

APPROVAL SHEET



WLSN043D Series
SMD Unshielded Power Inductors

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

Features

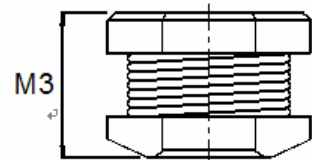
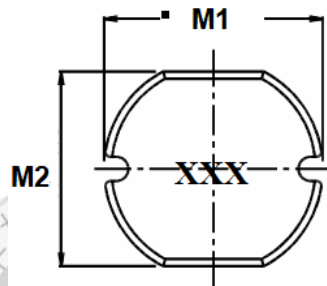
1. Unshielded power inductor.
2. Wide inductance range.

Applications

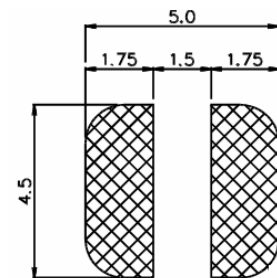
1. Inductor in DC/DC converter.
2. Use in STB 、 PDA 、 Notebook.

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

a. Operating Temp : -25°C to +105°C.

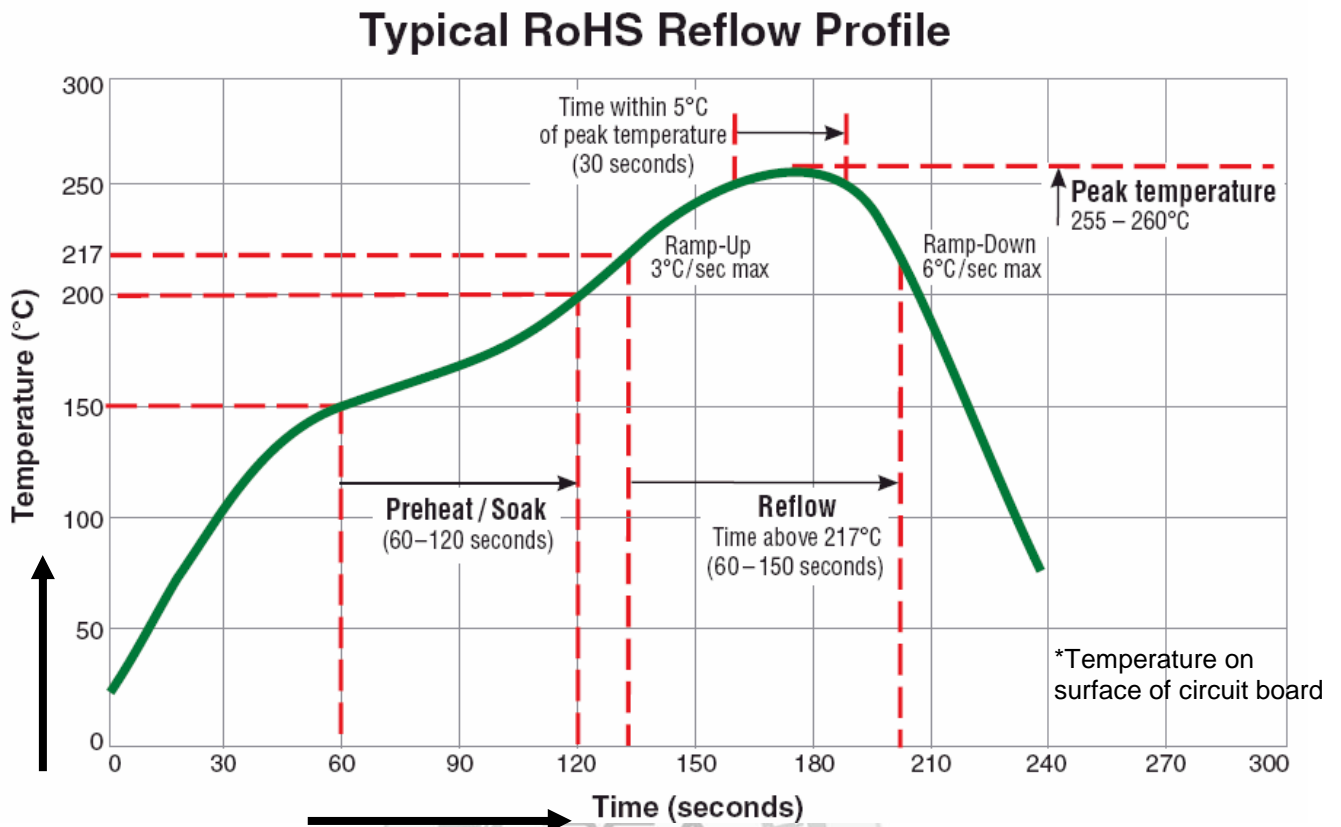
b. Inductance measured using the HP4284A LCR meter/CHROMA 3302.1320.16502

