APPROVAL SHEET

WLPM131350 Series
SMD Molded Power Inductors

RoHS COMPLIANT

Pb-Free

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

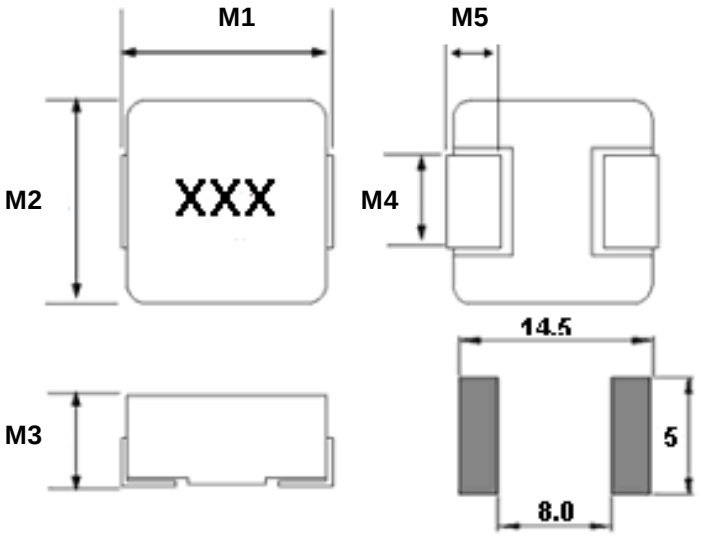
Features

1. Shielded construction.
2. Ultra low buzz noise.
3. Low DCR.
4. Handles high transient current spikes without saturation.
5. Encapsulated body offers improved environmental protection and moisture resistance.
6. Higher dielectric with standing 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

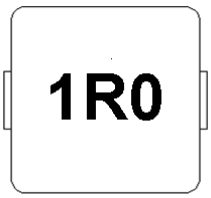


UNIT: mm

	DIM.	TOL.
M1	13.5	±1.0
M2	12.8	±0.5
M3	5.0	Max
M4	3.8	±0.5
M5	2.5	±0.5

Marking code

Marking ex:1.0uH ➔1R0



Ordering Information

WL	PM	1313	50	M	R33	L	C
Product Code	**Series**	**Dimensions**	**Thickness**	**Tolerance**	**Value**	**Packing Code**	
WL: Inductor	SMD molded power inductor.	13.5 *12.8mm	5.0mm	M: ± 20%	R33=0.33uH 2R2=2.20uH	L=13" Reeled (Embossed tape)	C:General

