

APPROVAL SHEET



WLPN606045 Series
Shielded SMD Power Inductors

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

Features

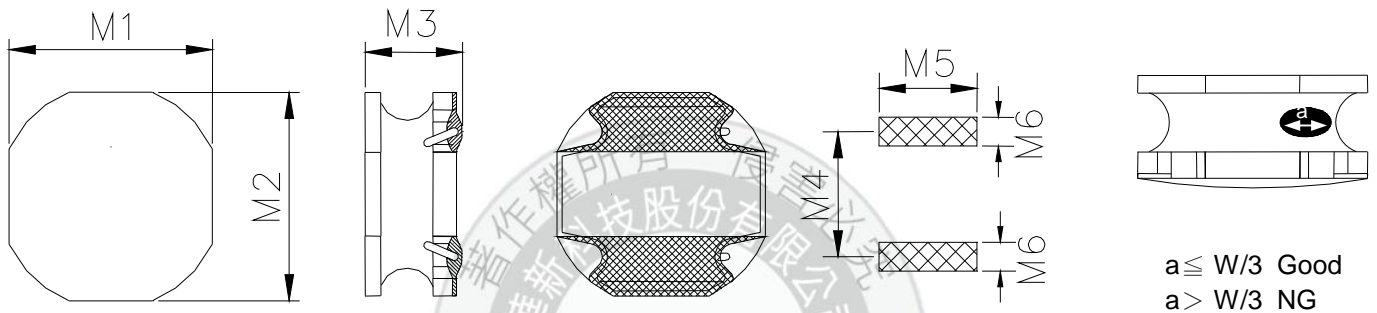
1. Close magnetic loop with magnetic resin shielded.
2. Low profile, High inductance.

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



$a \leq W/3$ Good
 $a > W/3$ NG

ITEM	M1	M2	M3	M4	M5	M6
DIM.	6.0	5.9	4.5	4.7	5.7	1.6
TOL.	±0.2	±0.2	MAX.	-	-	-

Ordering Information

WL	PN	6060	45	N	1R5	L	B
Product Code WL: Inductor	Series Shielded SMD Power Inductors	Dimensions 6.0 * 6.0 mm	Thickness 4.5 mm	Tolerance M: ± 20% N : ± 30%	Value 1R5 = 1.5uH 150 = 15uH. 101=100uH	Packing Code L=13" Reeled (Embossed Tape)	B:STD

