

**SPECIFICATION FOR APPROVAL**

**Customer:** \_\_\_\_\_

**Customer P/N:** \_\_\_\_\_

**Drawing NO :** \_\_\_\_\_

**Quantity :** 0 **Pcs.** **Date :** 2026/03/4

**Pulse P/N :** AWPC00453226 SERIES

**Automotive Grade Inductor**

**Halogen Free  
RoHS Compliant  
REACH Compliant  
Lead Free Solders  
AEC-Q200**

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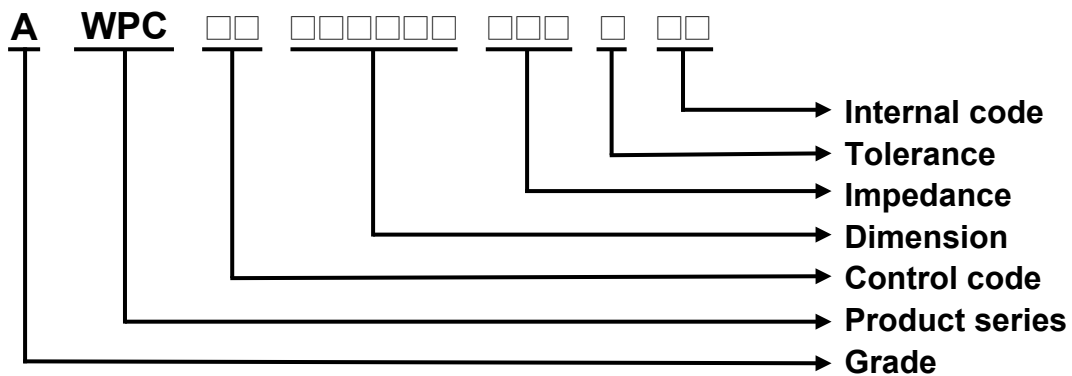


# AWPC00453226 Series Specification

AEC-Q200

**1 Scope:** This specification applies to AWPC Series Wire Wound Common Mode Choke Coil

**2 Part Numbering:**



**3 Rating:**

Operating Temperature: - 55°C ~ 125°C  
(Including self - temperature rise)

Storage Temperature: - 40°C ~ 125°C  
(The storage temperature range is for after the assembly)

**4 Marking:**

**No Marking**

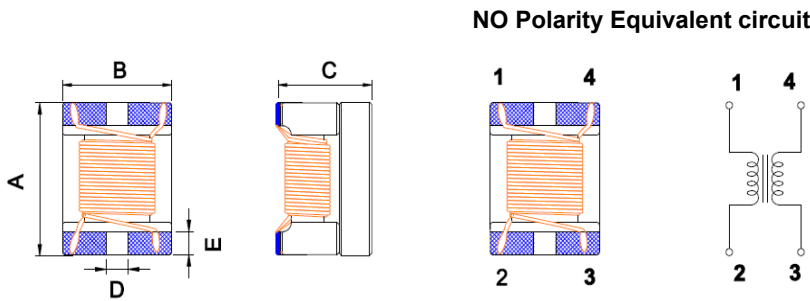
**5 Standard Testing Condition**

	Unless otherwise specified	In case of doubt
Temperature	Ordinary Temperature(15 to 35°C)	20 to 30°C
Humidity	Ordinary Humidity(25 to 85% RH)	50 to 80 %RH

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## 6 Configuration and Dimensions and Unit Weight:



Dimensions in mm

TYPE	453226
A	4.5±0.2
B	3.2±0.2
C	2.6±0.2
D	0.70
E	0.75

Size Code	Net weight(grams)
453226	0.147 (typ.)

