

APPROVAL SHEET

WLSN043D Series SMD Unshielded Power Inductors

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

Features

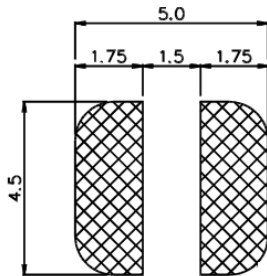
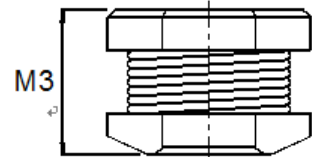
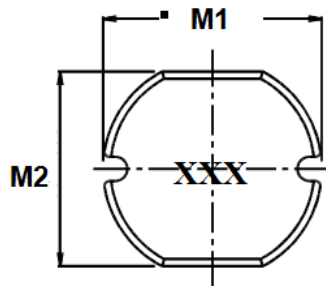
1. Unshielded power inductor.
2. Wide inductance range.

Applications

1. Inductor in DC/DC converter.
2. Use in STB、PDA、Notebook.

Shape and Dimension

Unit: mm



	DIM.	TOL.
M1	4.3	±0.3
M2	4.0	±0.3
M3	3.2	±0.3

LAND PATTERNS

Recommended Patterns

Ordering Information

WL	SN	043D	Z0	M	1R0	L	B
Product Code	Series	Dimensions	Series extension	Tolerance	Value	Packing Code	
WL: Inductor	SMD Unshielded Power Inductors	4.3 * 4.0 mm	Z0:STD	M: ± 20%	1R0 = 1.0uH 100 = 10.0uH	L=13" Reeled (Embossed tape)	B:STD

Electrical Characteristics

WLSN043D Series	Marking	L (uH)	Inductance Tolerance	Test Freq (KHz)	DCR (Ω) MAX.	Rated Current (A)
WLSN043DZ0M1R0LB	1R0	1.0	$\pm 20\%$	100	0.0487	2.56
WLSN043DZ0M1R2LB	1R2	1.2	$\pm 20\%$	100	0.04	2.25
WLSN043DZ0M1R4LB	1R4	1.4	$\pm 20\%$	100	0.0562	2.52
WLSN043DZ0M1R8LB	1R8	1.8	$\pm 20\%$	100	0.0637	1.95
WLSN043DZ0M2R2LB	2R2	2.2	$\pm 20\%$	100	0.0712	1.75
WLSN043DZ0M2R7LB	2R7	2.7	$\pm 20\%$	100	0.0787	1.58
WLSN043DZ0M3R3LB	3R3	3.3	$\pm 20\%$	100	0.0862	1.44
WLSN043DZ0M3R9LB	3R9	3.9	$\pm 20\%$	100	0.0937	1.33
WLSN043DZ0M4R7LB	4R7	4.7	$\pm 20\%$	100	0.1087	1.15
WLSN043DZ0M5R6LB	5R6	5.6	$\pm 20\%$	100	0.1257	0.99
WLSN043DZ0M6R8LB	6R8	6.8	$\pm 20\%$	100	0.1312	0.95
WLSN043DZ0M8R2LB	8R2	8.2	$\pm 20\%$	100	0.1462	0.84
WLSN043DZ0M100LB	100	10	$\pm 20\%$	100	0.182	1.04
WLSN043DZ0M120LB	120	12	$\pm 20\%$	100	0.210	0.97
WLSN043DZ0M150LB	150	15	$\pm 20\%$	100	0.235	0.85
WLSN043DZ0M180LB	180	18	$\pm 20\%$	100	0.338	0.74
WLSN043DZ0M220LB	220	22	$\pm 20\%$	100	0.378	0.68
WLSN043DZ0M270LB	270	27	$\pm 20\%$	100	0.522	0.62
WLSN043DZ0K330LB	330	33	$\pm 20\%$	100	0.540	0.56
WLSN043DZ0K390LB	390	39	$\pm 20\%$	100	0.587	0.52
WLSN043DZ0K470LB	470	47	$\pm 20\%$	100	0.844	0.44
WLSN043DZ0K560LB	560	56	$\pm 20\%$	100	0.937	0.42
WLSN043DZ0K680LB	680	68	$\pm 20\%$	100	1.117	0.37
WLSN043DZ0K331LB	331	330	$\pm 20\%$	100	3.35	0.1

a. Operating Temp : -25°C to $+105^{\circ}\text{C}$.

