

# APPROVAL SHEET

## **WLPM706630\*LC Series SMD Molded Power Inductors**

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

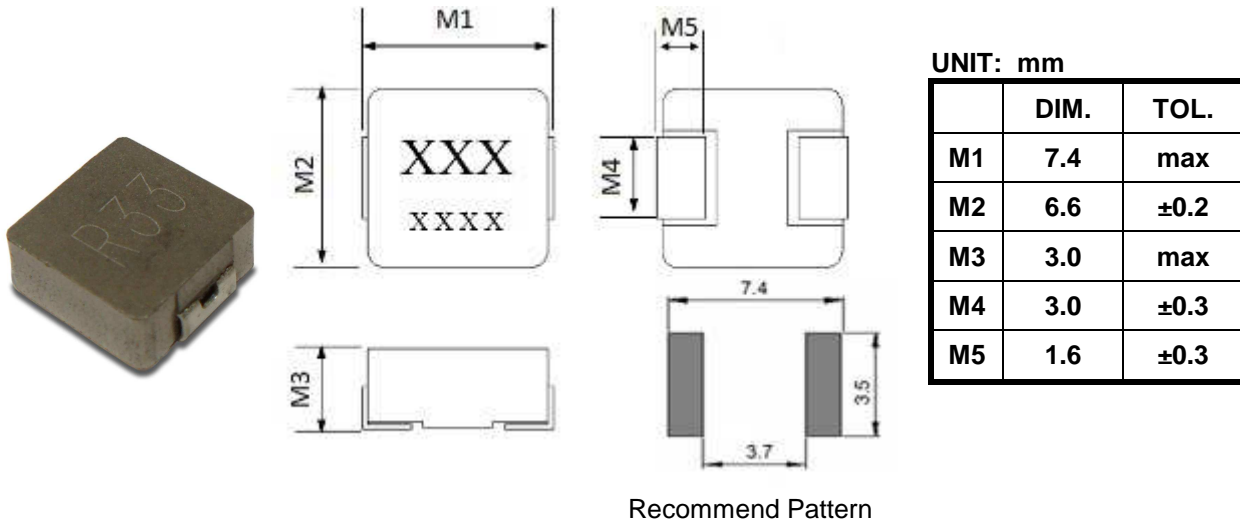
**Features**

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**

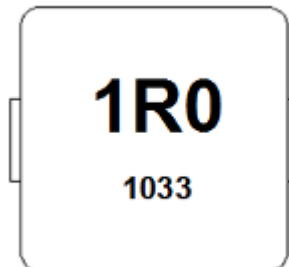


**MARKING AND DATE CODE**

Marking ex:1.0uH  $\rightarrow$  1R0

Date code

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



### Ordering Information

WL	PM	7066	30	M	R22	L	C
Product Code	Series	Dimensions	Thickness	Tolerance	Value	Packing Code	C:
WL: Inductor	SMD Molded power inductor.	7.0 * 6.6mm	2.8mm	M: ± 20%	R22=0.22uH 1R0=1.0uH 100=10uH	L=13" Reeled (Embossed tape)	C:

### Electrical Characteristics

#### WLPM706630\*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.		
WLPM706630MR15LC	0.15	M	100	1.9	2.5	26.0	52.0
WLPM706630MR22LC	0.22	M	100	2.5	2.8	23.0	40.0
WLPM706630MR24LC	0.24	M	100	2.5	2.8	23.0	40.0
WLPM706630MR33LC	0.33	M	100	3.5	3.9	20.0	30.0
WLPM706630MR47LC	0.47	M	100	4.0	4.2	17.5	26.0
WLPM706630MR56LC	0.56	M	100	4.7	5.0	16.5	25.5
WLPM706630MR68LC	0.68	M	100	5.0	5.5	15.5	25.0
WLPM706630MR82LC	0.82	M	100	6.7	8.0	13.0	20.0
WLPM706630M1R0LC	1.0	M	100	9.0	10.0	11.0	20.0
WLPM706630M1R5LC	1.5	M	100	14.0	15.0	9.0	16.0
WLPM706630M2R2LC	2.2	M	100	17.0	20.0	8.0	12.0
WLPM706630M3R3LC	3.3	M	100	28.0	30.0	6.0	10.0
WLPM706630M4R7LC	4.7	M	100	37.0	40.0	5.5	7.0
WLPM706630M5R6LC	5.6	M	100	40.0	44.0	5.5	6.0
WLPM706630M6R8LC	6.8	M	100	54.0	60.0	4.5	6.5
WLPM706630M8R2LC	8.2	M	100	54.0	60.0	4.5	6.0
WLPM706630M100LC	10.0	M	100	62.0	68.0	4.0	5.5
WLPM706630M150LC	15.0	M	100	110.0	125.0	3.5	3.0
WLPM706630M220LC	22.0	M	100	165.0	190.0	2.0	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

