

# APPROVAL SHEET

## WLSS428P Series Shielded SMD Power Inductors



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

## Features

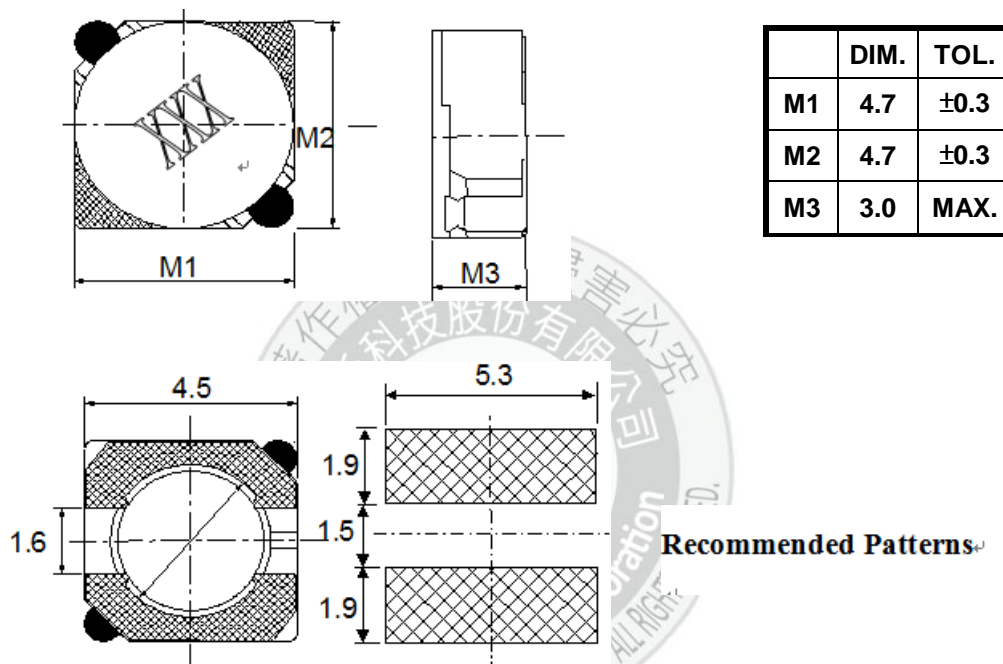
1. Shielded power inductor.
2. Wide inductance range.

## Applications

1. Inductor in DC/DC converter.
2. Use in STB、PDA、Notebook.

## Shape and Dimension

Unit : mm



## Ordering Information

WL	SS	428P	Z0	N	1R2	L	B
<b>Product Code</b>	<b>Series</b>	<b>Dimensions</b>	<b>Series extension</b>	<b>Tolerance</b>	<b>Value</b>	<b>Packing Code</b>	
WL: Inductor	Shielded SMD Power Inductors	4.7 * 4.7 mm	Z0:STD	N: ± 30% M: ± 20%	1R2 = 1.2uH 100 = 10.0uH 101 =100uH	L=13" Reeled (Embossed tape)	B:STD

## Electrical Characteristics

WLSS428P Series	Marking	L (uH)	Inductance Tolerance	Test Freq (KHz)	DCR (mΩ) MAX.	Rated Current (A)
WLSS428PZ0N1R2LB	1R2	1.2	±30%	100	23.6	2.56
WLSS428PZ0N1R8LB	1R8	1.8	±30%	100	27.5	2.2
WLSS428PZ0N2R2LB	2R2	2.2	±30%	100	31.3	2.04
WLSS428PZ0N2R7LB	2R7	2.7	±30%	100	43.3	1.6
WLSS428PZ0N3R3LB	3R3	3.3	±30%	100	49.2	1.57
WLSS428PZ0N3R9LB	3R9	3.9	±30%	100	64.8	1.44
WLSS428PZ0N4R7LB	4R7	4.7	±30%	100	72	1.32
WLSS428PZ0N5R6LB	5R6	5.6	±30%	100	100.9	1.17
WLSS428PZ0N6R8LB	6R8	6.8	±30%	100	108.9	1.12
WLSS428PZ0N8R2LB	8R2	8.2	±30%	100	117.5	1.04
WLSS428PZ0N100LB	100	10	±30%	100	128.3	1
WLSS428PZ0N120LB	120	12	±30%	100	131.6	0.84
WLSS428PZ0N150LB	150	15	±30%	100	149	0.76
WLSS428PZ0N180LB	180	18	±30%	100	166	0.72
WLSS428PZ0N220LB	220	22	±30%	100	235	0.7
WLSS428PZ0N270LB	270	27	±30%	100	261	0.58
WLSS428PZ0N330LB	330	33	±30%	100	331.3	0.56
WLSS428PZ0N390LB	390	39	±30%	100	383.7	0.5
WLSS428PZ0N470LB	470	47	±30%	100	587	0.48
WLSS428PZ0N560LB	560	56	±30%	100	624.5	0.41
WLSS428PZ0N680LB	680	68	±30%	100	699	0.35
WLSS428PZ0N820LB	820	82	±30%	100	914.8	0.32
WLSS428PZ0N101LB	101	100	±30%	100	1020	0.29
WLSS428PZ0N121LB	121	120	±30%	100	1270	0.27
WLSS428PZ0N151LB	151	150	±30%	100	1350	0.24
WLSS428PZ0N181LB	181	180	±30%	100	1540	0.22