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



RELIABILITY PERFORMANCE

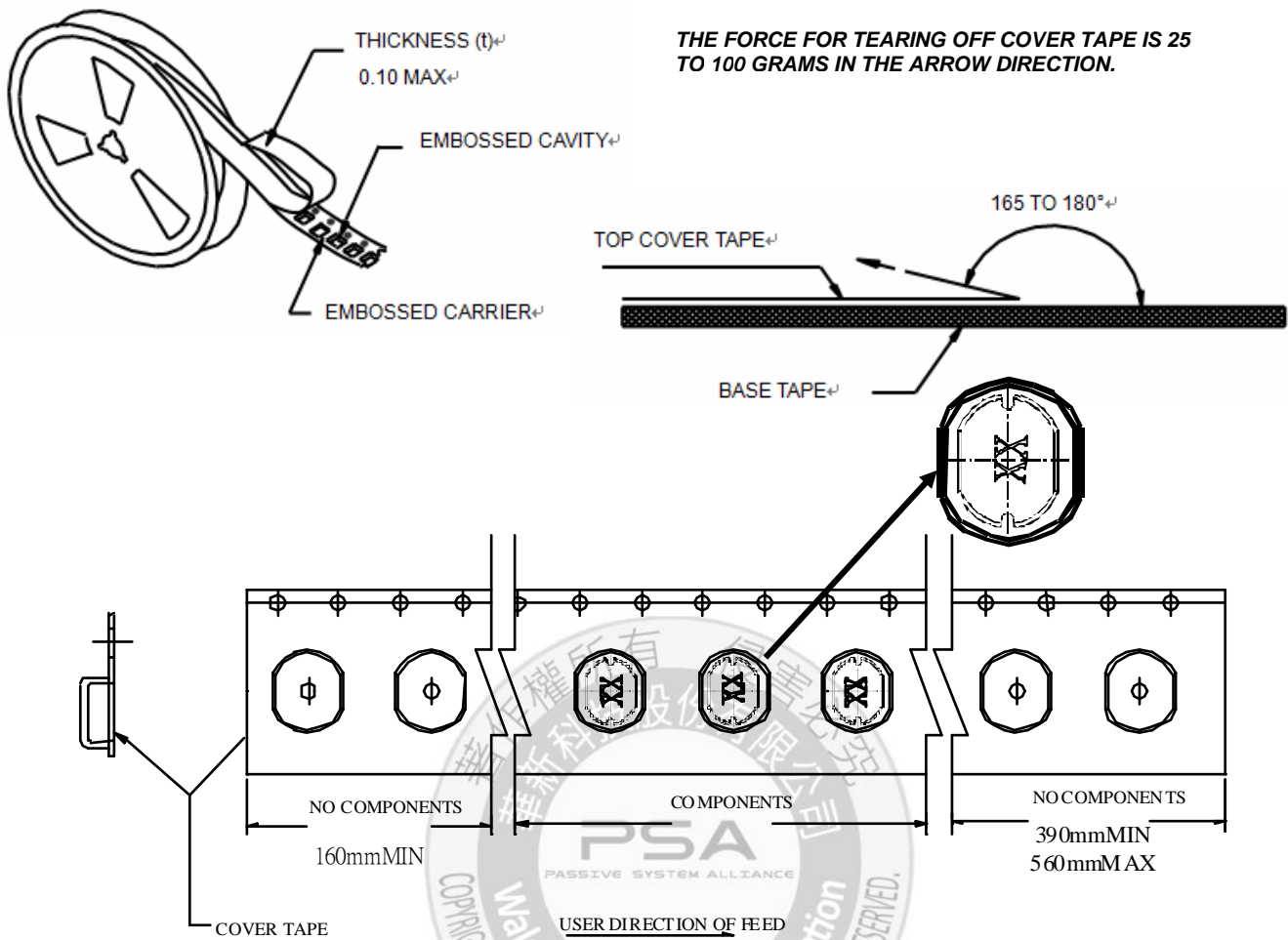
Reliability Experiment For Electrical

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

Tape & Reel Packaging Dimensions:

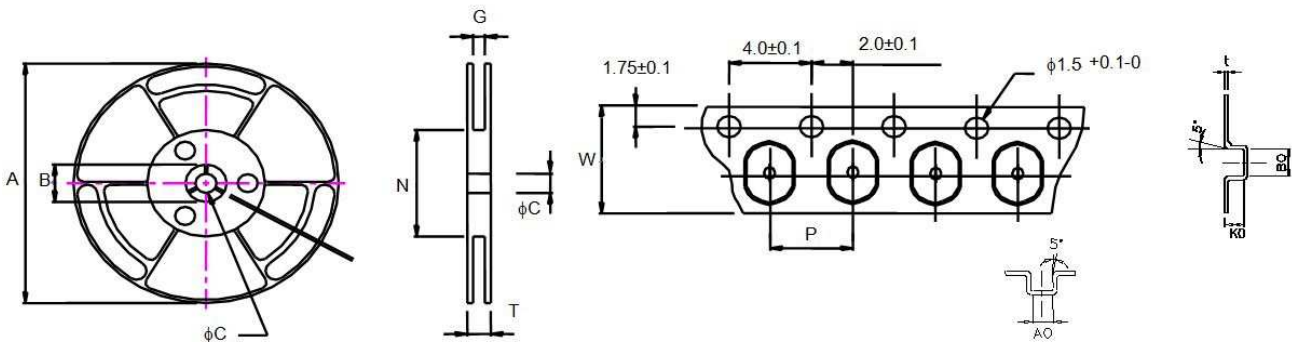


THE FORCE FOR TEARING OFF COVER TAPE IS 25 TO 100 GRAMS IN THE ARROW DIRECTION.

■ 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