b. Inductance measured using the HP4284A LCR meter/CHROMA 3302.1320.16502

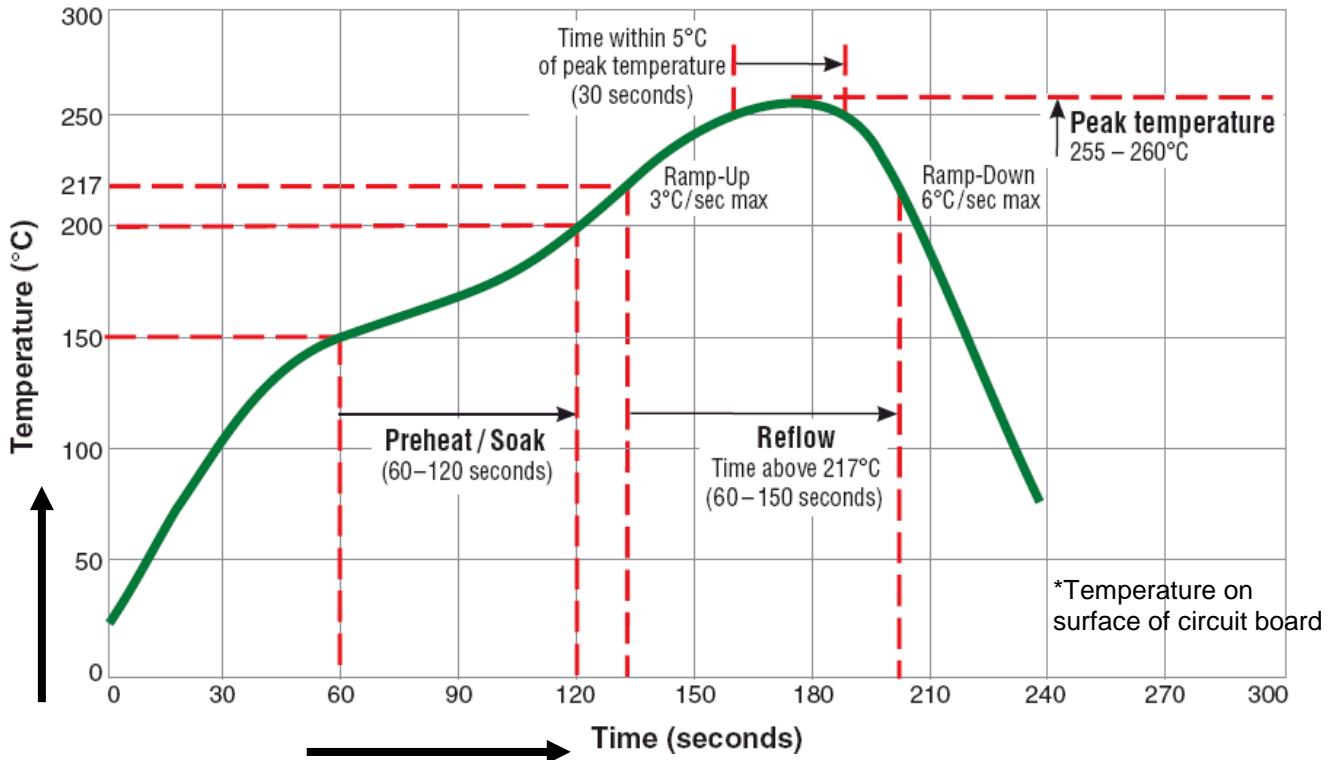
c. DCR measured using the 502BC milli-ohm meter.