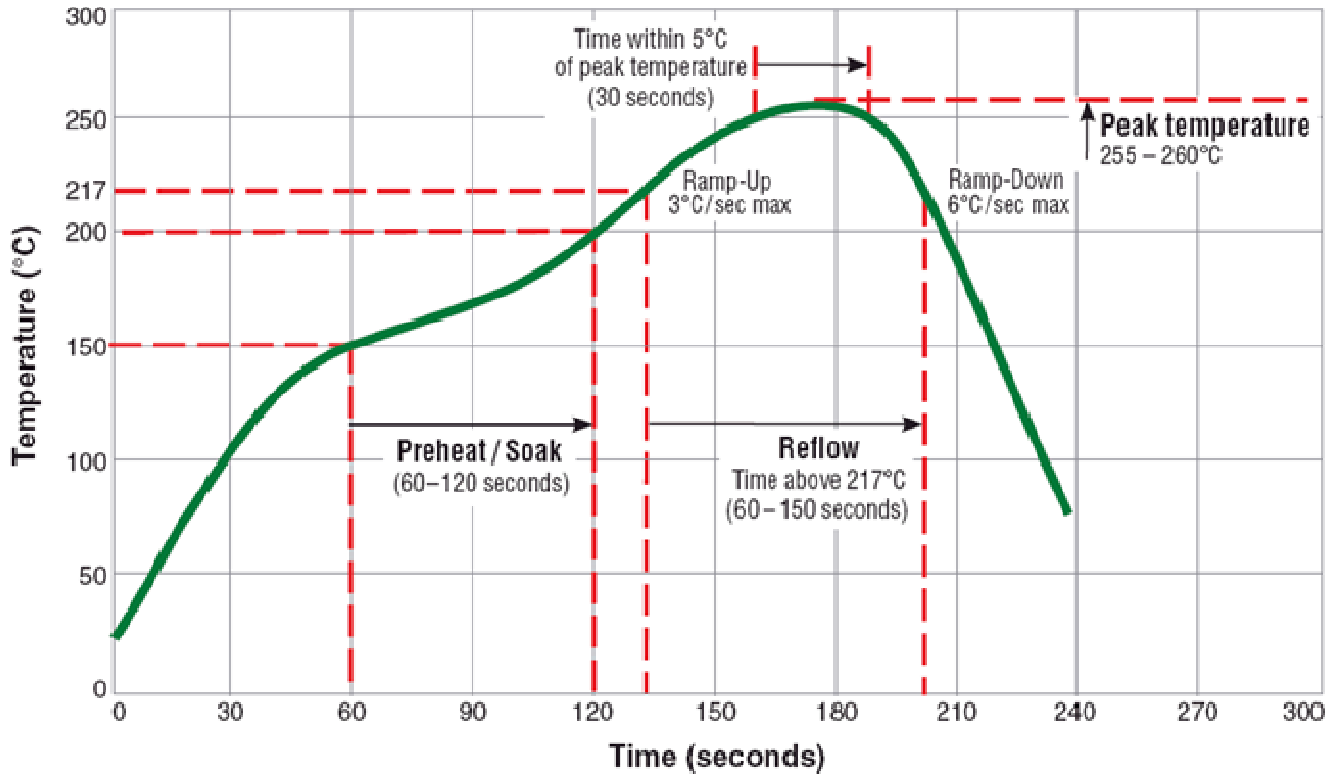
Test Item	Test Condition	Standard Source
Humidity Test	+40°C ± 2°C, humidity of 90% ± 5% (total 96 hours).	MIL-STD-202G Method 103B Test Condition B
High Temperature Test	1. Temperature: +125°C ± 2°C 2. Test time: 48 ± 2hrs	IEC 68-2 Test Condition B
Low Temperature Test	1. Temperature: -40°C ± 2°C 2. 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

