

# APPROVAL SHEET

## **WLPN808042 Series Shielded SMD Power Inductors**

\*Contents in this sheet are subject to change without prior notice.

**Features**

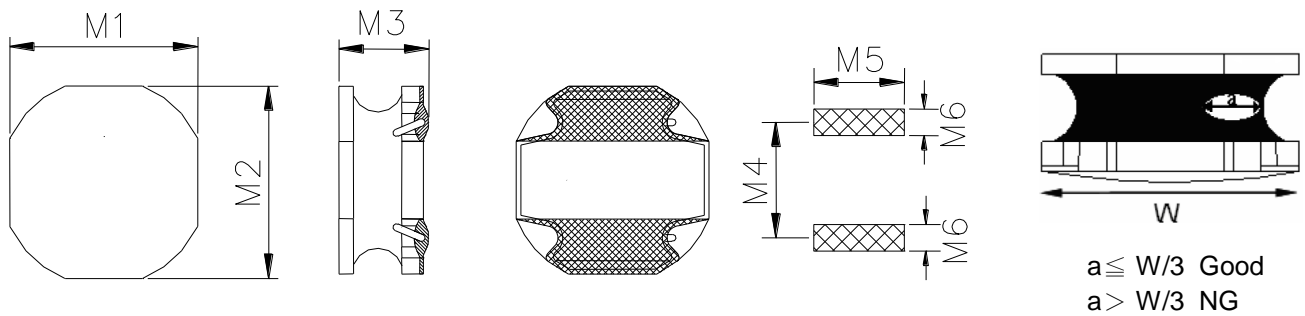
1. Close magnetic loop with magnetic resin shielded.
2. High inductance.

**Applications**

1. General propose power inductor in DC power system.
2. Inductor in DC/DC converter.
3. Low profile for portable and wearable device.
4. LC filter in Audio D class Amplifier.

**Shape and Dimension**

Unit: mm



ITEM	M1	M2	M3	M4	M5	M6
DIM.	8.0	8.0	4.2	5.6	7.5	2.2
TOL.	±0.2	±0.2	MAX.	-	-	-

**Ordering Information**

WL	PN	8080	42	N	1R4	L	B
<b>Product Code</b>	<b>Series</b>	<b>Dimensions</b>	<b>Thickness</b>	<b>Tolerance</b>	<b>Value</b>	<b>Packing Code</b>	
WL: Inductor	Shielded SMD Power Inductors	8.0 * 8.0 mm	4.2 mm	M: ± 20% N : ± 30%	R90= 0.9uH 1R4 = 1.4uH 100 = 10uH 101 = 100uH	L=13" Reeled (Embossed Tape)	B:STD

