

# APPROVAL SHEET

## WLPMA0A040\*LC Series SMD Molded Power Inductor



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

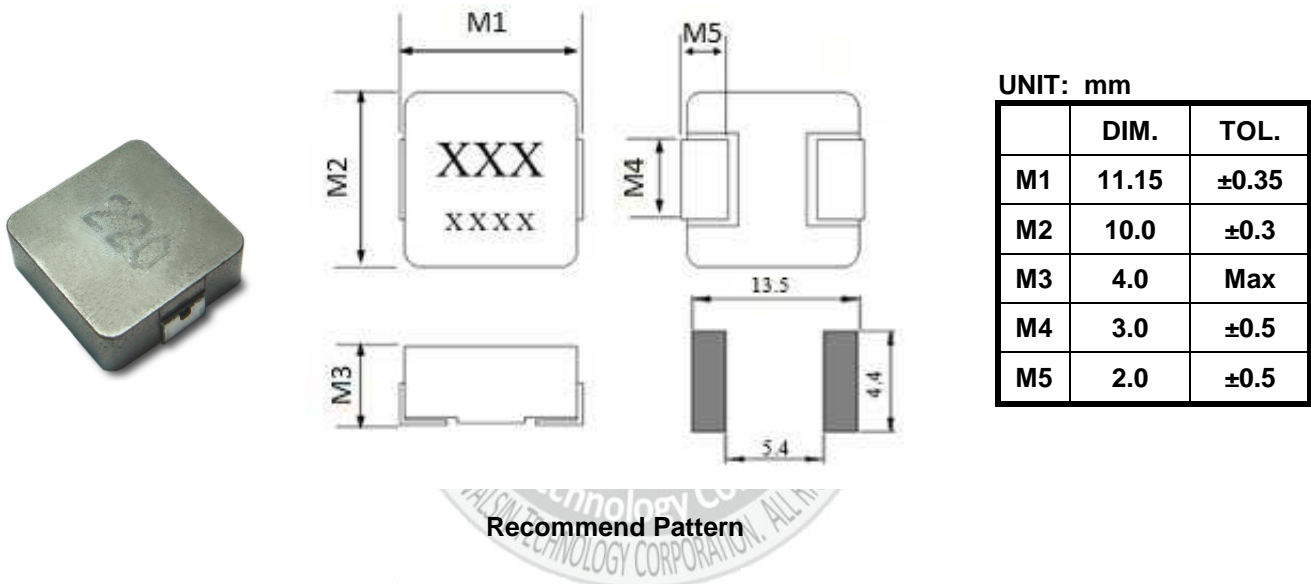
### Features

1. Shielded construction.
2. Ultra low buzz noise.
3. Low DCR/ $\mu$ H.
4. Handles high transient current spikes without saturation.
5. Encapsulated body offers improved environmental protection and moisture resistance.
6. Higher dielectric withstanding voltage.
7. Corrosion resistant package.
8. RoHS Compliance.

### Applications

1. PDA/Notebook/Desktop/Server applications high current and low profile power supplier.
2. High current POL converters.
3. Battery powered devices.

### Shape and Dimension

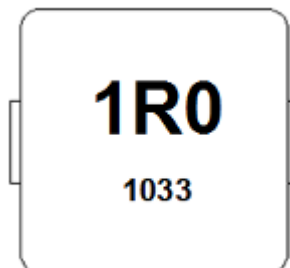


### MARKING AND DATE CODE

Marking ex:1.0uH  $\rightarrow$  1R0

Date code

XX XX  $\rightarrow$  year and weekly ex:1033



## Ordering Information

WL	PM	A0A0	40	M	R22	L	C
<b>Product Code</b>	<b>Series</b>	<b>Dimensions</b>	<b>Thickness</b>	<b>Tolerance</b>	<b>Value</b>	<b>Packing Code</b>	
WL: Inductor	SMD Molded power inductor.	11.15 * 10mm	3.8mm	M: ± 20%	R22=0.22uH 2R2=2.2uH 220=22.0uH	L=13" Reeled (Embossed tape)	C:

