

# APPROVAL SHEET



**WLSS127P Series**  
**Shielded SMD Power Inductors**

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

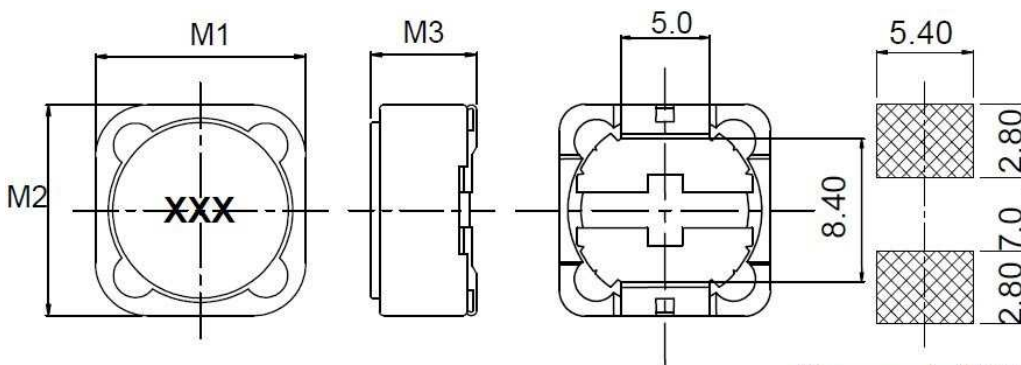
## Features

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

	DIM.	TOL.
M1	12.0	±0.3
M2	12.0	±0.3
M3	8.0	MAX.

Recommended Patterns

## Ordering Information

WL	SS	127P	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	12 * 12 mm	Z0:STD	N: SPEC M: ± 20%	1R2 = 1.2uH 100 = 10.0uH 101=100uH 102=1000uH	L=13" Reeled (Embossed tape)	B:STD

### Electrical Characteristics

WLSS127P Series	Marking	L (uH)	Inductance Tolerance	Test Freq (KHz)	DCR (Ω) MAX.	Rated Current (A)
WLSS127PZ0N1R2LB	1R2	1.2	+40%-20%	100	0.007	9.8
WLSS127PZ0N2R4LB	2R4	2.4	+40%-20%	100	0.0115	8
WLSS127PZ0N3R5LB	3R5	3.5	+40%-20%	100	0.0135	7.5
WLSS127PZ0N4R7LB	4R7	4.7	+40%-20%	100	0.0158	6.8
WLSS127PZ0N6R1LB	6R1	6.1	+40%-20%	100	0.0176	6.6
WLSS127PZ0N7R6LB	7R6	7.6	+40%-20%	100	0.02	5.9
WLSS127PZ0M100LB	100	10	±20%	1	0.0216	5.4
WLSS127PZ0M120LB	120	12	±20%	1	0.0243	4.9
WLSS127PZ0M150LB	150	15	±20%	1	0.027	4.5
WLSS127PZ0M180LB	180	18	±20%	1	0.0392	3.9
WLSS127PZ0M220LB	220	22	±20%	1	0.0432	3.6
WLSS127PZ0M270LB	270	27	±20%	1	0.0459	3.4
WLSS127PZ0M330LB	330	33	±20%	1	0.0648	3
WLSS127PZ0M390LB	390	39	±20%	1	0.0729	2.75
WLSS127PZ0M470LB	470	47	±20%	1	0.1	2.5
WLSS127PZ0M560LB	560	56	±20%	1	0.11	2.35
WLSS127PZ0M680LB	680	68	±20%	1	0.14	2.1
WLSS127PZ0M820LB	820	82	±20%	1	0.16	1.95
WLSS127PZ0M101LB	101	100	±20%	1	0.22	1.7
WLSS127PZ0M121LB	121	120	±20%	1	0.25	1.6
WLSS127PZ0M151LB	151	150	±20%	1	0.28	1.42
WLSS127PZ0M181LB	181	180	±20%	1	0.35	1.3
WLSS127PZ0M221LB	221	220	±20%	1	0.39	1.16
WLSS127PZ0M271LB	271	270	±20%	1	0.56	1.06
WLSS127PZ0M331LB	331	330	±20%	1	0.64	0.95
WLSS127PZ0M391LB	391	390	±20%	1	0.7	0.88
WLSS127PZ0M471LB	471	470	±20%	1	0.98	0.79
WLSS127PZ0M561LB	561	560	±20%	1	1.07	0.73
WLSS127PZ0M681LB	681	680	±20%	1	1.46	0.67
WLSS127PZ0M821LB	821	820	±20%	1	1.64	0.6
WLSS127PZ0M102LB	102	1000	±20%	1	1.82	0.55

a. Tolerance : N:SPEC ,M : ±20%

b. Operating Temp : -25°C to +105°C.