Tolerance : N:±30%

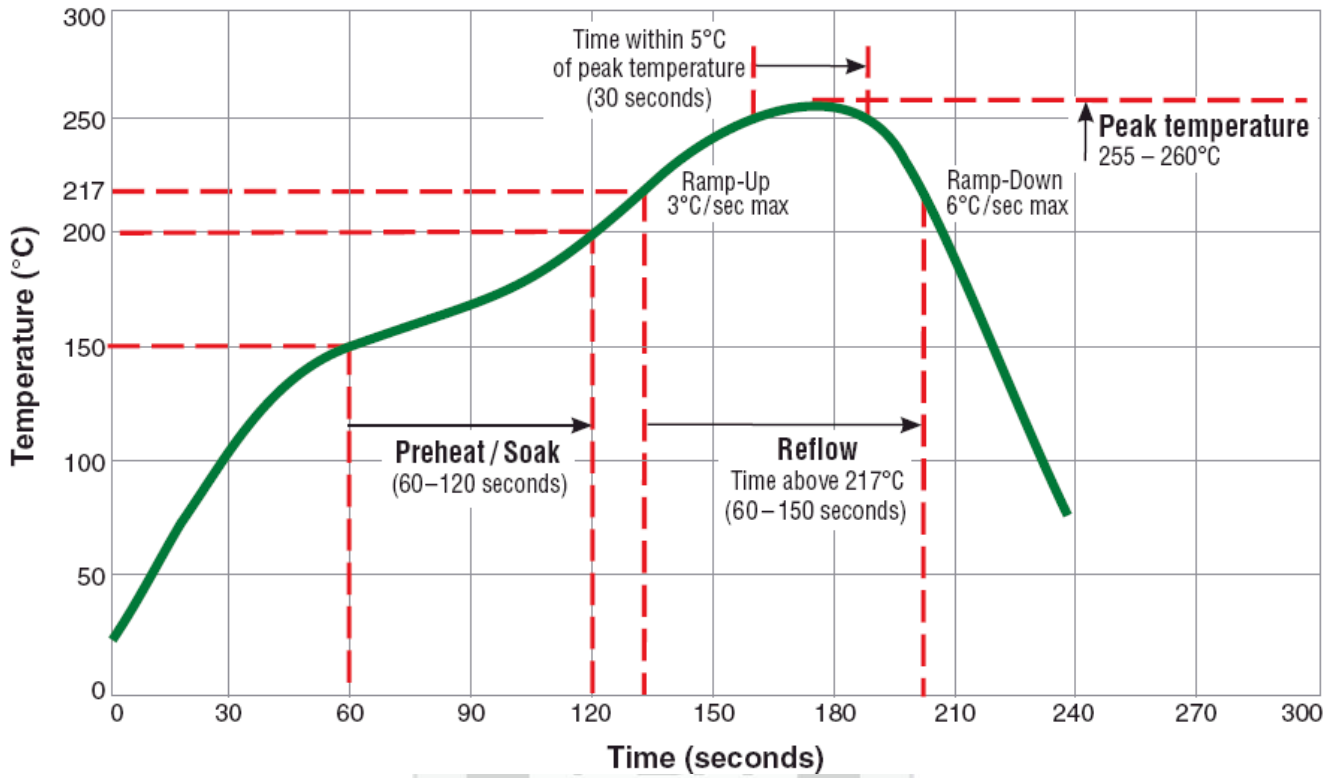
※Inductance drops no more than 35 % of initial value at rated current ,temperature rises  $\Delta t < 40^{\circ}\text{C}$ .

※Operating Temp:  $-25^{\circ}\text{C}$  to  $+105^{\circ}\text{C}$ .