## Electrical Characteristics

WLPMA0A040\*LC series

Walsin Part Number	L(uH)	Tolerance	Measuring Frequency (kHz),1V	RDC Maximum (mΩ)		Rated Current Typical (A)	I sat Typical (A)
				TYP.	MAX.		
WLPMA0A040MR22LC	0.22	M	100	0.8	1	30	50
WLPMA0A040MR36LC	0.36	M	100	1.1	1.2	34	40
WLPMA0A040MR47LC	0.47	M	100	1.3	1.55	25	35
WLPMA0A040MR56LC	0.56	M	100	1.6	1.8	25	32
WLPMA0A040MR68LC	0.68	M	100	2.4	2.7	22	30
WLPMA0A040M1R0LC	1.0	M	100	3	3.3	18	28
WLPMA0A040M1R5LC	1.5	M	100	3.8	4.2	16	21
WLPMA0A040M2R2LC	2.2	M	100	6.7	7	12	18
WLPMA0A040M3R3LC	3.3	M	100	10.8	11.8	10	16
WLPMA0A040M4R7LC	4.7	M	100	17	20	8.5	15
WLPMA0A040M6R8LC	6.8	M	100	22.5	25	6.5	9
WLPMA0A040M8R2LC	8.2	M	100	26.0	29.0	7.0	9.0
WLPMA0A040M100LC	10.0	M	100	27.0	30.0	7.5	8.5
WLPMA0A040M150LC	15.0	M	100	40.0	45.0	6.25	7.0
WLPMA0A040M220LC	22.0	M	100	60.0	66.0	5.0	5.5
WLPMA0A040M470LC	47.0	M	100	130.0	145.0	3.3	3.5

TEST INSTRUMENT: CHROMA 16502 \ Zentech1320+Zentech3305

- (1). Test Freq : 100KHz , 1V
- (2). All test data is referenced to 25°C ambient.
- (3). Operating Temperature Range -55°C to +125°C.
- (4). Rated Current: DC current(A)that will cause an approximate  $\Delta T$  of 40°C.
- (5). I sat: DC current(A)that will cause Lo to drop approximately 30%.
- (6). The part temperature(ambient +temp rise)should not exceed 125°C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature Part temperature should be verified

## RELIABILITY PERFORMANCE

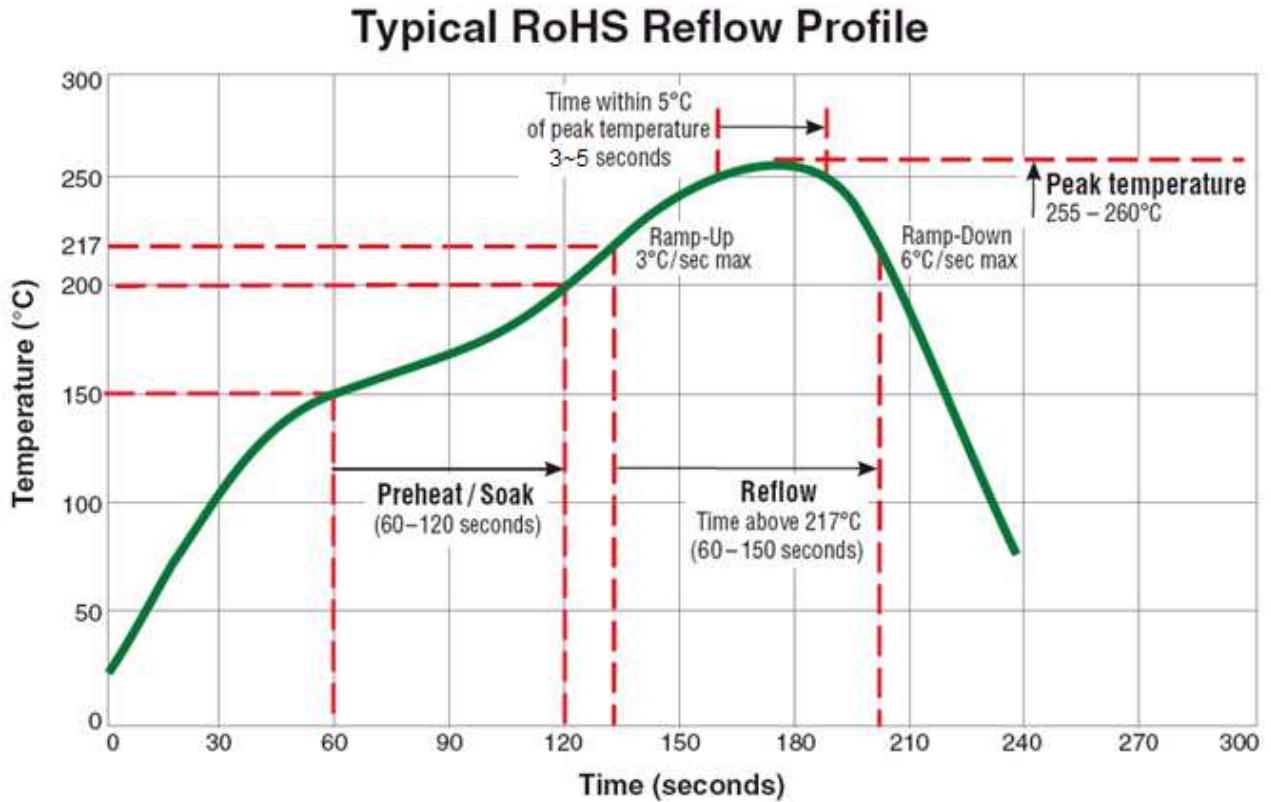
### Reliability Experiment For Electrical