Electrical Characteristics

WLPM131350*LC series

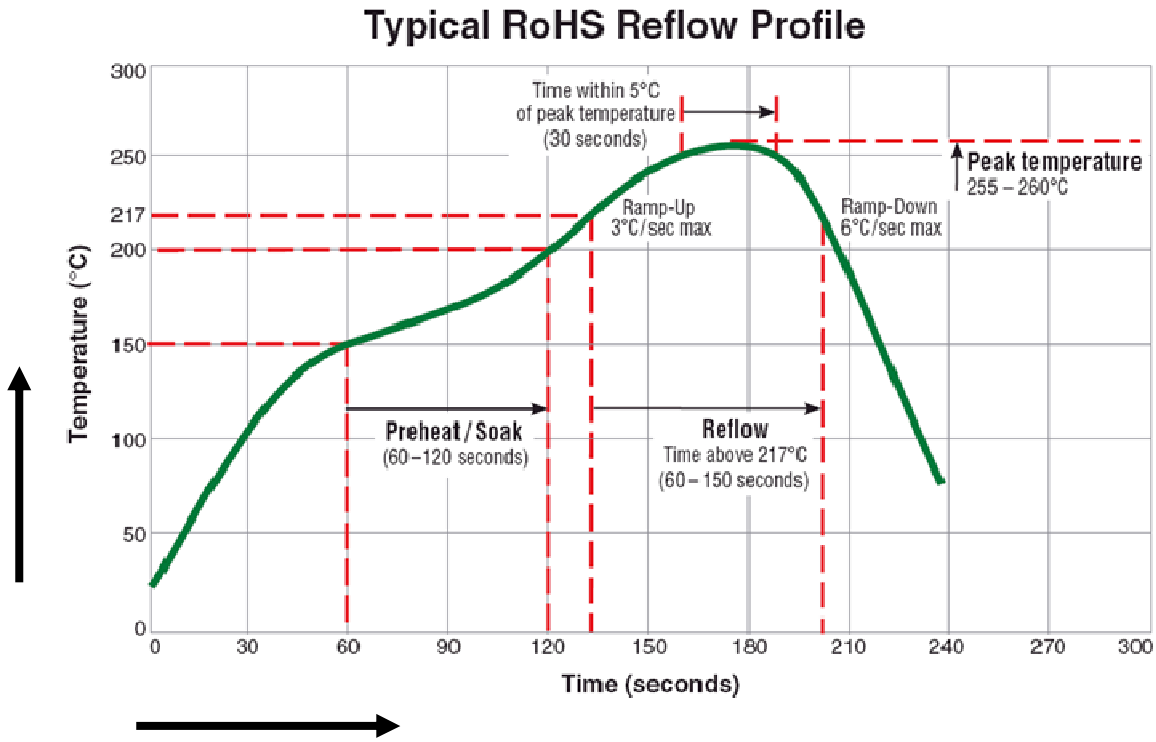
PART NO.	Inductance	Tolerance	DCR Maximum (mΩ)		Rated Current	I sat
	(uH)		TYP	MAX	Typical (A)	Typical (A)
WLPM131350MR10LC	0.1	M	0.53	0.6	55	118
WLPM131350MR22LC	0.22	M	0.64	0.8	51	110
WLPM131350MR33LC	0.33	M	0.85	1.1	42	80
WLPM131350MR47LC	0.47	M	1.1	1.3	38	65
WLPM131350MR56LC	0.56	M	1.3	1.5	36	55
WLPM131350MR68LC	0.68	M	1.5	1.7	34	54
WLPM131350MR82LC	0.82	M	2	2.3	31	53
WLPM131350M1R0LC	1	M	2.1	2.5	29	50
WLPM131350M1R2LC	1.2	M	2.8	3.5	25	49
WLPM131350M1R5LC	1.5	M	3.4	4.1	23	48
WLPM131350M1R8LC	1.8	M	4.2	4.9	19	40
WLPM131350M2R2LC	2.2	M	4.6	5.5	20	32
WLPM131350M3R3LC	3.3	M	7.7	9.2	15	32
WLPM131350M4R7LC	4.7	M	12.8	15	12	27
WLPM131350M5R6LC	5.6	M	14	16.5	11.5	22
WLPM131350M6R8LC	6.8	M	15.4	18.5	11	21
WLPM131350M7R8LC	7.8	M	17.2	20.5	10	18
WLPM131350M8R2LC	8.2	M	18.9	22.5	9.5	18
WLPM131350M100LC	10	M	21.4	25.5	9	16

TEST INSTRUMENT: CHROMA 16502 、Zentech1320+Zentech3305
(1). Test Freq : 100KHz , 1.0V
(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