## 7 Electrical Characteristics:

Part No.	Z (Ω)	Test Freq. (MHz)	RDC(mΩ) Max	IDC (A)	Insulation Resistance (MΩ)Min.	Rated Voltage (Vdc)Max.	Tolerance (±%)
AWPC00453226600□00	60	100	30	3.0	10	125	20/25
AWPC00453226900M00	90	100	39	3.0	10	125	20/25
AWPC00453226221□00	220	100	47	2.8	10	125	20/25
AWPC00453226231□00	230	100	47	2.8	10	125	20/25
AWPC00453226331□00	330	100	58	2.5	10	125	20/25
AWPC00453226421□00	420	100	60	2.2	10	125	20/25
AWPC00453226501□00	500	100	101	2.0	10	125	20/25
AWPC00453226601□00	600	100	82	2.0	10	125	20/25
AWPC00453226801□00	800	100	89	1.8	10	125	20/25
AWPC00453226901□00	900	100	110	1.8	10	125	20/25
AWPC00453226102□00	1000	100	113	1.5	10	125	20/25
AWPC00453226142□00	1400	100	148	1.0	10	125	20/25
AWPC00453226202□00	2000	100	150	1	10	125	20/25
AWPC00453226282□00	2000	100	150	1	10	125	20/25

**NOTE : tolerance M:±20% / Y :±25% / T :±30%**

1. Operating temperature range ' -55°C ~ 125°C(Including self - temperature rise)
2. Z Test Frequency : 100MHz,0.1V
3. RDC: SINGLE WIRE TEST VALUE
4. I<sub>rms</sub> for a 15°C temperature rise from 25°C ambient.

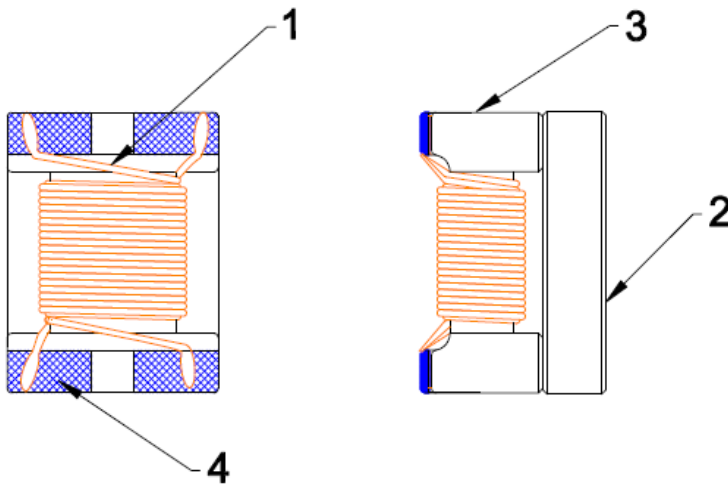
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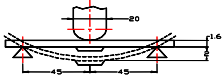
## 8 AWPC00453226 Series

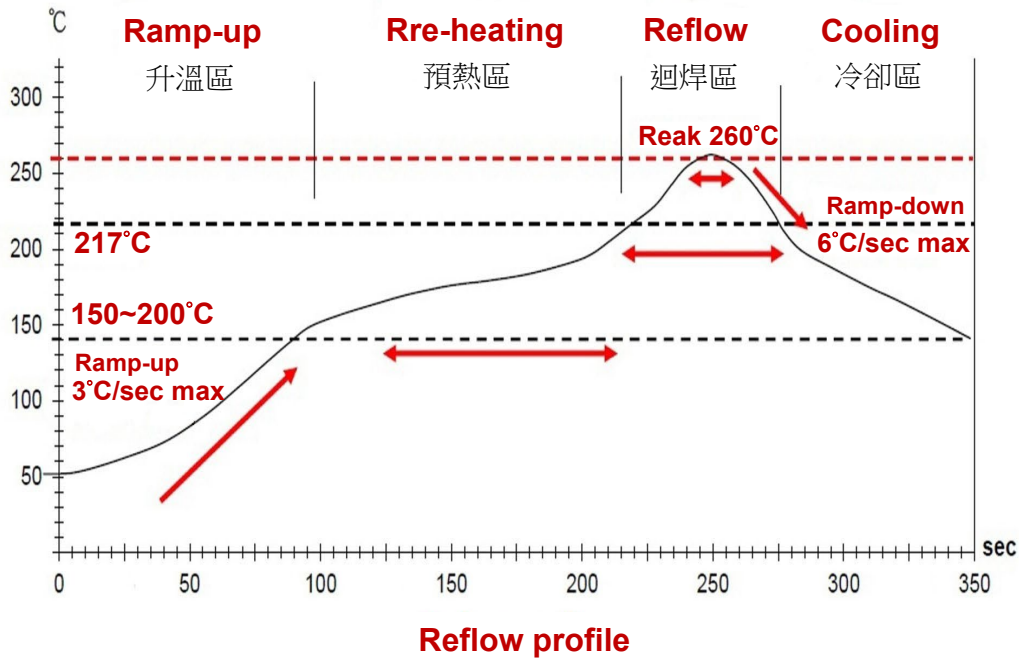
### 8.1 Construction:



### 8.2 Material List:

NO	Part	Material
1	Wire	Grade 180
2	Cover Sheet	Ferrite Core
3	Core	Ferrite Core
4	Terminal	Ag/Cu/Ni/Sn

<b>9 Reliability of Common Mode Choke</b>			
<b>1-1.Mechanical Performance</b>			
	<b>Item</b>	<b>Specification</b>	<b>Test Method</b>
1-1-1	Board Flex	The forces applied on the right conditions must not damage the terminal electrode and the ferrite.	Test device shall be soldered on the substrate Substrate Dimension: 100x40x1.6mm Deflection: 2.0mm Keeping Time: 60 sec 
1-1-2	Terminal Strength	The chip must not damage the terminal electrode and the ferrite.	Appendix 1 Note(AEC-Q200-005):Force of 2Lbs for 60 seconds.
1-1-3	Solderability	The electrodes shall be at least 95% covered with new solder coating.	Pre-heating: 150°C, 1min Solder Composition: Sn/3.0Ag/0.5Cu Solder Temperature: 245±5°C Immersion Time: 4±1sec
1-1-4	Resistance to Soldering Heat	Appearance:No damage Inductance change shall be within ±20%.	Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5 Solder Temperature: 260±5°C Immersion Time: 10±1sec
1-1-5	Resistance to Solvents	There must be no change in appearance or obliteration of marking.	Inductors must withstand 6 minutes of alcohol or water.
1-1-6	Mechanical Shock	The forces applied on the right conditions must not damage the terminal electrode and the ferrite.	Pulse shape : Half-sine waveform Impact acceleration : 100 g Pulse duration : 6 ms Number of shocks : 18 shocks (3 shocks for each face) Orientation : Bottom, top, left, right, front and rear faces
1-1-7	Vibration	Appearance:No damage Inductance change shall be within ±20%.	Vibration waveform: Sine waveform Vibration frequency: 10Hz~2000Hz Vibration acceleration: 5g Sweep rate: 0.764386octave/minute Duration of test: 12 cycles each of 3 orientations 20 minutes for each cycle Vibration axes: X, Y & Z
<b>1-2.Environmental Performance</b>			
No	Item	Specification	Test Method
1-2-1	High Temperature Exposure (Storage)	Appearance:No damage (for microscope of CASTOR MZ-45 20X)Inductance change shall be within ±20%.	Temperature: 125±3°C Time: 1000hrs Measured after exposure in the room condition for 24hrs
1-2-2	Low Temperature Exposure (Storage)		Temperature: -55±3°C Time: 1000hrs Measured after exposure in the room condition for 24hrs
1-2-3	Biased Humidity		Temperature: 85±2°C Relative Humidity: 85% Time: 1000hrs Measured after exposure in the room condition for 24hrs
1-2-4	Temperature Cycling		Total cycles: 1000 cycles Temperature Cycling Test Conditions : -55 to +125 °C Soak Mode Condition : 30 minutes Measured after exposure in the room condition for 24hrs
1-2-5	Operational Life		Temperature: 125±2°C Applend Current : Rated Current Time: 1000± 24 hrs Measured after exposure in the room condition for 24hrs
1-2-6	ESD		Test mode : Contact Discharge Discharge level : ±6KV, Discharge interval : 1 second Polarity of the output voltage : Positive and negative Number of discharge : Discharge +/- for 1 time for the 2 test points. Test Mode : Air Discharge Discharge level : ±12KV, ±16KV, ±25KV Discharge interval : < 5 seconds Polarity of the output voltage : Positive and negative Number of discharge : Discharge +/- for 1 time for the 1~2 test points.