d. Inductance drops no more than 10% of initial value at rated current, temperature rises $\Delta t < 40^{\circ}\text{C}$

e. MSL : LEVEL 1

TYPICAL RoHS REFLOW PROFILE

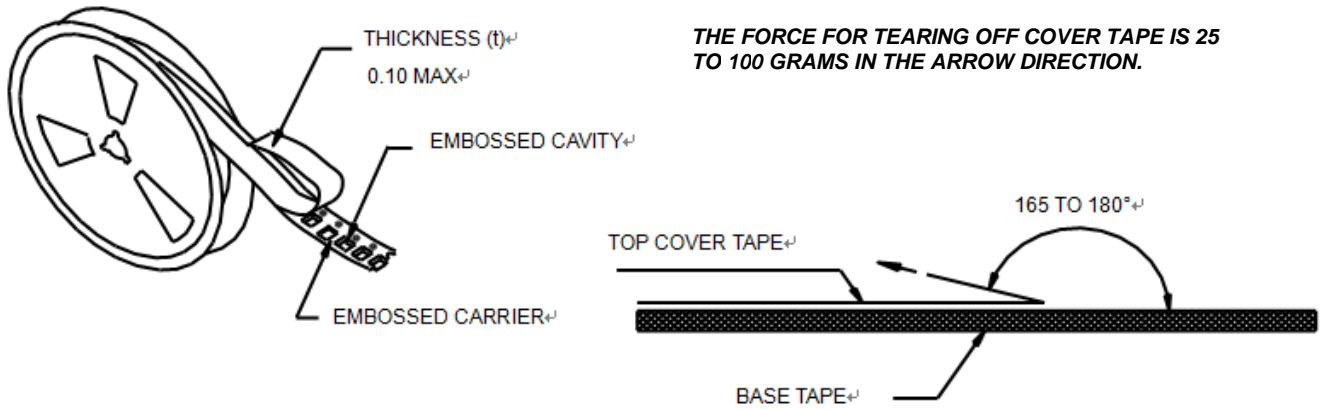
Typical RoHS Reflow Profile



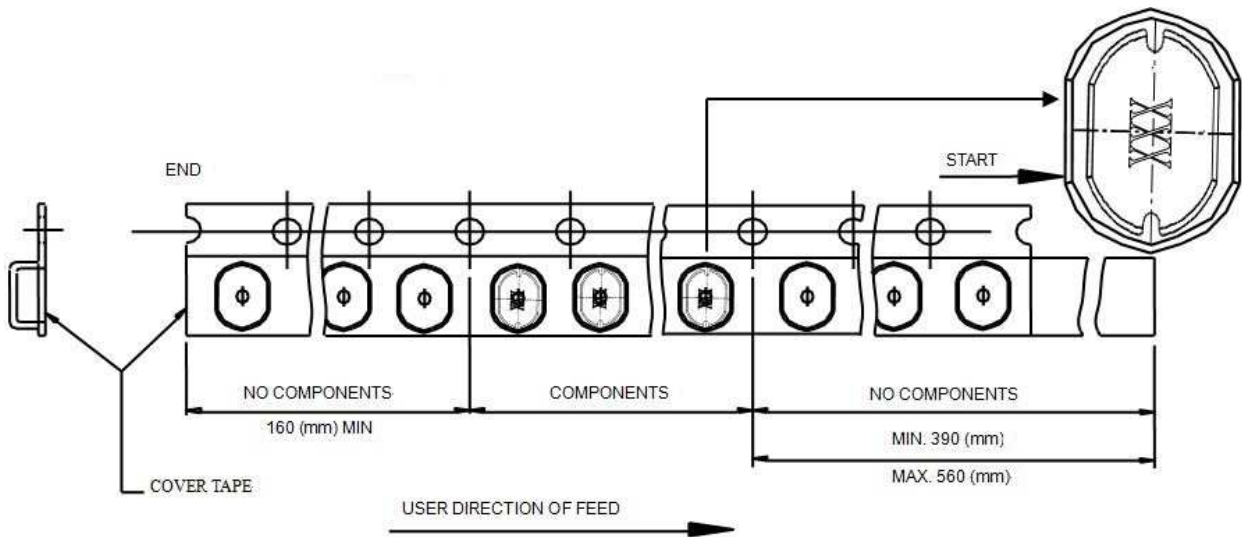
Mechanical Performance /Environmental Test Performance Specifications:

No.	Item	Test condition	Requirements
1	Salt Spray Test	Chamber temperature 35°C, the concentration of salt spray 5% (Total 24 hours).	MIL-STD-202G Method 101E Test Condition C
2	Humidity Test	+40°C ± 2°C, humidity of 90% ± 5% (total 96 hours).	MIL-STD-202G Method 103B Test Condition B
3	High Temperature Storage	1. Temperature: 125, 100, 85, 70, 55, 40, 30°C. 2. Test time: 2, 16, 72, 96 hours.	IEC 68-2 Test Condition B
4	Low Temperature Storage	1. Temperature: -40, -25, -10. 2. Test time: 2, 16, 72, 96 hours.	IEC 68-2 Test Condition A
5	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
6	Life Test	+100°C ± 2°C (1000Hour)	MIL-STD-202G Method 108A Test Condition D
7	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
8	Solder Heat Resistance Test	DIP: Soak in 260°C solder pot, stay 10Sec Reflow: Keep 250 ± 5°C, 30 ± 5Sec in air, Temperature ramp: +1~4°C/sec; Above 183°C, must keep 90 s - 120 s.	MIL-STD-202G Method 210F Test Condition B(DIP) Test Condition (Reflow)
9	Terminal Pull Strength Test	1/2, 1, 2, 3, 5, 10 Pound, as products terminal feature.	MIL-STD-202G Method 211A Test Condition A
10	Solder Ability Test	Soak in 245 °C solder pot of 3Sec, PAD must have 95% above coverage.	J-STD-003B
11	Terminal Push Strength Test	No special requirements: 5N thrust to maintain 10 Sec.	JIS C5321:1997

Tape & Reel Packaging Dimensions:



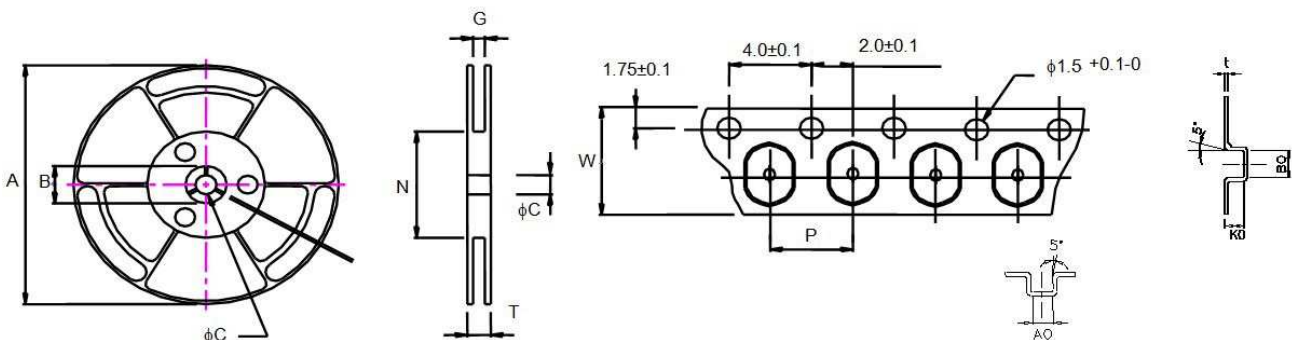
THE FORCE FOR TEARING OFF COVER TAPE IS 25 TO 100 GRAMS IN THE ARROW DIRECTION.



CARRIER TAPE

MATERIAL: PLASTIC

DIMENSIONS OF CARRIER



	A	B	C	G	N	P	T	W	t	A0	B0	K0
DIM.	360	21.0	13.0	12.4	60.0	8.0	18.4	12.0	0.35	4.2	4.6	3.6
TOL.	MAX	±0.8	+0.5-0.2	+2-0	MIN	±0.1	MAX	±0.3	±0.1	±0.1	±0.1	±0.1

Quantity per reel : 2.25K pcs