

# APPROVAL SHEET



**WLCW4532**  
**SMD Wire Wound Ceramic Chip Inductors**

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

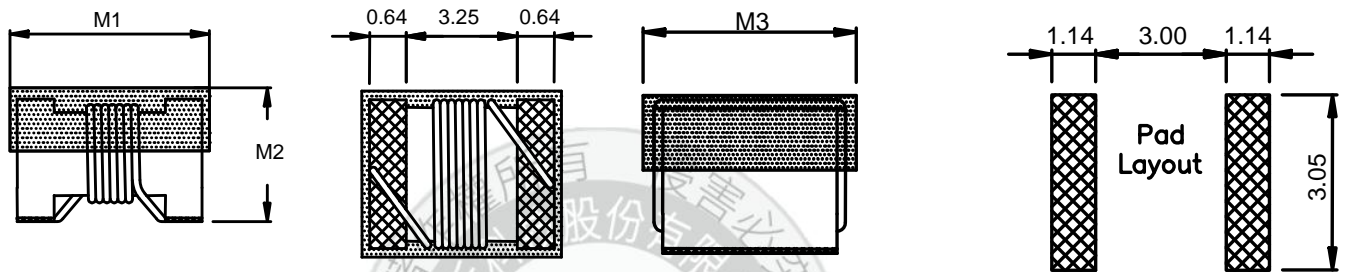
## Features

1. Standard chip size bobbin with wire wound coil provides high reliability, productivity and performance.
2. Excellence Q and SRF characteristics for RF application, such as LO tank, antenna matching and filter.
3. Wide range inductance and various tolerance options.
4. RoHS compliant.

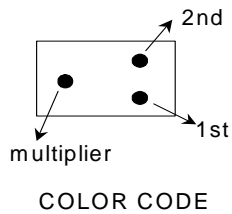
## Applications

1. Communication: GSM/3G/LTE, Wi-Fi, GPS.
2. Consumer: Cabel/Terrestrial/BS Tuner, Bluetooth, Wireless Audio, Remote control.
3. M2M: ZigBee, Proprietary wireless.

## Shape and Dimension



Unit: mm



Example : WLCW4532Z0□R18PB

MARKING : Dots 1 and 2 indicate the inductance in nano Henries.

Example: DOTS 1 : Brown=>1 , DOTS 2 : Gray=>8

Dots 3 indicates multiplier. Brown=>10\*10<sup>1</sup>

WLCW Series	M1	M2	M3
4532	4.55±0.40	3.23±0.20	3.61±0.20

## Ordering Information

WL	CW	4532	Z0	J	R18	P	B
<b>Product Code</b>	<b>Series</b>	<b>Dimensions</b>	<b>Series extension</b>	<b>Tolerance</b>	<b>Value</b>	<b>Packing Code</b>	
WL: Inductor	SMD Wire Wound Ceramic Chip inductor.	4532 :EIA 1812	Z0:STD	G: ±2% J: ±5% K: ±10%	82N = 82nH R18 =180nH 1R2 =1200nH	P=7" Reeled (Embossed tape)	B:STD

## Electrical Characteristics

### WLCW4532 series

Walsin Part Number	L (nH) @50MHz	Tolerance	Q @50MHz Typical	SRF MHz Min.	DCR mOHM Max.	I <sub>rms</sub> (mA)	Color Code		
							1st	2nd	multiplier
WLCW4532Z0□82NPB	82	K, J, G	70	800	60	1500	Gray	Red	Black
WLCW4532Z0□R10PB	100	J, G	70	850	110	1150	Brown	Black	Brown
WLCW4532Z0□R12PB	120	K, J, G	70	800	110	1150	Brown	Red	Brown
WLCW4532Z0□R15PB	150	K, J, G	75	860	110	1150	Brown	Green	Brown
WLCW4532Z0□R18PB	180	K, J, G	80	850	110	1150	Brown	Gray	Brown
WLCW4532Z0□R22PB	220	K, J, G	80	700	105	940	Red	Red	Brown
WLCW4532Z0□R24PB	240	J,	80	700	110	940	Red	Yellow	Brown
WLCW4532Z0□R27PB	270	K, J, G	85	730	120	940	Red	Violet	Brown
WLCW4532Z0□R33PB	330	K, J, G	80	600	135	850	Orange	Orange	Brown
WLCW4532Z0□R39PB	390	K, J, G	80	600	140	850	Orange	White	Brown
WLCW4532Z0□1R2PB	1200	K, J, G	62	230	1200	480	Brown	Red	Red