## Electrical Characteristics

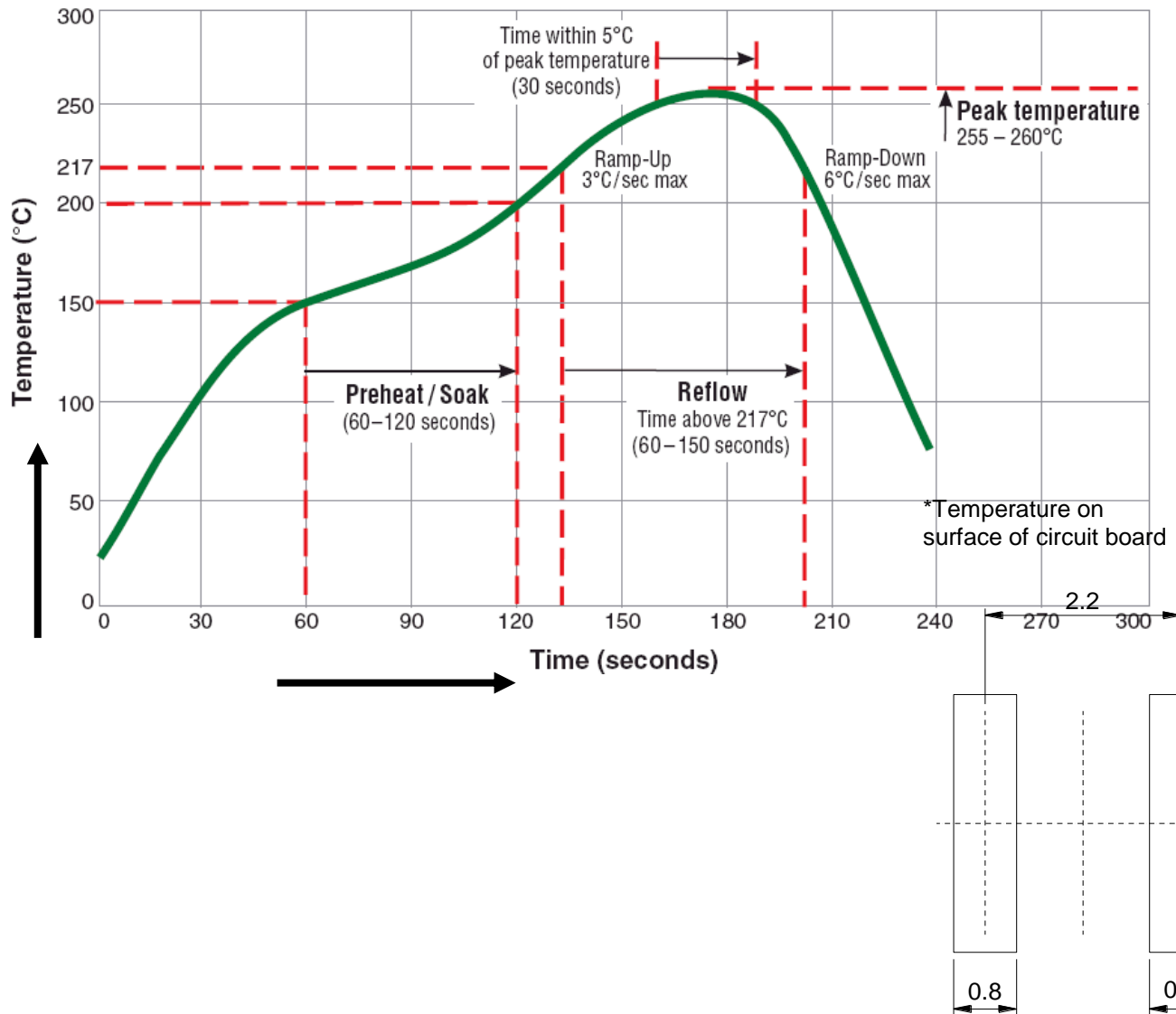
WLPN808042 Series	MARK	L (uH)	Inductance Tolerance	Test Freq (KHz)1V	DCR (mΩ)	Irms (A)	Isat (A)
WLPN808042□R90LB	R90	0.9	N	100	8.50	8.00	12.00
WLPN808042□1R4LB	1R4	1.4	N	100	11.00	7.80	10.80
WLPN808042□2R0LB	2R0	2.0	M、N	100	13.20	7.40	9.00
WLPN808042□2R2LB	2R2	2.2	M、N	100	15.60	6.00	7.50
WLPN808042□3R3LB	3R3	3.3	M、N	100	19.50	5.10	7.00
WLPN808042□3R6LB	3R6	3.6	M、N	100	19.50	4.90	6.00
WLPN808042□4R7LB	4R7	4.7	M、N	100	23.40	4.60	5.50
WLPN808042□5R1LB	5R1	5.1	M、N	100	24.70	4.05	4.70
WLPN808042□6R2LB	6R2	6.2	M、N	100	27.30	3.85	4.45
WLPN808042□6R8LB	6R8	6.8	M、N	100	31.20	4.40	5.00
WLPN808042□100LB	100	10.0	M、N	100	45.00	3.80	4.00
WLPN808042□150LB	150	15.0	M、N	100	61.10	2.80	3.00
WLPN808042□220LB	220	22.0	M、N	100	85.80	2.60	2.80
WLPN808042□330LB	330	33.0	M、N	100	120.00	1.80	2.00
WLPN808042□470LB	470	47.0	M、N	100	176.80	1.75	1.90
WLPN808042□680LB	680	68.0	M、N	100	246.00	1.45	1.70
WLPN808042□101LB	101	100	M、N	100	377.00	1.10	1.10

M=±20%,N=±30%

1. Test Frequency:100KHz /1V.
2. Test Equipment:  
L:CHROMA-3302+1320. or equivalent.  
SRF:HP-4291B or equivalent.  
RDC:CH16502BC or equivalent.
3. Isat: Based on inductance decrease 30% Max.(at 20℃)
4. Irms: Based on temperature increase 40℃ Max.(at 20℃)
5. Operating temperature range:-25℃ to +120℃ (Including self-temperature rise)
6. Storage temp.: -40℃ to +85℃.
7. MSL : LEVEL 1.
8. Product Weight:0.97g±10%.