※MSL : LEVEL 1

## TYPICAL RoHS REFLOW PROFILE

### Typical RoHS Reflow Profile



## RELIABILITY PERFORMANCE

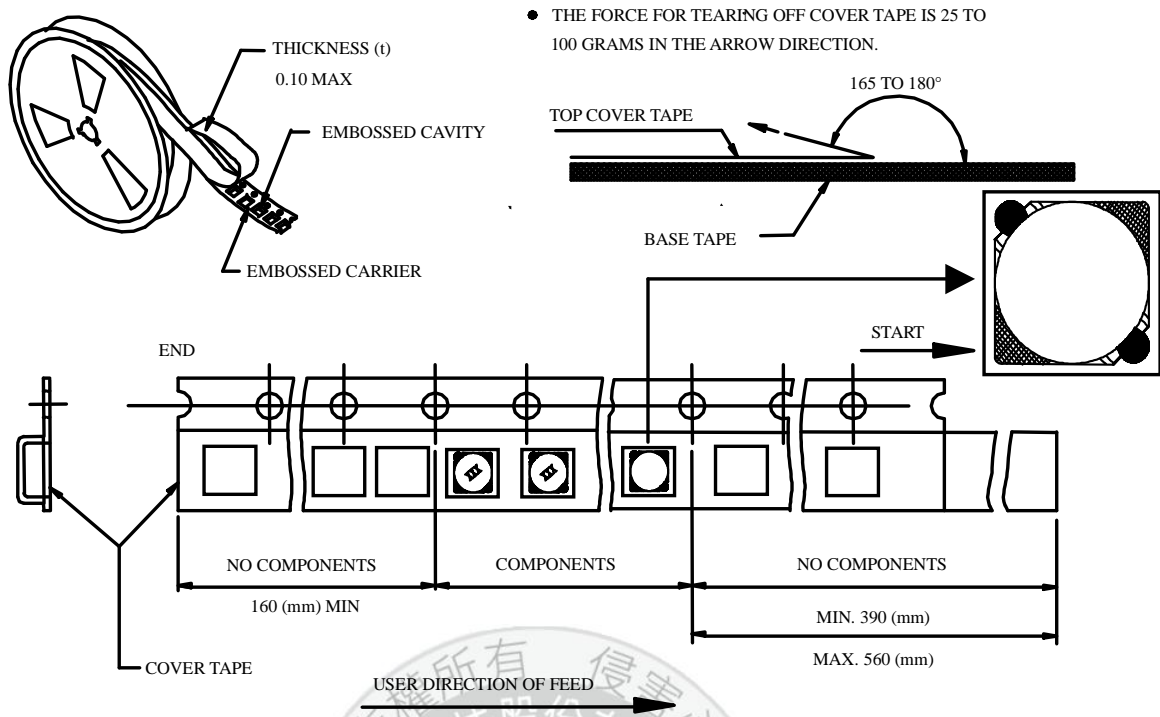
### Reliability Experiment For Electrical

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

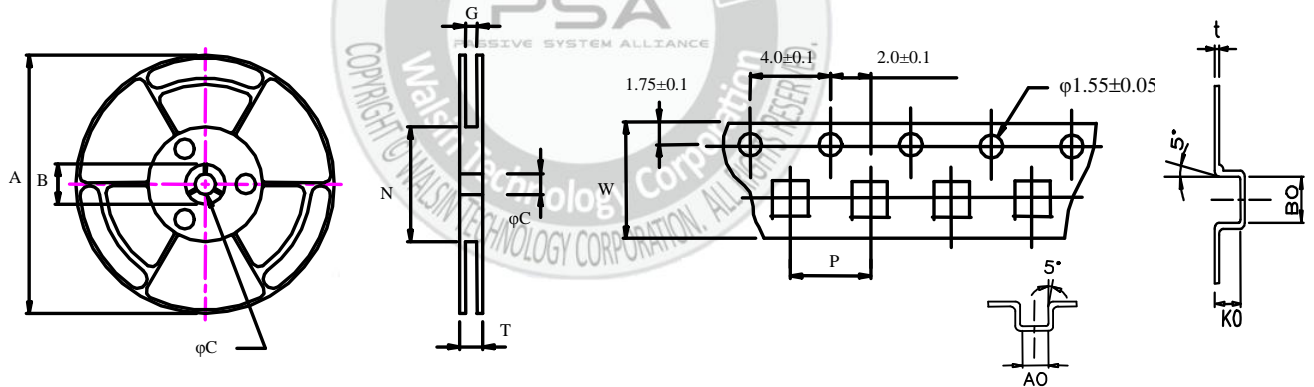
### Tape & Reel Packaging Dimensions:



#### ■ CARRIER TAPE REELS (mm)

MATERIAL: PLASTIC

#### ■ DIMENSIONS OF CARRIER TAPE (mm)



Unit : mm

	A	B	C	G	T	N	P	t	W
DIM.	340	21.0	13.0	16.4	22.4	60.0	12.0	0.35	16
TOL.	MAX	±0.8	±0.5	±0.2	MAX	MIN	±0.3	±0.5	±0.3

Quantity per reel : 1.5K pcs