APPROVAL SHEET

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WLPM444220*LC Series
SMD Molded Power Inductors

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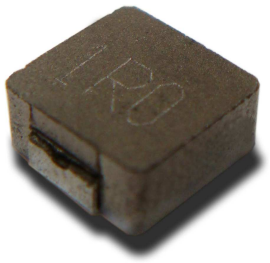
Features

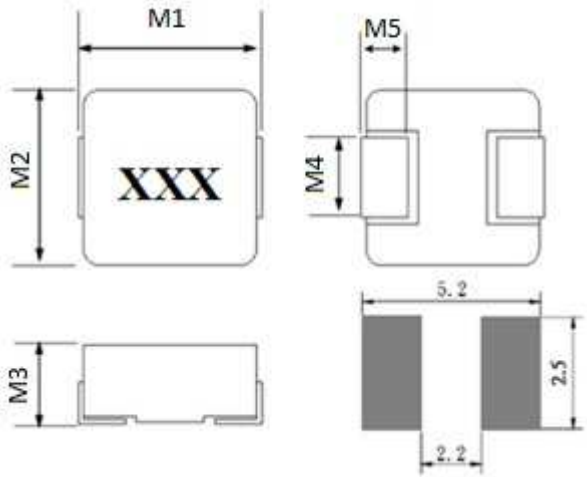
1. Shielded construction.
2. Ultra low buzz noise.
3. Low DCR/μH.
4. Handles high transient current spikes without saturation.
5. Encapsulated body offers improved environmental protection and moisture resistance.
6. Higher dielectric withstanding voltage.
7. Corrosion resistant package.
8. RoHS Compliance.

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





Recommend Pattern

UNIT: mm

	DIM.	TOL.
M1	4.45	±0.25
M2	4.0	±0.3
M3	1.8	±0.2
M4	1.5	±0.3
M5	0.8	±0.3

MARKING AND DATE CODE

Marking ex:1.0uH ➔1R0



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Ordering Information

WL	PM	4442	20	M	R10	L	C
Product Code	**Series**	**Dimensions**	**Thickness**	**Tolerance**	**Value**	**Packing Code**	
WL: Inductor	SMD molded power inductor.	4.4 * 4.0mm	1.8mm	M: ± 20%	R10=0.10uH 1R0=1.0uH 100=10.0uH	L=13" Reeled (Embossed tape)	C:

Electrical Characteristics

WLPM444220*LC series

Walsin Part Number	L(uH)	Tolerance	Measuring Frequency (kHz),0.5V	RDC Maximum (mΩ)		Rated Current Typical (A)	I sat Typical (A)
				TYP.	MAX.		
WLPM444220MR10LC	0.10	M	100	3.5	4.0	12.0	22.0
WLPM444220MR22LC	0.22	M	100	6.0	6.6	9.0	12.5
WLPM444220MR33LC	0.33	M	100	9.6	13.0	8.0	12.0
WLPM444220MR47LC	0.47	M	100	12.5	14.0	7.0	9.5
WLPM444220MR56LC	0.56	M	100	14.0	16.0	6.5	10.0
WLPM444220MR68LC	0.68	M	100	16.0	18.0	6.0	9.0
WLPM444220M1R0LC	1.0	M	100	24.0	27.0	4.5	7.0
WLPM444220M1R2LC	1.2	M	100	24.0	27.0	4.5	7.0
WLPM444220M1R5LC	1.5	M	100	38.0	46.0	4.0	6.0
WLPM444220M2R2LC	2.2	M	100	52.0	58.0	3.0	5.0
WLPM444220M3R3LC	3.3	M	100	74.0	87.0	2.5	4.0
WLPM444220M4R7LC	4.7	M	100	98.0	110.0	2.2	3.5
WLPM444220M5R6LC	5.6	M	100	105.0	115.0	1.8	3.5
WLPM444220M6R8LC	6.8	M	100	160.0	175.0	1.5	2.5
WLPM444220M100LC	10.0	M	100	256.0	282.0	1.2	2.2

TEST INSTRUMENT: CHROMA 16502 、Zentech1320+Zentech3305

(1). Test Freq : **100KHz , 0.5V**
(2). All test data is referenced to 25℃ ambient.
(3). Operating Temperature Range -55℃ to +125℃.
(4). Rated Current: DC current(A)that will cause an approximate△T of 40℃.
(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℃ 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.

