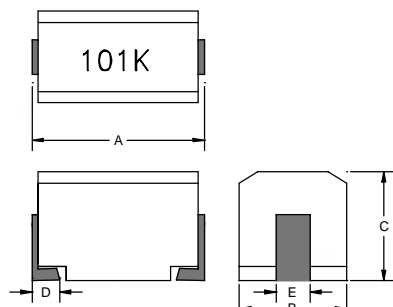


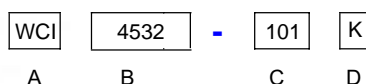
1. Features

- 1.Low profile very effective in space-conscious applications
- 2.Low resistance and high energy storage.

2. Dimension



3. Part Numbering



A:Series

B:Dimension Ax B

C:Inductance

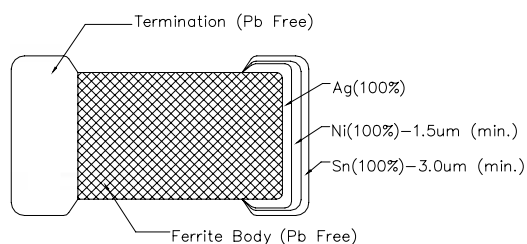
D:Inductance Tolerance

101=100 μ H

K= \pm 10%, J= \pm 5%, L= \pm 15%, M= \pm 20%

Chip size					
Size	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
4532	4.5 \pm 0.3	3.2 \pm 0.2	3.2 \pm 0.2	1.2 typ.	1.1 \pm 0.2

4. Schematic Diagram



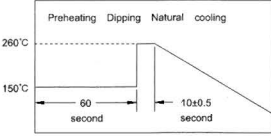
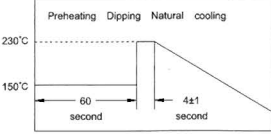
5. Specification

Part Number	Inductance (μ H)	Q min.	Test Frequency (MHz)	SRF (MHz) min.	DC Resistance (Ohm) max.	Rated Current (mA)
WCI4532-R10M	0.10	35	25.2	300	0.18	800
WCI4532-R12M	0.12	35	25.2	280	0.20	770
WCI4532-R15M	0.15	35	25.2	250	0.22	730
WCI4532-R18M	0.18	35	25.2	200	0.25	665
WCI4532-R22M	0.22	35	25.2	220	0.24	700
WCI4532-R27M	0.27	40	25.2	180	0.26	635
WCI4532-R33M	0.33	40	25.2	165	0.28	605
WCI4532-R39M	0.39	40	25.2	150	0.30	575

6. Reliability Test Conditions

Item 項目	Performance 標準	Test Condition 測試條件
Operating Temperature 操作溫度	-40~+85°C	
Storage temperature and Humidity range 儲存溫度與濕度範圍	-40~+85°C	

Electrical Performance Test

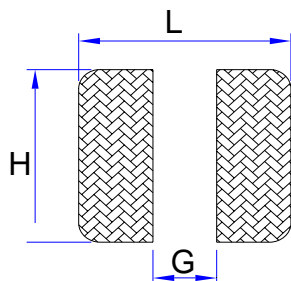
Inductance 電感值	Refer to standard electrical characteristics list. 參考標準特性規格表	HP4291,HP4287A
DCR 直流阻抗		HP4338B,CH16502,Agilent33420A Micro-Ohm Meter.
Rated Current 額定電流		Applied the current to coils, the inductance change shall be less than 10% to initial value.
Temperature Rise Test 溫昇測試	$\Delta T=30^{\circ}\text{C}$ max.	1.Applied the allowed DC current. 2.Temperature measured by digital surface thermometer.
Solder Heat Resistance 耐焊錫熱	Appearance:No significant abnormality. Inductance change:Within $\pm 20\%$. 外觀:無顯著異常. 電感值:變異性在初始值20%以內	 <p>Preheat:150°C,60sec. Solder: Sn-Ag3.0-Cu0.5 Solder temperature:260±5°C Flux for lead free: rosin Dip time:10±0.5sec.</p> <p>預熱:150°C,60sec. 錫爐溫度: 260±5°C 時間: 10±0.5sec. 助焊劑:rosin</p>
Solderability Test 端面焊錫性	More than 90% of the terminal electrode should be covered with solder. 端電極之錫覆蓋面達90%以上.	 <p>Preheat:150°C,60sec. Solder: Sn-Ag3.0-Cu0.5 Solder temperature:230±5°C Flux for lead free: rosin Dip time:4±1sec.</p> <p>預熱:150°C,60sec. 錫爐溫度: 230±5°C 時間:4±1sec. 助焊劑:rosin</p>