Reflow Profile Chart (Reference):

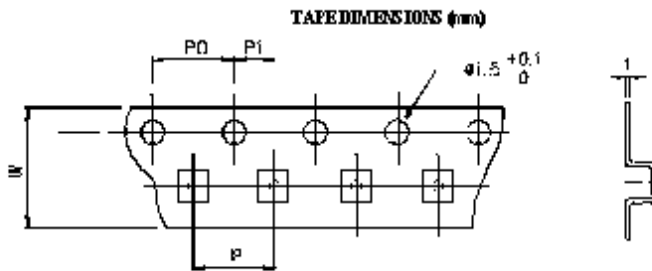
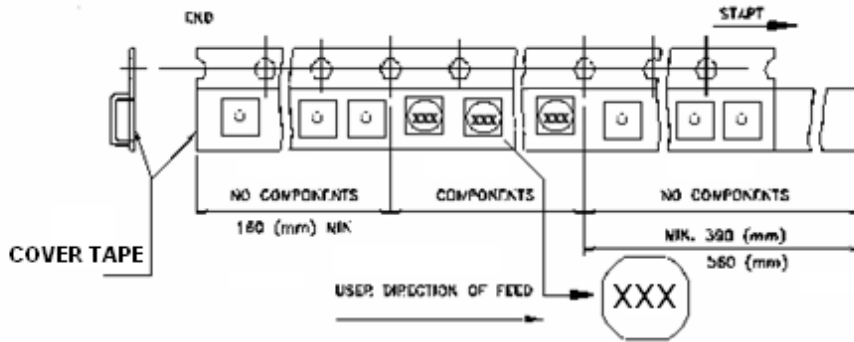
**Typical RoHS Reflow Profile**



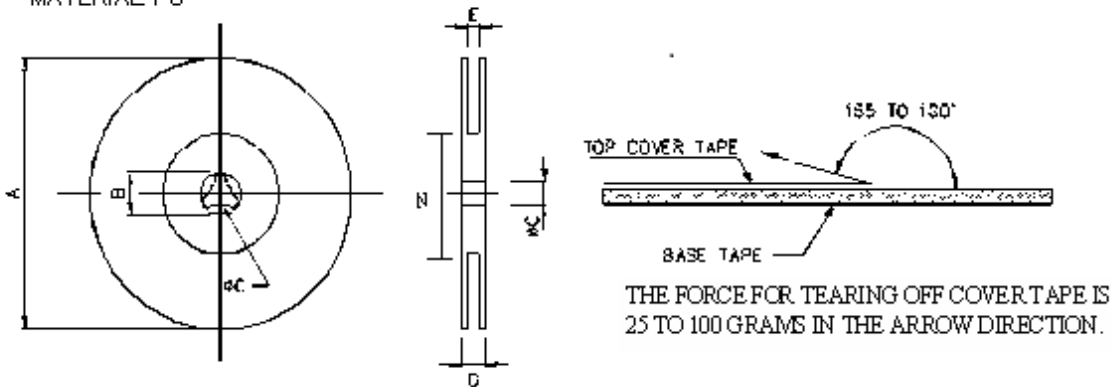
**Mechanical Performance /Environmental Test Performance Specifications:**

No.	Item	Test condition	Requirements
1	High temp. storage test	Electrical characteristics variation shall not change more 3%	Test conditions : +125°C±2°C For 48±2Hours
2	Low temp. storage test		Test conditions : -40°C±2°C For 48±2Hours
3	Temp. cycle test		Test conditions : +125 °C ±5 °C (30min.)~+25°C±5°C (2Hours) -40°C±5°C (30min.) Total test : 10 cycles
4	Humidity test		Temperature : +60°C±2°C Humidity : 90%±5% Time : 96 hours
5	Thermal shock test		Test conditions:+125 °C ±5 °C (30min.)~-65°C±5°C (30min.) Temp change:2 min. Total : 50 cycles
6	Life test		Test conditions : +70°C±5°C Total test : 300 hours Load rated current : Per spec.
7	Soldering heat bear Test	Appearance can not be broken	Reflow temperature up to above 245 °C Number of trials : 2 time
8	Terminal Strength Test	1. Test items were pushed off, or more than determine a standard requirement to stop 2. 6 pounds or more	Reflow temperature up to above 245 °C Solder Composition: Sn 96.5%, silver 3%, copper 0.5%
9	Package Physical shock Test	No damage	Frequency :10~55~10 Hz Amplitude : 1.5mm Direction : X,Y,Z time : Each axial 2 hours .total 6 hours
10	Cover Tape Peel Test	CPK>1	TAPE anti-fold 165 degrees to 180 degrees, peeling speed 300mm/60sec

**Tape & Reel Packaging Dimensions:**



CARRIER TAPE REELS  
MATERIAL: PS



Product Series	A	B	C	D	E	N	T	P1	P	P0	W
DIM.	330	21.0	13.0	22.4	16.4	80	0.40	2.0	12.0	4.0	16.0
TOL.	MAX	$\pm 0.8$	$+0.5-0.2$	MAX	$+2.0-0$	MIN	$\pm 0.05$	$\pm 0.10$	$\pm 0.10$	$\pm 0.10$	$\pm 0.30$

Quantity per reel : 1K pcs