



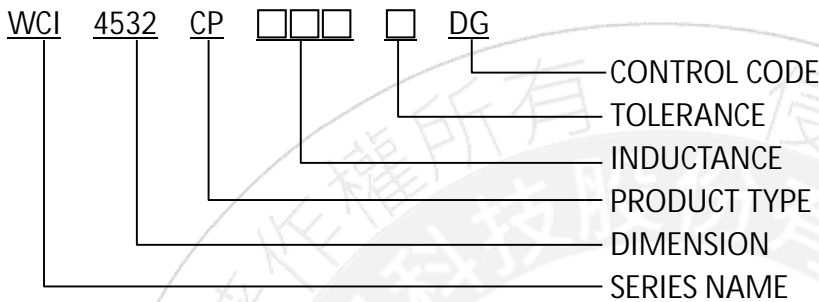
WCI4532CP Series Data Sheet

Product Name	Chip Inductor
Series	WCI4532CP Series
Size	EIAJ 4532
Version	A0

1. SCOPE

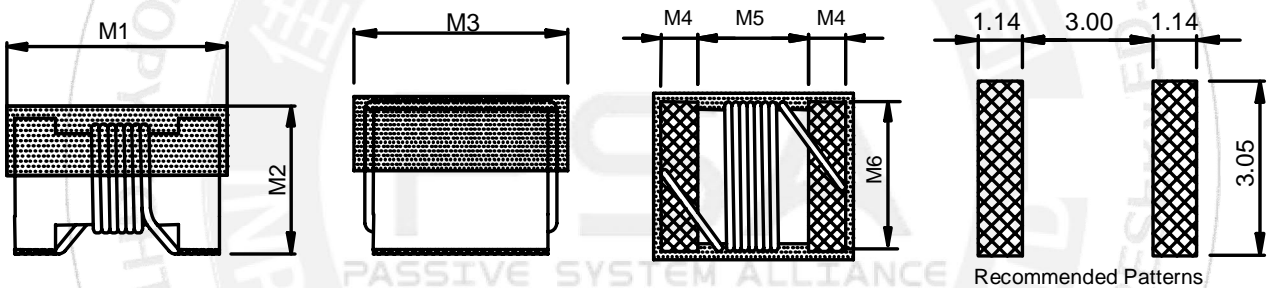
- 1.1. Ceramic core wire wound construction.
- 1.2. High Reliability due to wire wound type construction.
- 1.3. Inductance values from 82 to 4700 nH.
- 1.4. Exceptional Q and high SRF special for high frequency applications.

2. PART NUMBER IDENTIFICATION



3. MECHANICAL DIMENSION

UNIT: mm

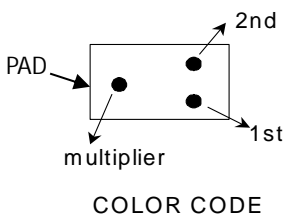


Series	M1	M2	M3	M4	M5	M6
WCI4532CP	4.95 MAX.	3.43 MAX.	3.81 MAX.	0.58±0.1	3.25±0.1	2.90±0.1

4. RATING TEMPERATURE

OPERATING TEMPERATURE RANGE: -25°C TO +125°C.
STORAGE TEMPERATURE RANGE: COMPONENT: -25°C TO +85°C.
TEMPERATURE RISE: Below 15°C at Rated Current.

5. MARKING



Marking Direction: PAD on the left and right sides, color code 1st and 2nd on the right, color code 3 multiplier on the left.

Example : WCI4532CPR18GDG

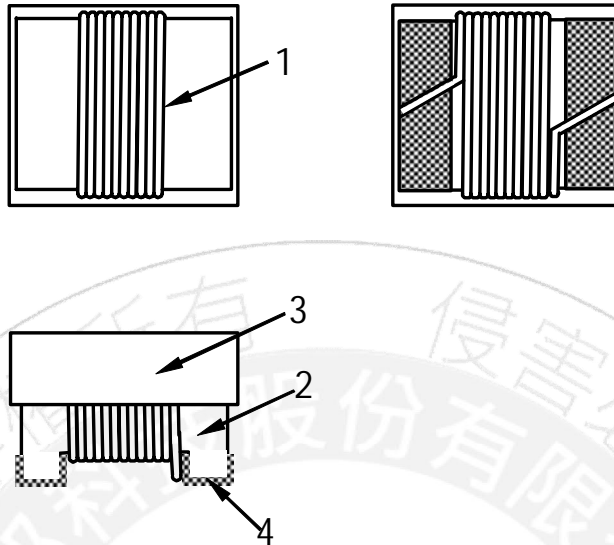
MARKING: Dots 1 and 2 indicate the inductance in nano Henries.