c. Inductance measured using the HP4284A LCR meter, CHROMA1320 & 3302 & 16502

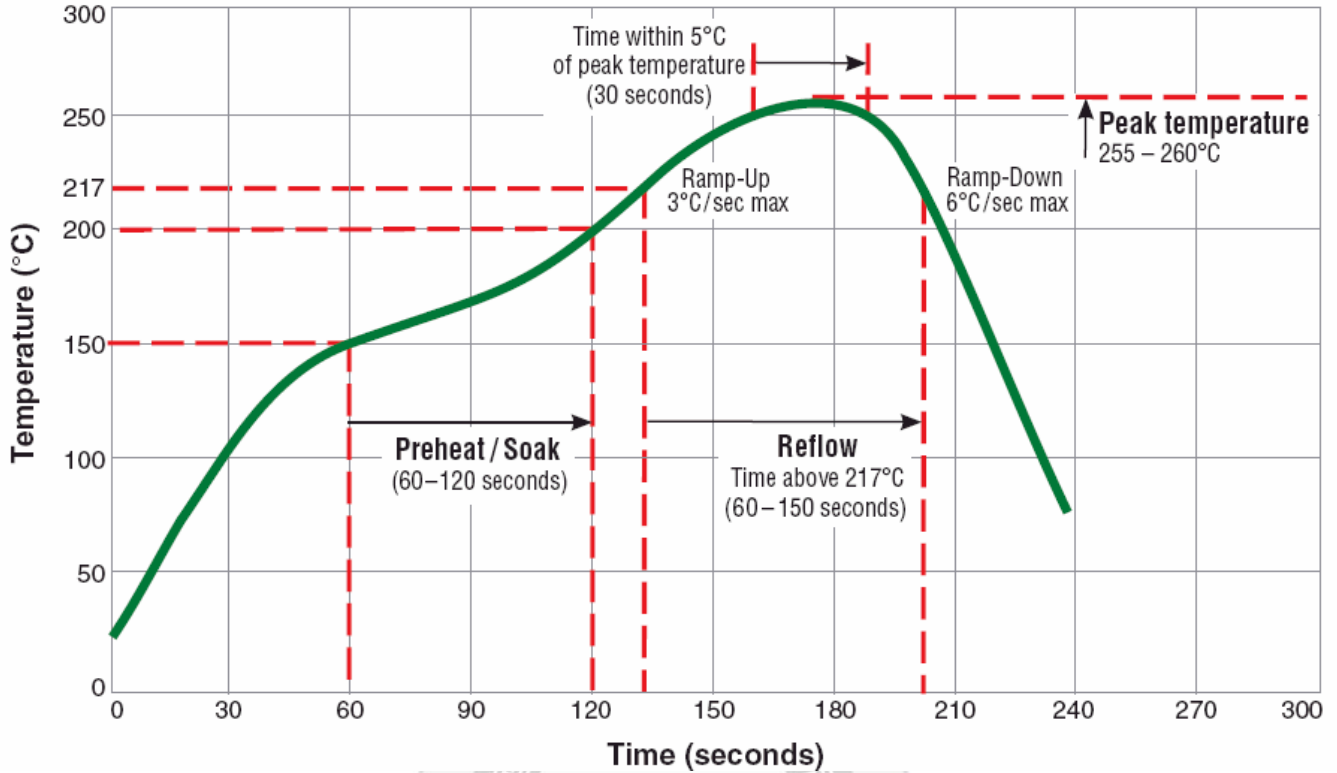
d. DCR measured using the 502BC milli-ohm meter.

e. Inductance drops no more than 25% 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