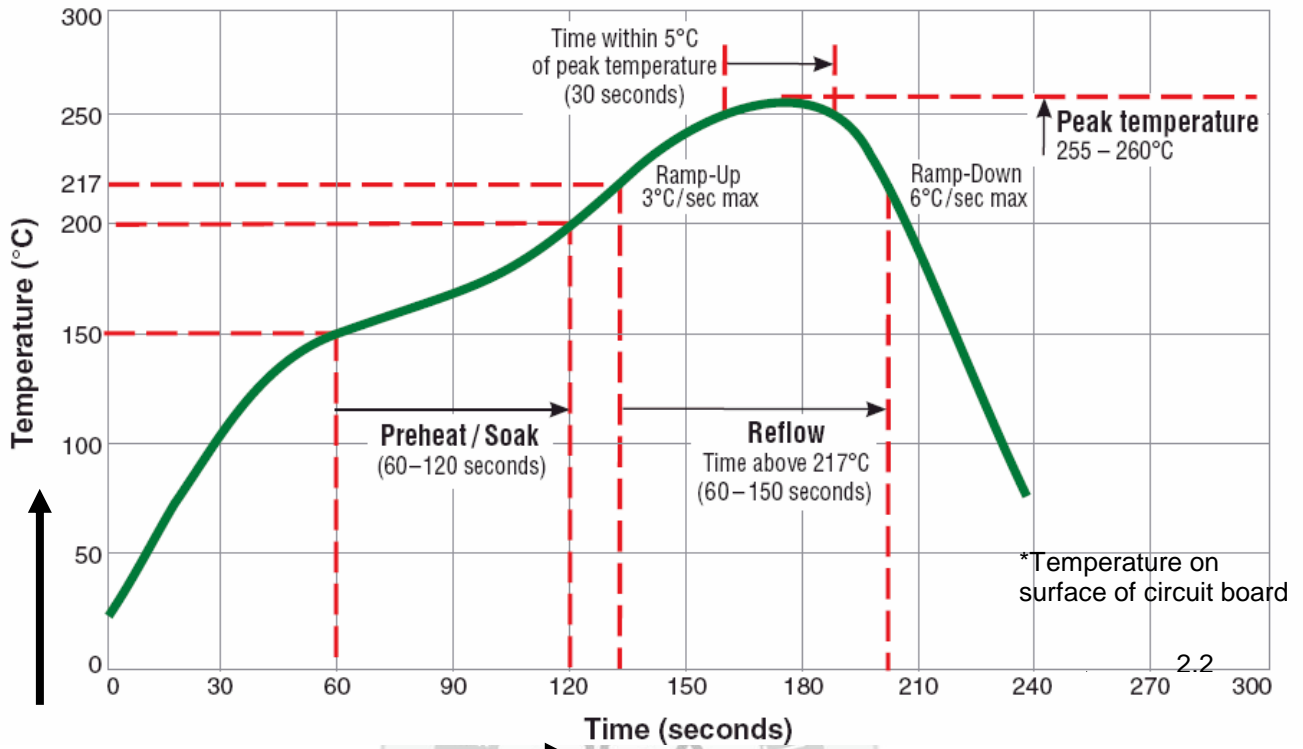
Electrical Characteristics

WLPN606045 Series	MARK	L (uH)	Inductance Tolerance	Test Freq (KHz)1V	DCR (mΩ)	Irms (A)	Isat (A)
WLPN606045□1R0LB	1R0	1.0	N	100	18.2	6.00	8.50
WLPN606045□1R3LB	1R3	1.3	N	100	20.8	5.20	8.00
WLPN606045□1R5LB	1R5	1.5	N	100	23.4	5.00	8.00
WLPN606045□1R8LB	1R8	1.8	N	100	23.4	5.00	7.00
WLPN606045□2R2LB	2R2	2.2	N	100	27.3	4.50	6.00
WLPN606045□2R3LB	2R3	2.3	N	100	27.3	4.50	6.00
WLPN606045□3R0LB	3R0	3.0	N	100	31.2	4.00	5.00
WLPN606045□3R3LB	3R3	3.3	N	100	31.2	4.00	5.00
WLPN606045□4R5LB	4R5	4.5	M	100	40.3	3.70	4.00
WLPN606045□4R7LB	4R7	4.7	M	100	40.3	3.70	4.00
WLPN606045□6R3LB	6R3	6.3	M	100	49.4	3.50	3.80
WLPN606045□6R8LB	6R8	6.8	M	100	49.4	3.50	3.80
WLPN606045□100LB	100	10.0	M	100	61.1	2.80	3.00
WLPN606045□150LB	150	15.0	M	100	100.1	2.30	2.30
WLPN606045□220LB	220	22.0	M	100	149.5	1.70	1.90
WLPN606045□330LB	330	33.0	M	100	188.5	1.50	1.50
WLPN606045□470LB	470	47.0	M	100	286.0	1.30	1.30
WLPN606045□680LB	680	68.0	M	100	429.0	1.00	1.00
WLPN606045□820LB	820	82.0	M	100	533.0	0.90	0.90
WLPN606045□101LB	101	100.0	M	100	650.0	0.80	0.80
WLPN606045□151LB	151	150.0	M	100	580.0	0.80	0.70

1. Test Frequency: 100KHz, 1V
2. Test Equipment:
Inductance: Chroma3302+1320+16502 or equivalent.
SRF:HP-4291B or equivalent.
RDC:CH16502BC or equivalent.
3. Isat:Based on inductance decrease 30% Max.(at 20°C)
4. Irms:Based on temperature increase 40°C Max.(at 20°C)
5. Operating Temperature Range:-25°C to +120°C (Including self-temperature rise).
6. Storage Temp. Range : -40°C to +85°C.
7. MSL : Level 1.

Reflow Profile Chart (Reference):