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RELIABILITY PERFORMANCE

Reliability Experiment For Electrical

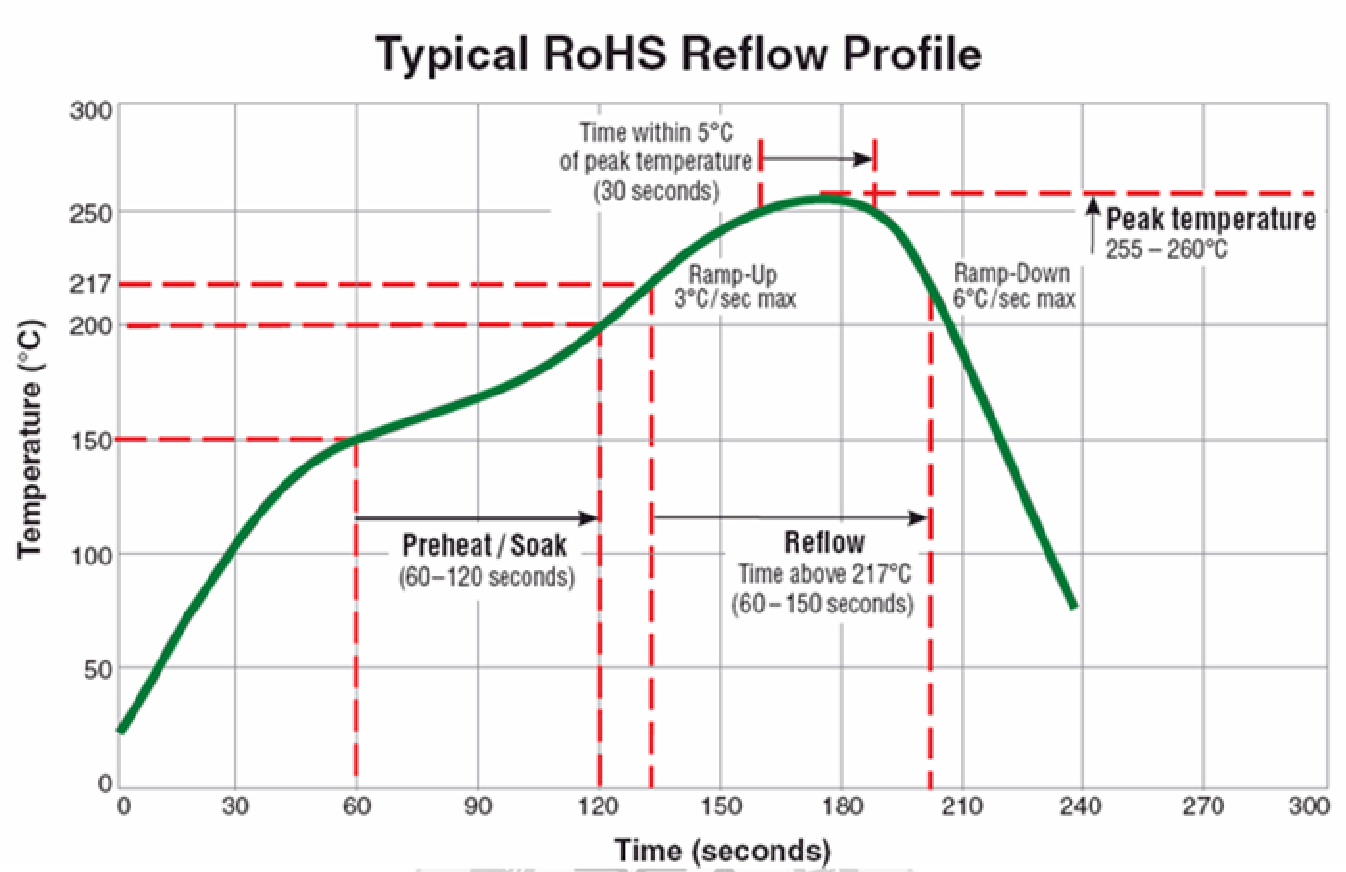
Test Item	Test Condition	Standard Source
Humidity Test	+40℃± 2℃, humidity of 90% ± 5% (total 96 hours).	MIL-STD-202G Method 103B Test Condition B
High Temperature Test	1.Temperature: +125℃±2℃ 2.Test time: 48±2hrs	IEC 68-2 Test Condition B
Low Temperature Test	1.Temperature: -40℃±2℃ 2.Test time: 48±2hrs	IEC 68-2 Test Condition A
Thermal Shock	+125℃±5℃ (30 minutes) ~ -40 ± 5℃ (30 minutes), temperature switch time: 5 minutes (total 50 cycles).	MIL-STD-202G Method 107G Test Condition B-2
Life Test	+70℃±5℃ (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℃ for 5Sec in air, Through 2 Cycle. Temperature Ramp:+1~4℃/sec; Above1 83℃, must keep 90 s - 120 s	MIL-STD-202G Method 210F Test Condition (Reflow)
Solder Ability Test	Soak in 245 ℃ solder pot of 3Sec, PAD must have 95% above coverage.	J-STD-003B