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

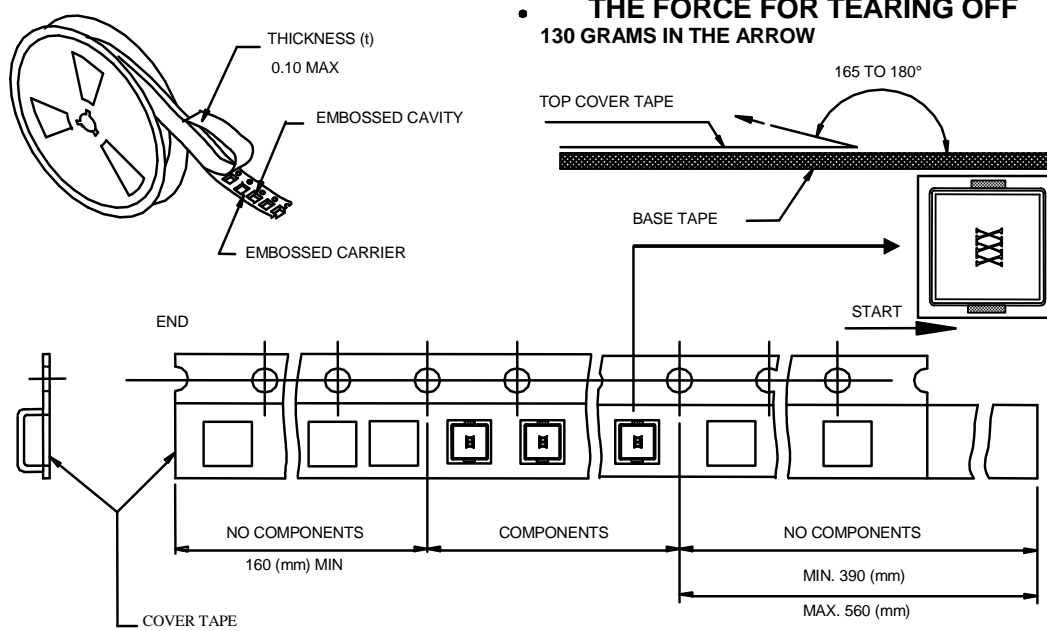
### Reliability Experiment For Physical

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

## TYPICAL RoHS REFLOW PROFILE

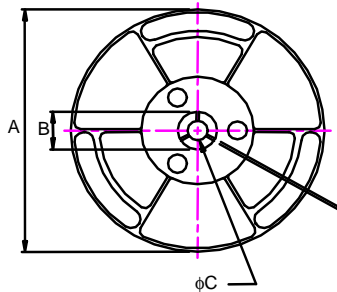


## Packaging

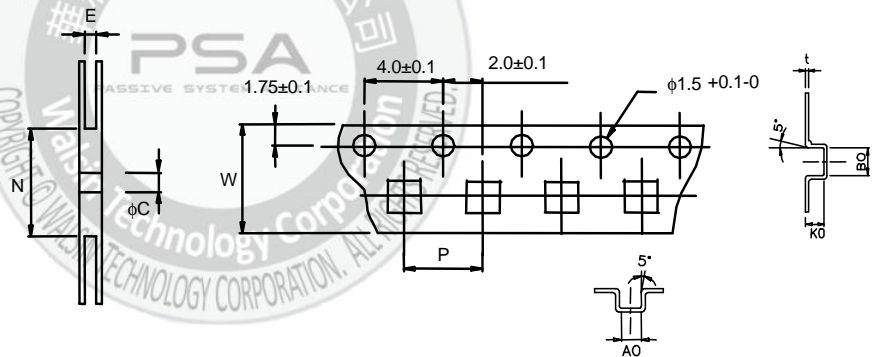


### ■ CARRIER TAPE REELS (mm)

MATERIAL: PLASTIC



### ■ DIMENSIONS OF CARRIER TAPE (mm)



※ 10 sprocket hole pitch cumulative tolerance  $\pm 0.20$

UNIT : mm

	A	B	C	E	N	P	W	t	A0	B0	K0
DIM.	330	25.0	13.0	24.6	100	16.0	24.0	0.4	10.6	11.7	4.25
TOL.	$\pm 0.2$	$\pm 0.5$	$\pm 0.5$	$\pm 0.5$	MIN	$\pm 0.1$	$\pm 0.3$	$\pm 0.05$	$\pm 0.1$	$\pm 0.1$	$\pm 0.1$

Quantity per reel : 500 pcs