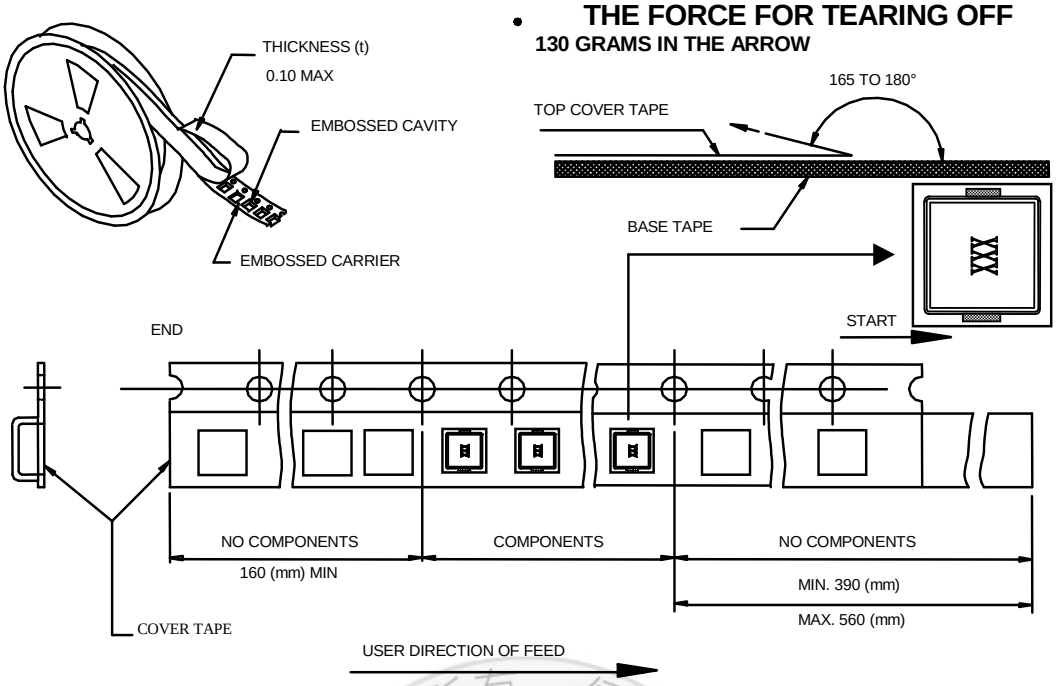
Reliability Performance

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
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 260±5℃ for 30Sec in air, Through 2 Cycle. Temperature Ramp:+1~4℃/sec; Above 217℃, must keep 90 s - 120 s.	J-STD-020D Classification Reflow Profiles
Solder Ability Test	Soak in 245 ℃ solder pot of 3Sec, PAD must have 95% above coverage.	J-STD-003B

Typical RoHS Reflow Profile

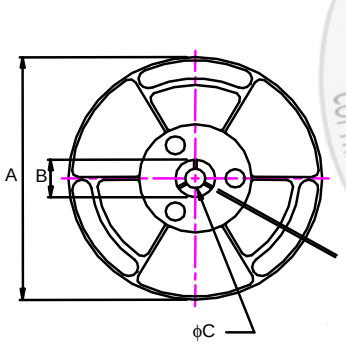


Packaging

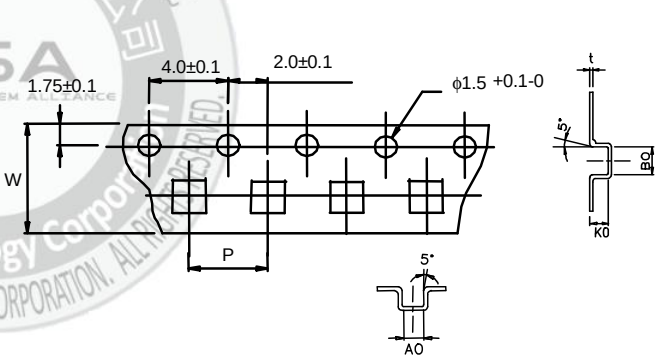


CARRIER TAPE REELS (mm)

MATERIAL: PLASTIC



DIMENSIONS OF CARRIER TAPE (mm)



※ 10 sprocket hole pitch cumulative tolerance ±0.20

UNIT : mm

	A	B	C	E	N	P	W	t	A0	B0	K0
DIM.	330	20.0	13.0	25.0	100	16.0	24.0	0.4	13.1	14.9	6.7
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：500 pcs

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