Tolerance : K : ±10%、J : ±5%、G : ±2%

OPERATING TEMPERATURE : -40°C ~ 125°C

※MSL : LEVEL 1

L、Q TEST BY AGILENT 4291B with 16193A or its equivalent

SRF TEST BY HP 8753E or HP4291B with 16193A or its equivalent

DCR AGILENT 4338B or its equivalent

## RELIABILITY PERFORMANCE

### Reliability Experiment For Electrical

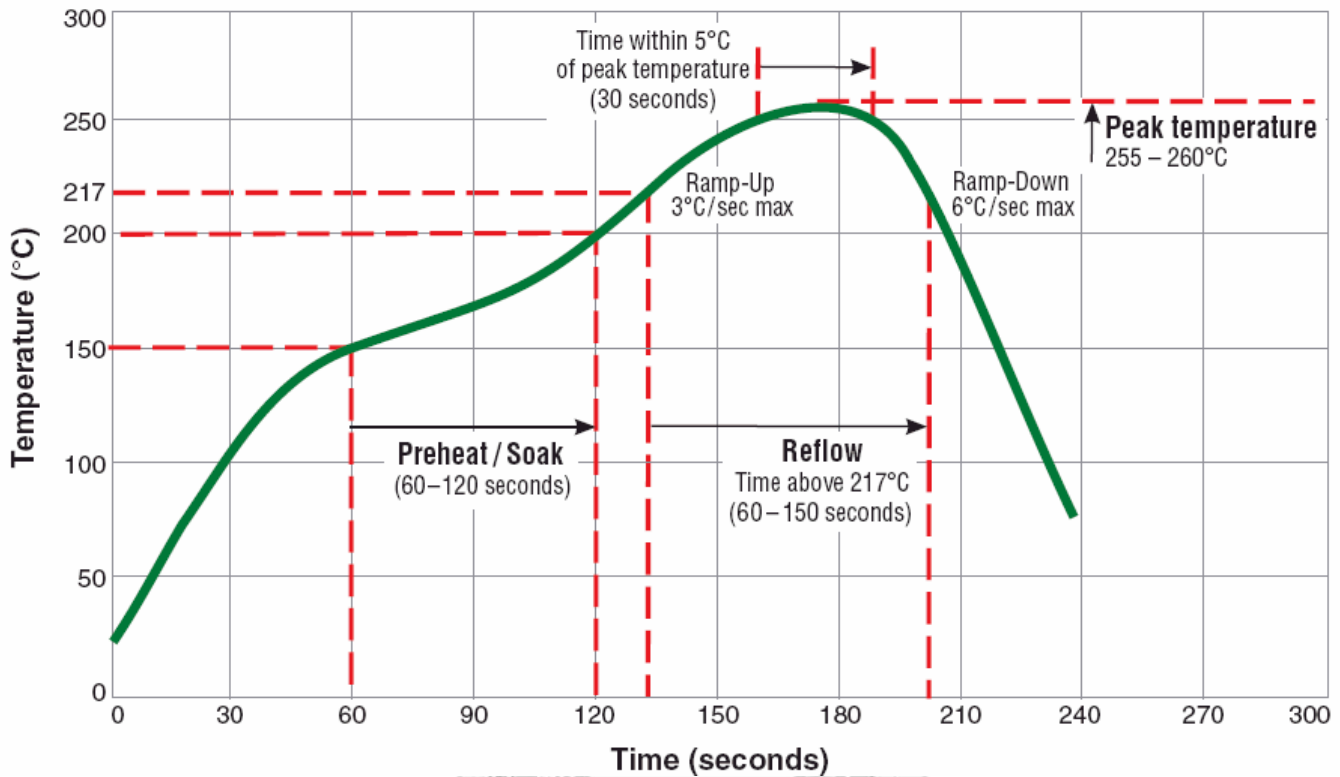
Test Item	Test Condition	Standard Source
Humidity Test	+40°C ± 2°C, humidity of 90% ± 5% (total 96 hours).	MIL-STD-202G Method 103B Test Condition B
High Temperature Test	1. Temperature: +125°C ± 2°C 2. Test time: 48 ± 2hrs	IEC 68-2 Test Condition B
Low Temperature Test	1. Temperature: -40°C ± 2°C 2.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

