

APPROVAL SHEET

WLPN808042 Series Shielded SMD Power Inductors



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

Features

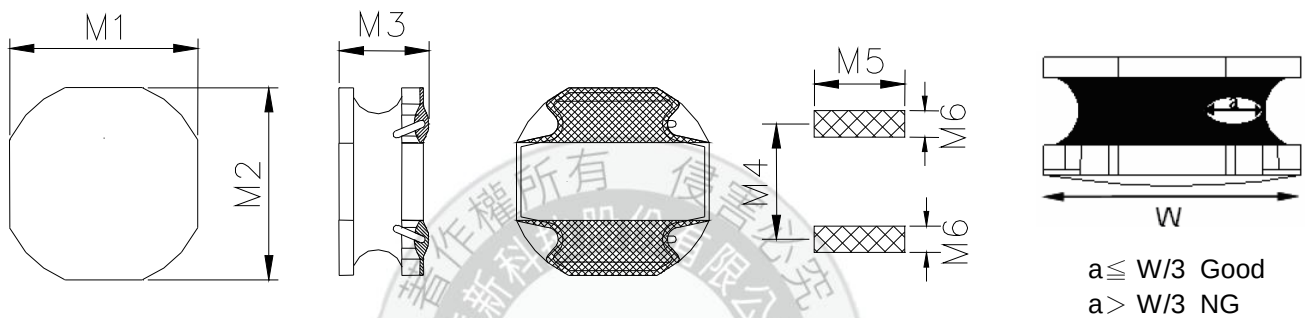
1. Close magnetic loop with magnetic resin shielded.
2. High inductance.

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
Product Code	Series	Dimensions	Thickness	Tolerance	Value	Packing Code	
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

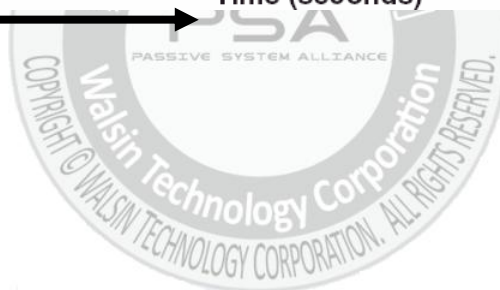
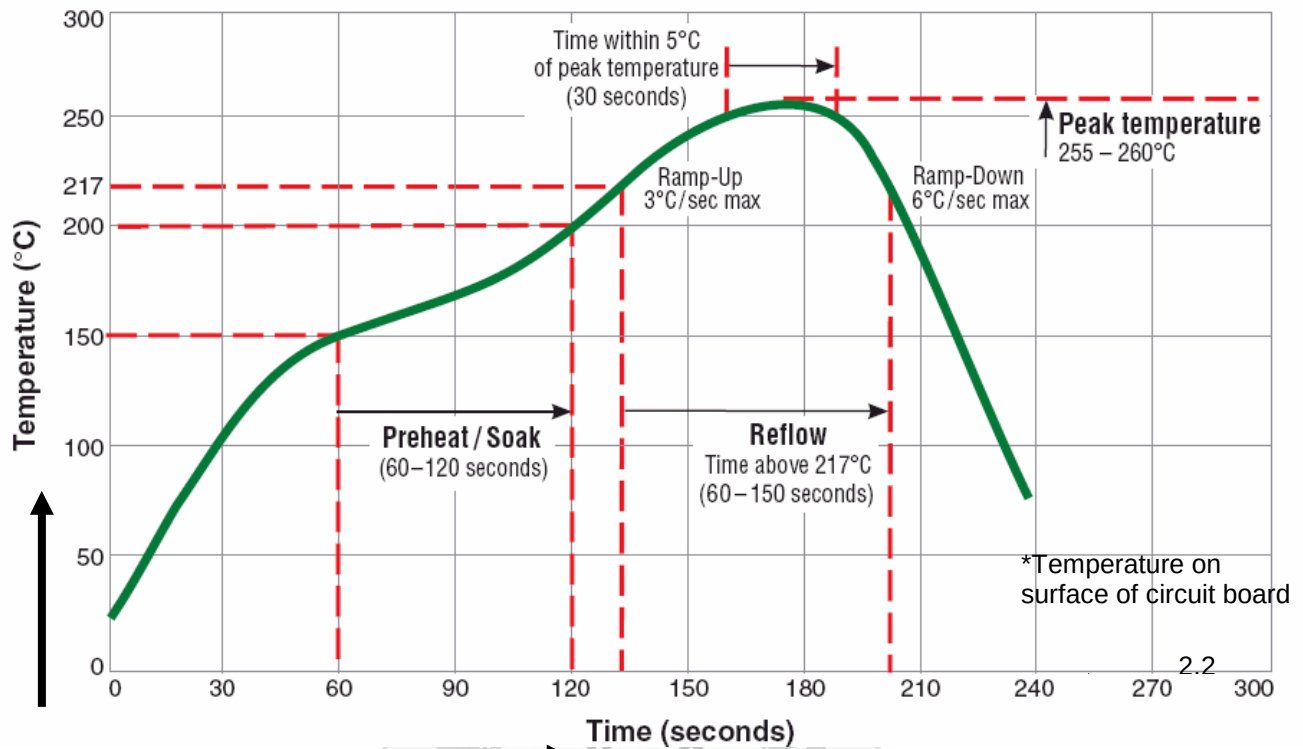
WLPN808042 Series	MARK	L (uH)	Inductance Tolerance	Test Freq (KHz)1V	DCR (mΩ)	Irms (A)	Isat (A)
WLPN808042□R90LB	R90	0.9	N	100	8.50	8.00	12.00
WLPN808042□1R4LB	1R4	1.4	N	100	11.00	7.80	10.80
WLPN808042□2R0LB	2R0	2.0	M、N	100	13.20	7.40	9.00
WLPN808042□2R2LB	2R2	2.2	M、N	100	15.60	6.00	7.50
WLPN808042□3R3LB	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):

