

# APPROVAL SHEET



## **WLSS316P Series Shielded SMD Power Inductors**

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

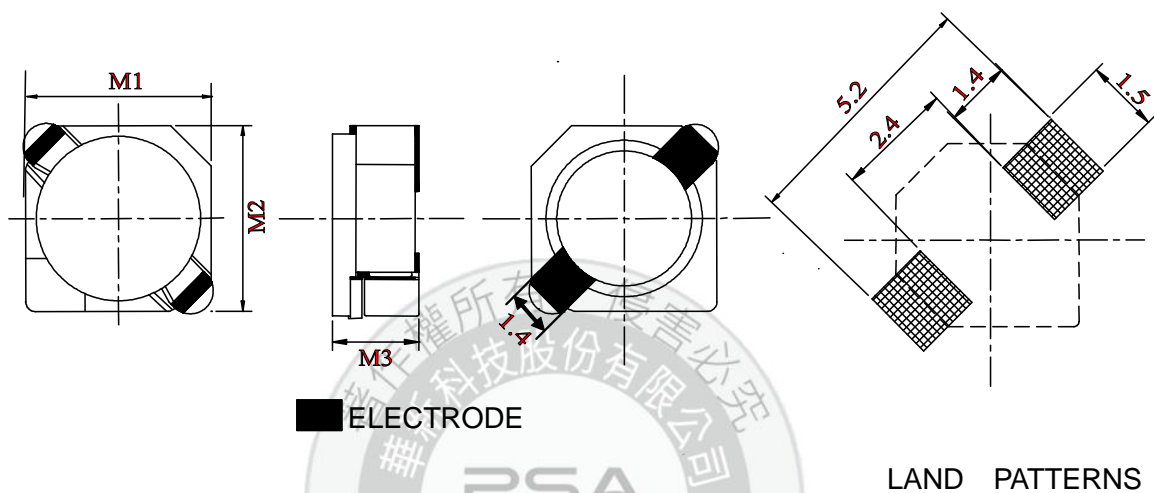
## Features

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

## Applications

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

## Shape and Dimension



## Ordering Information

WL	SS	0316P	Z0	N	1R5	P	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	3.8 * 3.8 mm	Z0:STD	N: ± 30%	1R5 = 1.5uH 100 = 10.0uH	P=7" Reeled (Embossed tape)	B:STD