Reliability Test

High Temperature Life Test 高溫測試	Appearance: no damage. Inductance: within $\pm 10\%$ of initial value. Q shall not change more than $\pm 20\%$. No disconnection or short circuit.	外觀不能破損. 電感值:變異值在初始值10%以內. Q 值:變異值在初始值20%以內. 電性無短路或斷線	Temperature:85±5°C. Duration:500±12hrs. Measured at room temperature after placing for 2 to 3hrs. 溫度:85±5°C. 放置時間:500±12hrs. 測試結束於室溫放置2~3小時,始可測試電氣特性.															
Low Temperature Life Test 低溫測試	Appearance: no damage. Inductance: within $\pm 10\%$ of initial value. Q shall not change more than $\pm 20\%$. No disconnection or short circuit.	外觀不能破損. 電感值:變異值在初始值10%以內. Q 值:變異值在初始值20%以內. 電性無短路或斷線	Temperature:-40±5°C. Duration:500±12hrs. Measured at room temperature after placing for 2 to 3hrs. 溫度:-40±5°C. 放置時間:500±12hrs. 測試結束於室溫放置2~3小時,始可測試電氣特性.															
Thermal shock 熱衝擊試驗	Appearance: no damage. Inductance: within $\pm 10\%$ of initial value. Q shall not change more than $\pm 20\%$. No disconnection or short circuit.	<table border="1" data-bbox="715 1413 1007 1559"> <thead> <tr> <th>階段</th> <th>溫度(°C)</th> <th>時間(分)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-40±3°C</td> <td>30±3</td> </tr> <tr> <td>2</td> <td>常溫</td> <td>within3</td> </tr> <tr> <td>3</td> <td>+85±3°C</td> <td>30±3</td> </tr> <tr> <td>4</td> <td>常溫</td> <td>within3</td> </tr> </tbody> </table> <p>試驗回數:10 回</p>	階段	溫度(°C)	時間(分)	1	-40±3°C	30±3	2	常溫	within3	3	+85±3°C	30±3	4	常溫	within3	Condition for 1 cycle Step1:-40±3°C 30±3 min. Step2:Room temperature within 3 min. Step3:+85±3°C 30±3 min. Step4: Room temperature within 3 min. Number of cycles:10 Measured at room temperature after placing for 2 to 3 hrs. 測試結束於室溫放置2~3小時,始可測試電氣特性.
階段	溫度(°C)	時間(分)																
1	-40±3°C	30±3																
2	常溫	within3																
3	+85±3°C	30±3																
4	常溫	within3																
Humidity Resistance 高濕測試	Appearance: no damage. Inductance: within $\pm 10\%$ of initial value. Q shall not change more than $\pm 20\%$. No disconnection or short circuit.	外觀不能破損. 電感值:變異值在初始值10%以內. Q 值:變異值在初始值20%以內. 電性無短路或斷線	Humidity:90~95%RH. Temperature:60±5°C. Applied current:rated current. Duration:500±12hrs. Measured at room temperature after placing for 2 to 3hrs. 濕度:90~95%RH. 溫度:60±5°C. 須加電流:額定電流. 放置時間:500±12hrs. 測試結束於室溫放置2~3小時,始可測試電氣特性.															

7.1. Design of Land Pattern And Solderability

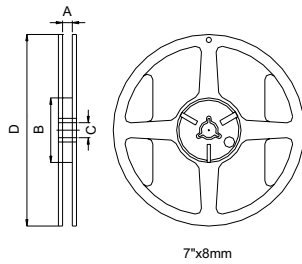
Terminations to be well soldered after immersion in a Sn(99.3)/Cu(0.7) tin/lead solder bath at 245 ± 5°C for 5 ± 1 seconds.



L G H
6.0 3.0 2.8

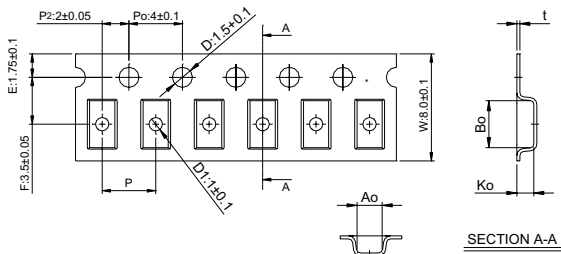
8. Packaging Information

8-1. Reel



Type	A(mm)	B(mm)	C(mm)	D(mm)
7"x12mm	13.5±0.5	60±2	13.5±0.5	178±2

8.2. Tape Dimension (Unit:mm)

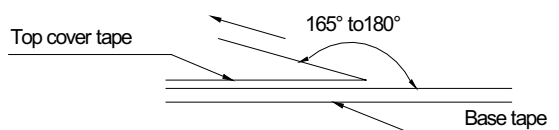


Series	Size	Bo(mm)	Ao(mm)	Ko(mm)	P(mm)	t(mm)
WCI	4532	4.95±0.10	3.31±0.10	3.50±0.10	8.0±0.10	0.35±0.05

8.3. Packaging Specification

Chip Size	4532
Chip / Reel	500
Inner box	2000
Middle box	10000
Carton	50000

8-4. Tearing Off Force



The force for tearing off cover tape is 15 to 60 grams in the arrow direction under the following conditions.

Room Temp. (°C)	Room Humidity (%)	Room atm (hPa)	Tearing Speed mm/min
5~35	45~85	860~1060	300