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

Dots 3 indicates multiplier. Brown=>10¹

MARK COLOR CODE IN COMPOSITE ELECTRICAL SPECIFICATION.

6. STRUCTURE



7. MATERIAL LIST

ITEM	MATERIAL CATEGORY	MATERIAL TYPE
1	WIRE	POLYSOL
2	CORE	CERAMIC
3	EPOXY	UV TYPE
4.	TERMINAL	Ag+Ni+Sn

8. TEST INSTRUMENT

8-1 Inductance、Q : TESTED BY KEYSIGHT HP4991B or equivalent.

8-2 SRF : TESTED BY KEYSIGHT 5071C or equivalent.

8-3 DC Resistance : TESTED BY CHROMA 16502 or equivalent.

9. ELECTRICAL SPECIFICATION

Part number	Inductance (nH) @50MHz	Inductance Tolerance	Q @50MHz Typical	SRF (MHz) MIN.	DC Resistance (mΩ) MAX.	I _{rms} (mA)	COLOR CODE		
							1st	2nd	multiplier
WCI4532CPR15GDG	150	±2%	75	860	110	1150	Brown	Green	Brown
WCI4532CPR18GDG	180	±2%	80	850	110	1150	Brown	Gray	Brown
WCI4532CPR22GDG	220	±2%	80	700	105	940	Red	Red	Brown
WCI4532CPR33GDG	330	±2%	80	600	135	850	Orange	Orange	Brown
WCI4532CP1R2GDG	1200	±2%	62	230	1200	480	Brown	Red	Red

NOTE:

- 1. MSL: Level 1



10. RELIABILITY PERFORMANCE

Reliability Experiment For Electrical

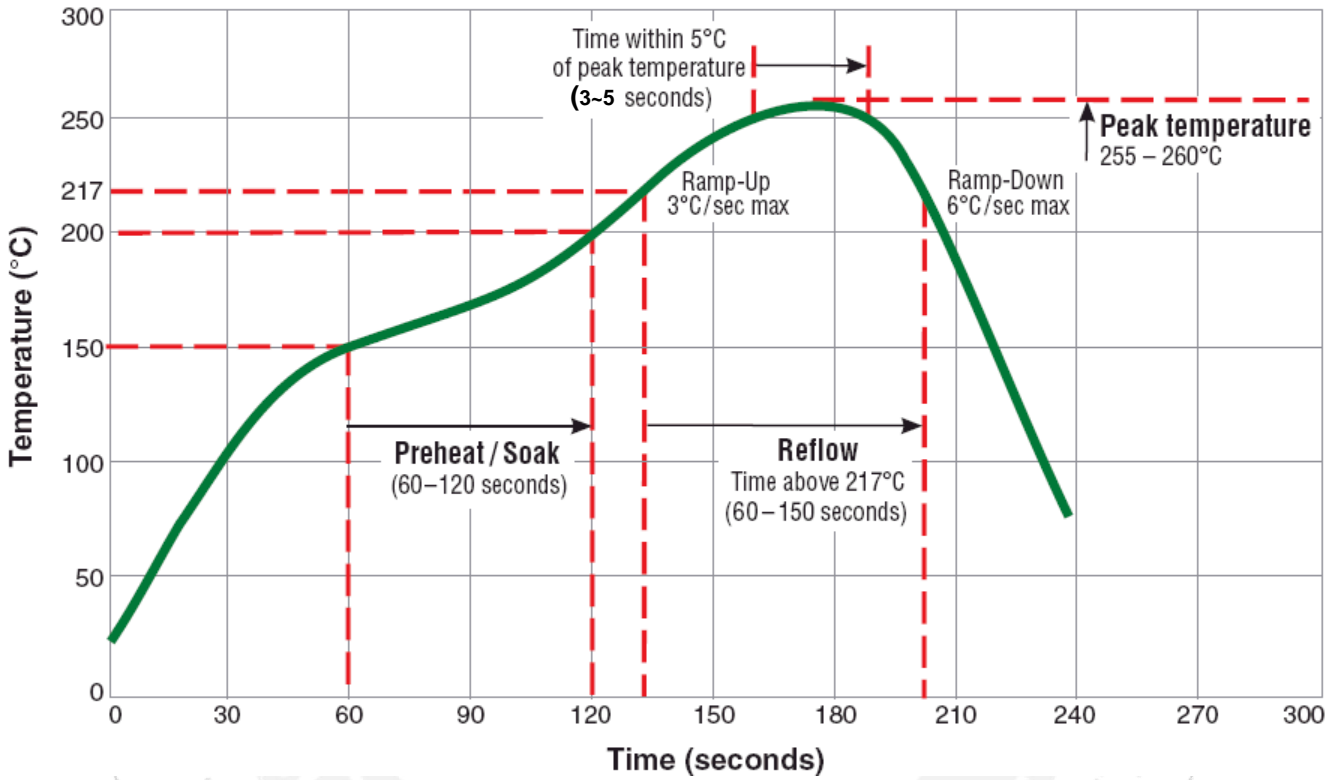
Test Item	Accept criteria	Test Condition	Standard Source
Humidity Test	1.Change from an initial value L:within±5% 2.no visible damage.	+40°C± 2°C, humidity of 90% ±5% (total 96 hours).	MIL-STD-202H Method 103 Test Condition B
High Temperature Test	1.Change from an initial value L:within±5% 2.no visible damage.	1.Temperature: +125°C±2°C. 2.Test time: 72±2hrs.	IEC 68-2 Test Condition B
Low Temperature Test	1.Change from an initial value L:within±5% 2.no visible damage.	1.Temperature: -25°C±2°C. 2.Test time: 72±2hrs.	IEC 68-2 Test Condition A
Thermal Shock	1.Change from an initial value L:within±5% 2.no visible damage.	+125°C±5°C (30 minutes) ~ -65±5°C (30 minutes), temperature switch time: 5 minutes (total 50 cycles).	Reference MIL-STD-202H Method 107 Test Condition B-2
Life Test	1.Change from an initial value L:within±5% 2.no visible damage.	+70°C±5°C (250Hours).	Reference MIL-STD-202H Method 108 Test Condition B