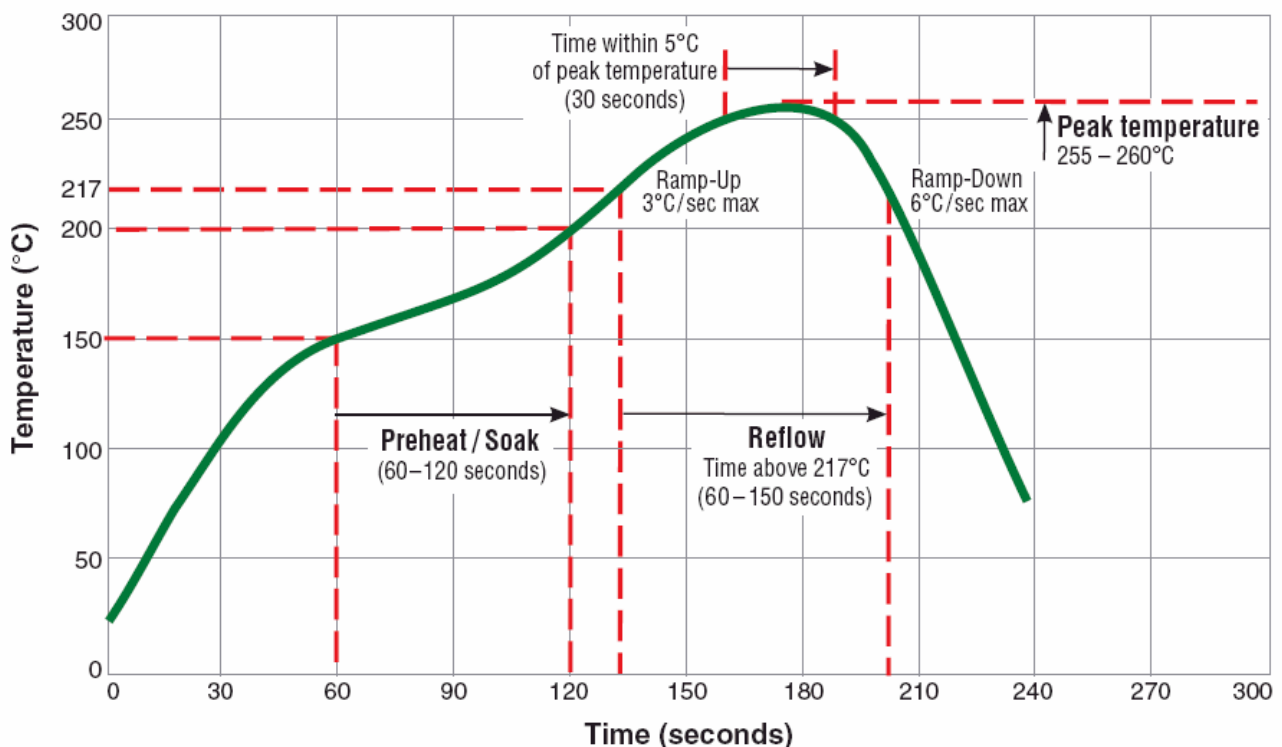
## Electrical Characteristics

WLSS316P Series	Marking	L (uH)	Inductance Tolerance	Test Freq (KHz)	DCR (mΩ) MAX.	Rated Current (mA)
WLSS316PZ0N1R5PB	1R5	1.5	± 30%	100	52	1550
WLSS316PZ0N2R2PB	2R2	2.2	± 30%	100	72	1200
WLSS316PZ0N3R3PB	3R3	3.3	± 30%	100	85	1100
WLSS316PZ0N4R7PB	4R7	4.7	± 30%	100	105	900
WLSS316PZ0N6R8PB	6R8	6.8	± 30%	100	170	730
WLSS316PZ0N100PB	100	10.0	± 30%	100	210	550
WLSS316PZ0N150PB	150	15.0	± 30%	100	295	450
WLSS316PZ0N220PB	220	22.0	± 30%	100	430	400
WLSS316PZ0N330PB	330	33.0	± 30%	100	675	320

- a. Tolerance : N:±30%
  - b. Operating Temp : -25°C to +105°C.
  - c. Inductance measured using the HP4284A LCR meter, CHROMA1320 & 3302 & 16502
  - d. DCR measured using the 502BC milli-ohm meter.
  - e. Inductance drops no more than 10% of initial value at rated current, temperature rises  $\Delta t < 40^{\circ}\text{C}$ .
- ※MSL : LEVEL 1