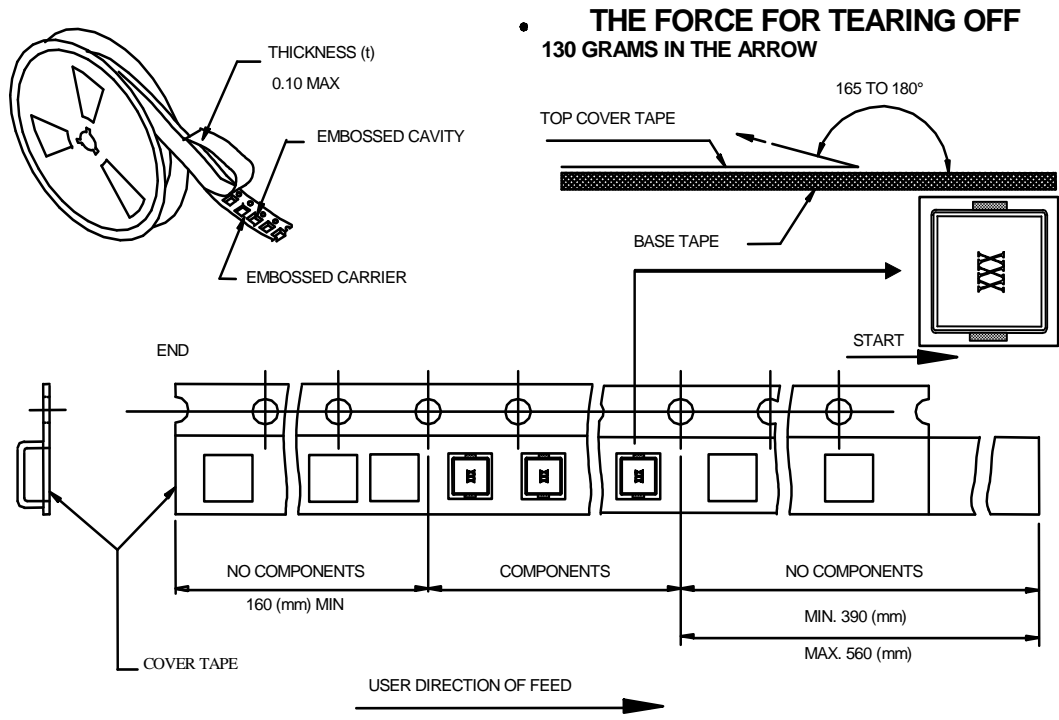
Test Item	Test Condition	Standard Source
Vibration Test	10-55-10HZ, amplitude: 1.5mm, direction: X, Y, Z axes, each axis 2 hours (total 6 hours).	MIL-STD-202G Method 201A
Solder Heat Resistance Test	IR/convection reflow: Peak Temp 250 ± 5°C for 5Sec in air, Through 2 Cycle. Temperature Ramp: +1 ~ 4°C/sec; 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**

**Typical RoHS Reflow Profile**



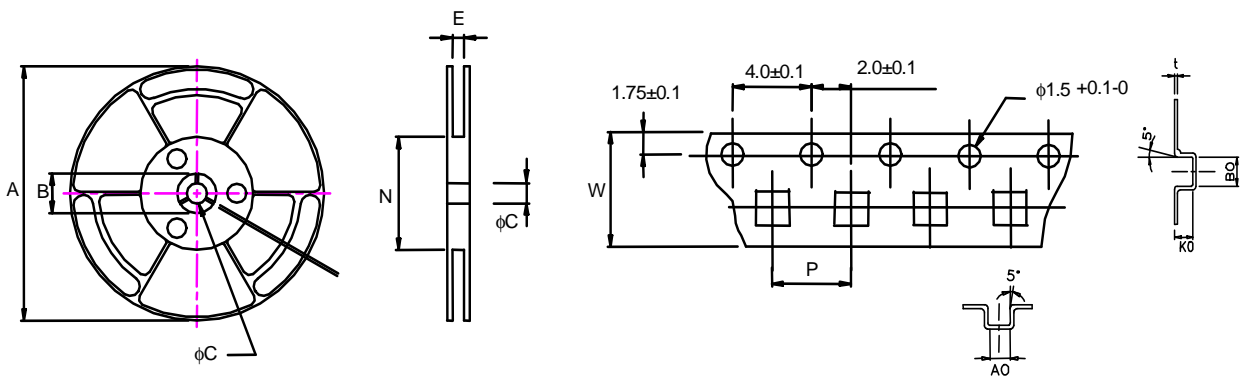
**Packaging**



**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	16.6	100	12.0	16.0	0.4	6.9	7.6	3.4
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 : 1K pcs