Reliability Experiment For Physical

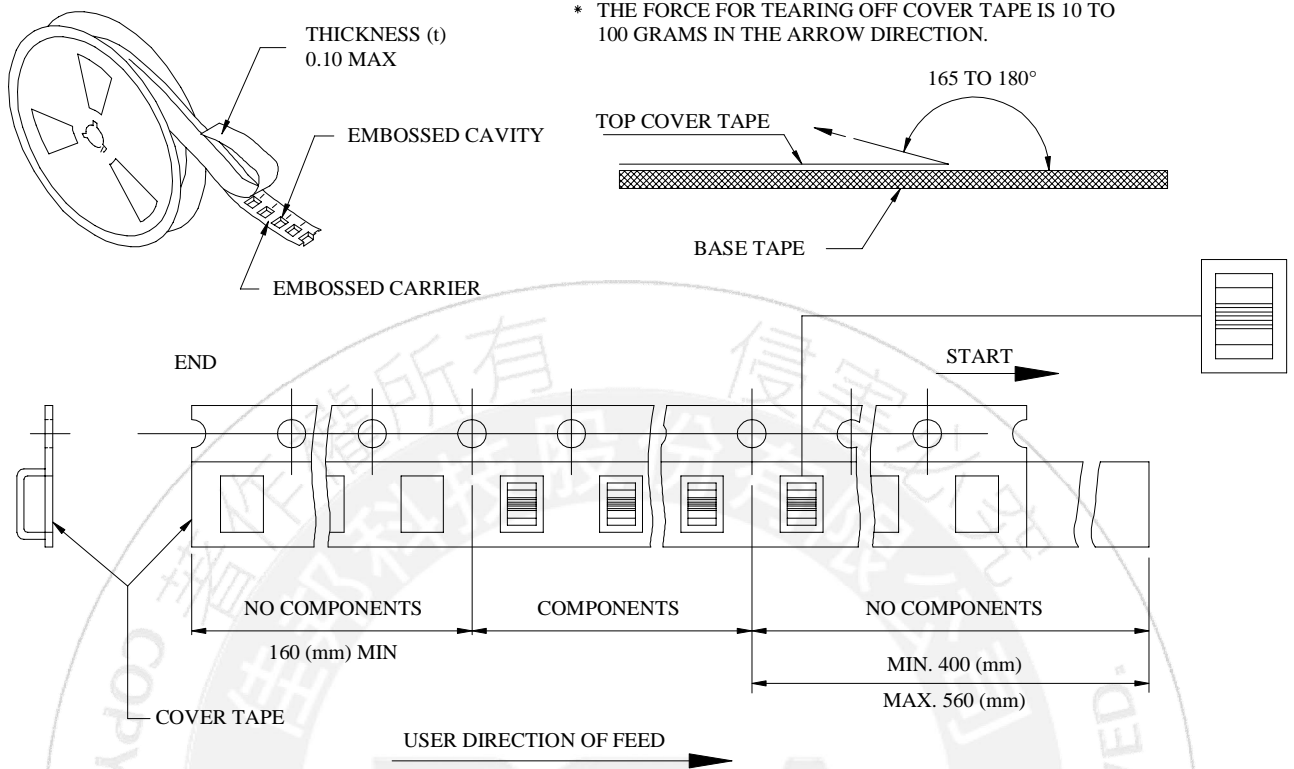
Test Item	Accept criteria	Test Condition	Standard Source
Vibration Test	1.Change from an initial value L:within±5% 2.no visible damage.	10-55-10HZ, amplitude: 1.5mm, direction: X, Y, Z axes, each axis 2 hours (total 6 hours).	MIL-STD-202H Method 201
Solder Heat Resistance Test	1.no visible damage.	IR/convection reflow: Peak Temp 250±5°C for 30±5Sec. in air, Through 3 Cycle. Temperature Ramp:+1-4°C/sec.; Above 183°C, must keep 90 s - 120 s.	Reference MIL-STD-202H Method 210 Test Condition K (Reflow)
Solder Ability Test	1. Lead must have 95% above coverage.	Solder temp: 245±5°C, Immersion time: 5 second. Immersion rate: 25±6mm/sec.	J-STD-002D Test condition B1

11. REFLOW CHART

Typical RoHS Reflow Profile



12. PACKING

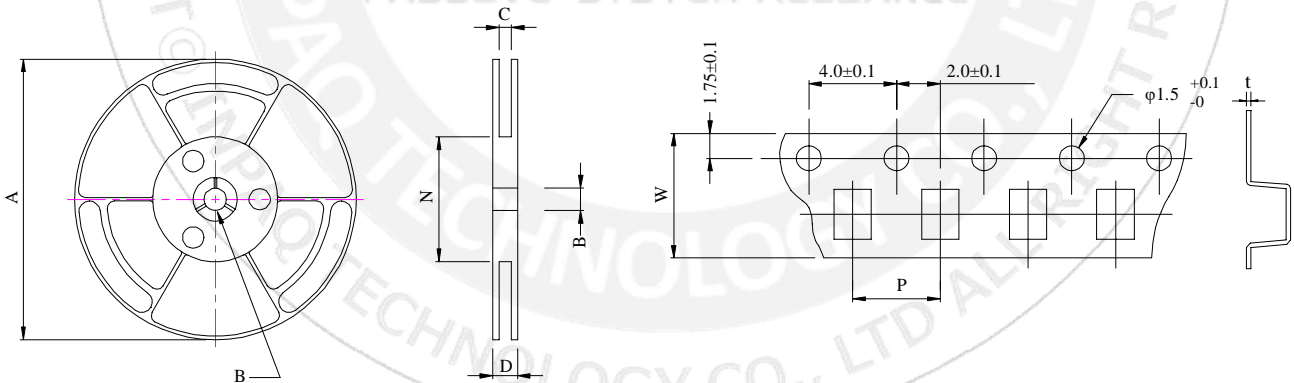


* THE FORCE FOR TEARING OFF COVER TAPE IS 10 TO 100 GRAMS IN THE ARROW DIRECTION.

■ CARRIER TAPE REELS (mm)

MATERIAL: PLASTIC

■ DIMENSIONS OF CARRIER TAPE (mm)



UNIT: 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 : 600 Pcs/Reel