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TYPICAL RoHS REFLOW PROFILE

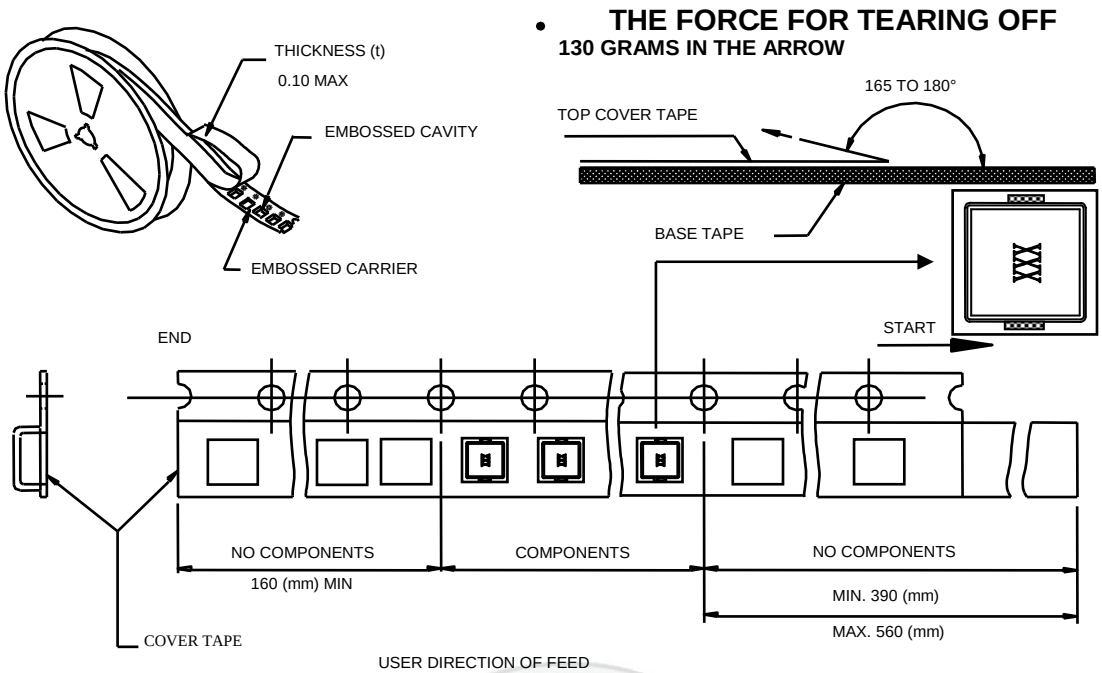


PSA
PASSIVE SYSTEM ALLIANCE
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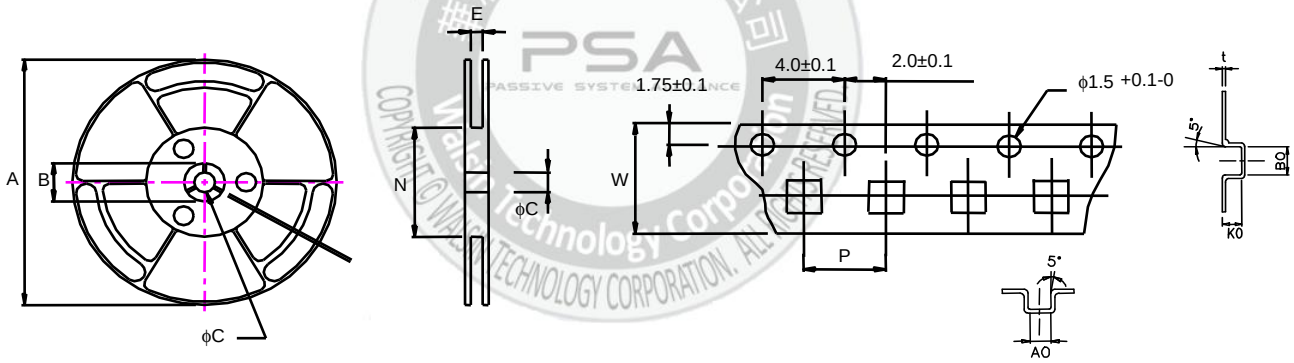
Packaging



CARRIER TAPE REELS (mm)

MATERIAL: PLASTIC

DIMENSIONS OF CARRIER TAPE (mm)



※ **10 sprocket hole pitch cumulative tolerance ±0.20**

UNIT : mm

	A	B	C	E	N	P	W	t	A0	B0	K0
DIM.	330	25.0	13.5	13.0	100	8.0	12.0	0.3	4.7	4.4	2.5
TOL.	±0.2	±0.5	±0.5	±0.5	MIN	±0.1	±0.3	±0.05	±0.1	±0.1	±0.1

Quantity per reel：2K pcs

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