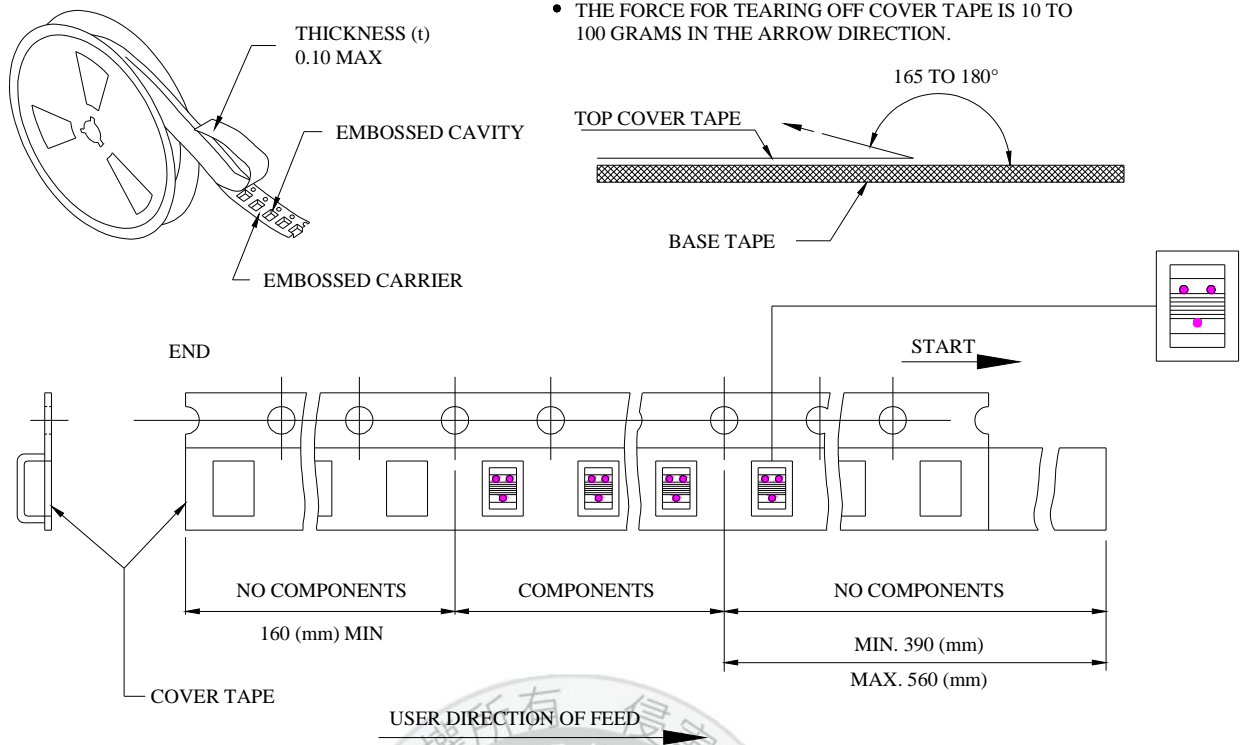
Test Item	Test Condition	Standard Source
Vibration Test	10-55-10HZ, amplitude: 1.5mm, direction: X, Y, Z axes, each axis 2 hours (total 6 hours).	MIL-STD-202G Method 201A
Solder Heat Resistance Test	IR/convection reflow: Peak Temp 250 ± 5°C for 5Sec in air, Through 2 Cycle. Temperature Ramp: +1~4°C/sec;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

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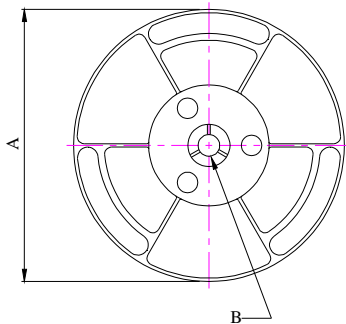


### Packaging Specification

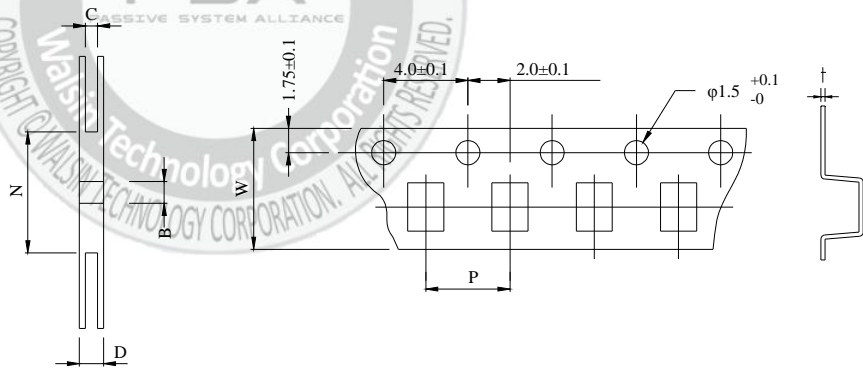


#### ■ CARRIER TAPE REELS (mm)

MATERIAL: PLASTIC



#### ■ DIMENSIONS OF CARRIER TAPE (mm)



	A	B	C	D	N	P	W	t
DIM.	178	13.0	12.5	16.4	50	8.0	12.0	0.25
TOL.	MAX.	+0.5-0.2	+1.5-0	+1.5-0	MIN.	±0.1	±0.2	±0.05

Quantity per reel : 0.6K pcs