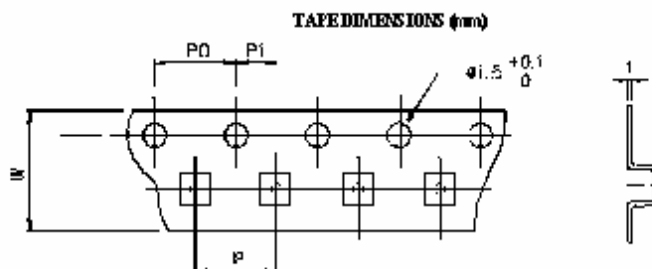
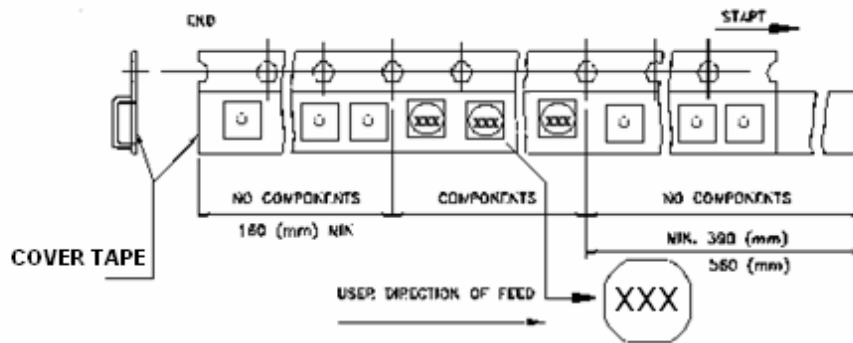
Typical RoHS Reflow Profile



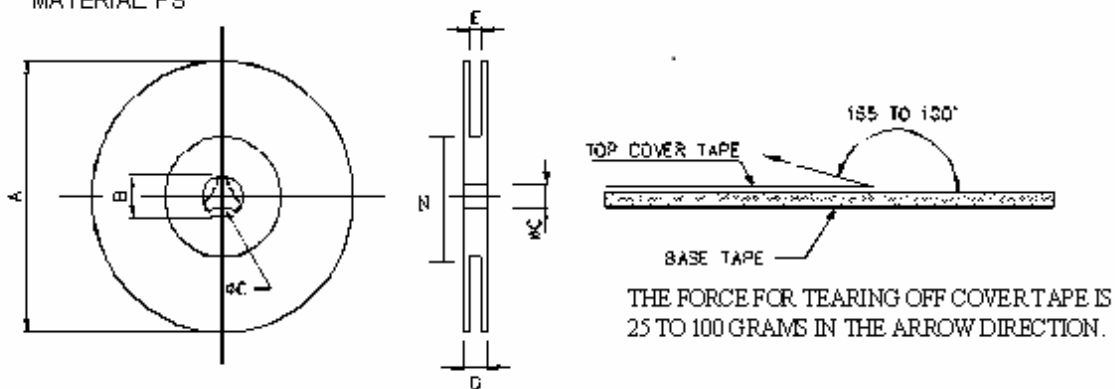
Mechanical Performance /Environmental Test Performance Specifications:

No.	Item	Test condition	Requirements
1	High temp. storage test	Electrical characteristics variation shall not change more 3%	Test conditions : +125℃±2℃ For 48±2Hours
2	Low temp. storage test		Test conditions : -40℃±2℃ For 48±2Hours
3	Temp. cycle test		Test conditions : +125℃±5℃ (30min.)~+25℃±5℃ (2Hours) -40℃±5℃ (30min.) Total test : 10 cycles
4	Humidity test		Temperature : +60℃±2℃ Humidity : 90%±5% Time : 96 hours
5	Thermal shock test		Test conditions: +125℃±5℃ (30min.)~-65℃±5℃ (30min.) Temp change: 2 min. Total : 50 cycles
6	Life test		Test conditions : +70℃±5℃ 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℃ 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℃ 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	± 0.8	+0.5-0.2	MAX	+2.0-0	MIN	±0.05	±0.10	±0.10	±0.10	±0.30

Quantity per reel : 1K pcs