Typical RoHS Reflow Profile



RELIABILITY PERFORMANCE

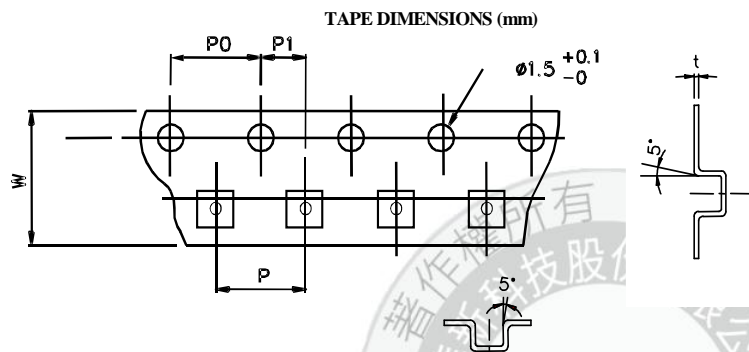
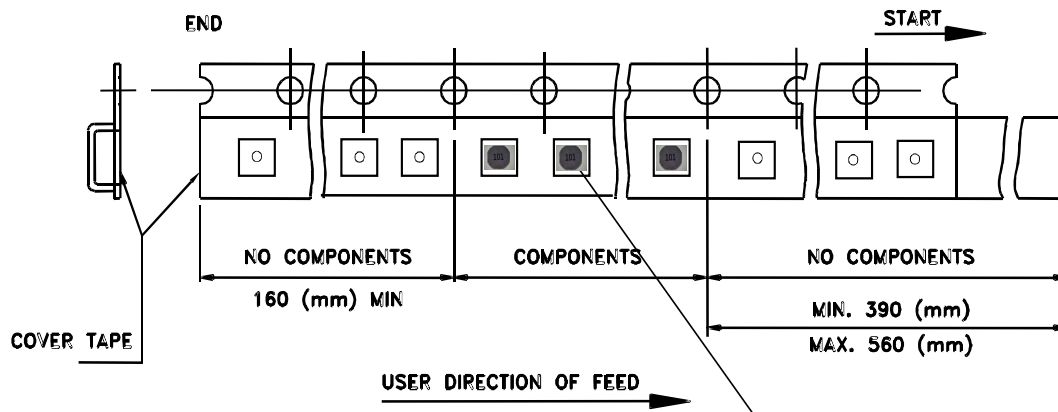
Reliability Experiment For Electrical

Test Item	Test Condition	Standard Source
Humidity Test	+40°C ± 2°C, humidity of 90% ± 5% (total 96 hours).	MIL-STD-202G Method 103B Test Condition B
High Temperature Test	1. Temperature: +125°C ± 2°C 2. Test time: 48 ± 2hrs	IEC 68-2 Test Condition B
Low Temperature Test	1. Temperature: -40°C ± 2°C 2. Test time: 48 ± 2hrs	IEC 68-2 Test Condition A
Thermal Shock	+125°C ± 5°C (30 minutes) ~ -40 ± 5°C (30 minutes), temperature switch time: 5 minutes (total 50 cycles).	MIL-STD-202G Method 107G Test Condition B-2
Life Test	+70°C ± 5°C (250Hours)	MIL-STD-202G Method 108A Test Condition B

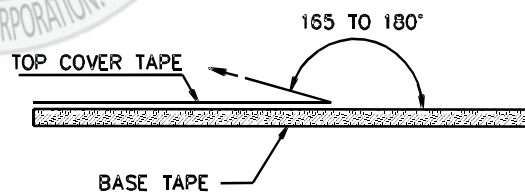
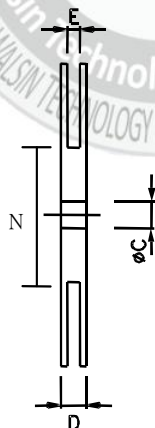
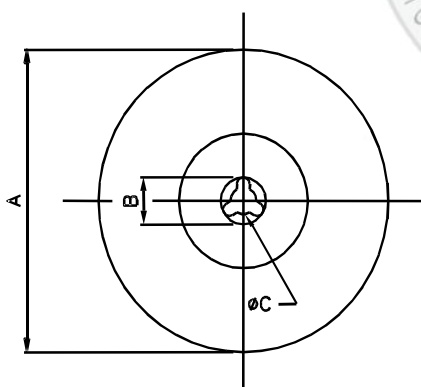
Reliability Experiment For Physical

Test Item	Test Condition	Standard Source
Vibration Test	10-55-10HZ, amplitude: 1.5mm, direction: X, Y, Z axes, each axis 2 hours (total 6 hours).	MIL-STD-202G Method 201A
Solder Heat Resistance Test	IR/convection reflow: Peak Temp 250 ± 5°C for 5Sec in air, Through 2 Cycle. Temperature Ramp: +1~4°C/sec; Above 183°C, must keep 90 s - 120 s	MIL-STD-202G Method 210F Test Condition (Reflow)
Solder Ability Test	Soak in 245 °C solder pot of 3Sec, PAD must have 95% above coverage.	J-STD-003B

Tape & Reel Packaging Dimensions:



CARRIER TAPE REELS
MATERIAL: PS



THE FORCE FOR TEARING OFF COVER TAPE IS 25 TO 100 GRAMS IN THE ARROW DIRECTION.

Product Series	A	B	C	D	E	N	T	P1	P	P0	W
DIM.	330	21.0	13.0	21.5	16.5	100	0.40	2.0	12.0	4.0	16.0
TOL.	±3.0	± 0.8	±0.5	MAX	±0.1	MAX.	±0.1	±0.10	±0.10	±0.10	±0.30

Quantity per reel : 1.5K pcs