Conditions:

To maintain the solderability of terminal electrodes:

- a) Recommended products should be used within 12 months from the time of delivery.
- b) The packaging material should be kept where no chlorine or sulfur exists in the air.

2. Transportation:

- a) Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
- b) Vacuum pick up is strongly recommended for individual components.
- c) Bulk handling should ensure that abrasion and mechanical shock are minimized.

NOTE: Specifications subject to change without notice. Please check our website for latest information.