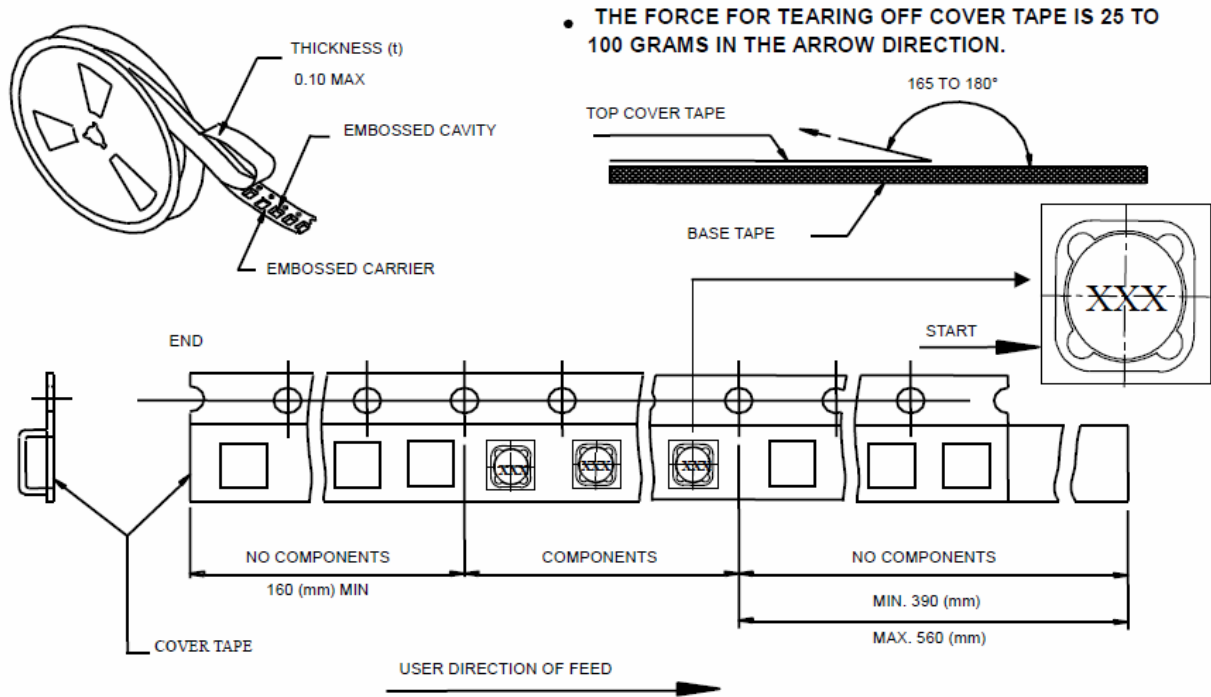
### Reliability Experiment For Electrical

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

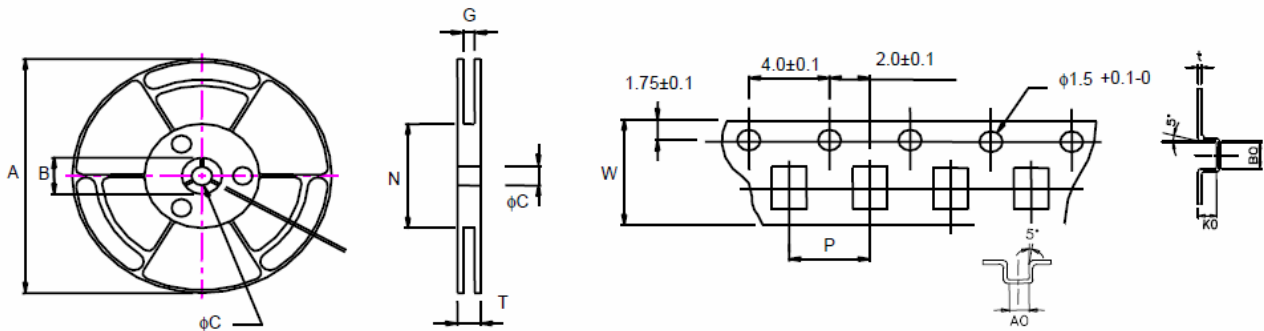
### Tape & Reel Packaging Dimensions:



■ CARRIER TAPE REELS (mm)

MATERIAL: PLASTIC

■ DIMENSIONS OF CARRIER TAPE (mm)



Unit : mm

	A	B	C	G	N	P	T	W	t	A0	B0	K0
DIM.	340	20.2	13.0	24.5	100	16.0	30.5	24.0	0.35	340	20.2	13.0
TOL.	MAX	MIN	±0.5	+1.5-0	±0.3	±1.0	MAX	±0.3	±0.05	MAX	MIN	±0.5

Quantity per reel : 500 pcs