## TYPICAL RoHS REFLOW PROFILE

### Typical RoHS Reflow Profile



## RELIABILITY PERFORMANCE

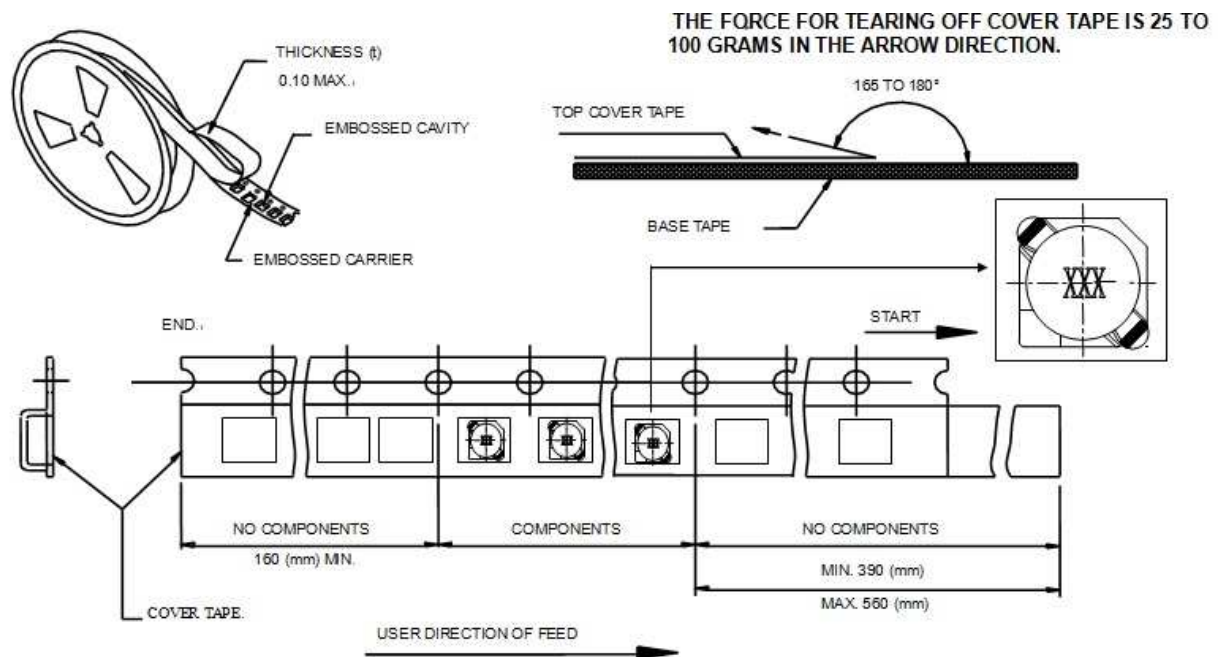
### Reliability Experiment For Electrical

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

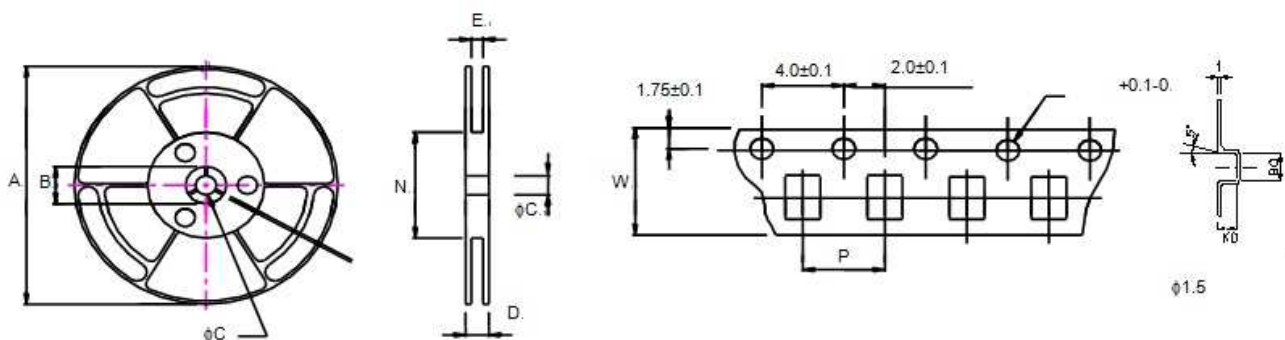
## Tape & Reel Packaging Dimensions:



### CARRIER TAPE REELS (mm)

MATERIAL: PLASTIC.

### DIMENSIONS OF CARRIER TAPE (mm)



	A	B	C	E	N	P	D	W	t	A0	B0	K0
DIM.	180	20.2	13.0	12.5	50	8.0	16.5	12.0	0.30	4.1	4.1	2.2
TOL.	MAX	MIN	$\pm 0.5$	+1 -0.5	MIN	$\pm 0.1$	MAX	$\pm 0.3$	$\pm 0.05$	$\pm 0.1$	$\pm 0.1$	$\pm 0.1$

Quantity per reel : 1K pcs