Lead-Free(LF)標準溫度分析範圍

Refer to J-STD-020C

管制項目 Item.	升溫區 Ramp-up	預熱區 Pre-heating	迴焊區 Reflow	Peak Temp	冷卻區 Cooling
溫度範圍 Temp.scope	R.T~150°C	150°C~200°C	Above 217°C	260±5°C	Peak Temp.~150°C
標準時間 Time spec.	—	60~180 sec	60~150 sec	5~10 sec	—
實際時間 Time result	—	75~100 sec	90~120 sec	10sec	—

**NOTE:**

- 1.Re-flow possible times : within 3 times
- 2.Nitrogen adopted is recommended while in re-flow
- 3.Products can only be soldered with reflow

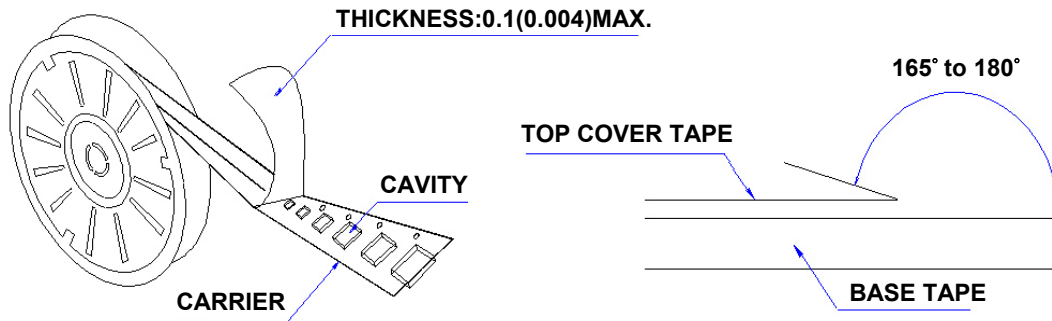
# AWPC00453226 Series Specification

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## 10 Packaging:

### 10.1 Packaging -Cover Tape

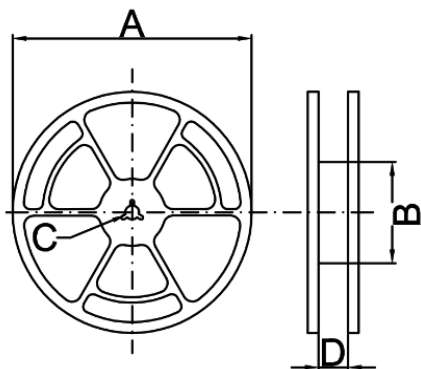
The force for tearing off cover tape is 10 to 130 grams in the arrow direction.



### 10.2 Packaging Quantity

TYPE	PCS/REEL
453226	2500

### 10.3 Reel Dimensions



Dimensions in mm

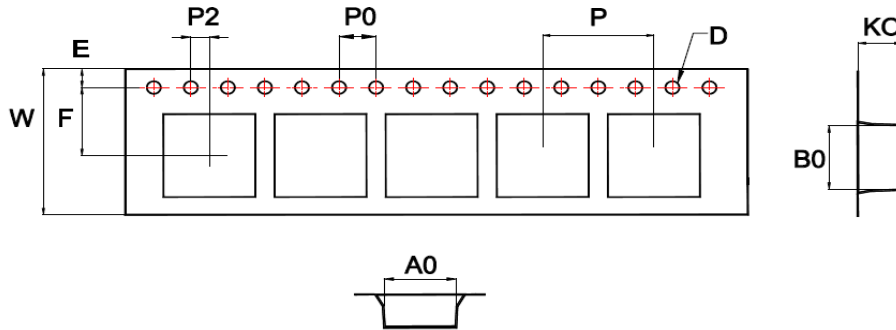
TYPE	A	B	C	D
453226	330	100	13	13.4

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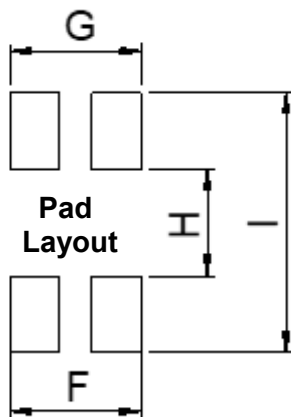
## 10 Packaging:

### 10.4 Tape Dimensions in mm



TYPE	A0	B0	K0	D	E	F	W	P	P0	P2
453226	3.6	4.9	3.0	1.5	1.75	5.50	12	8	4	2

## 11 Recommended Land Pattern:



TYPE	F	G	H	I
453226	0.6	3.4	3	5.9

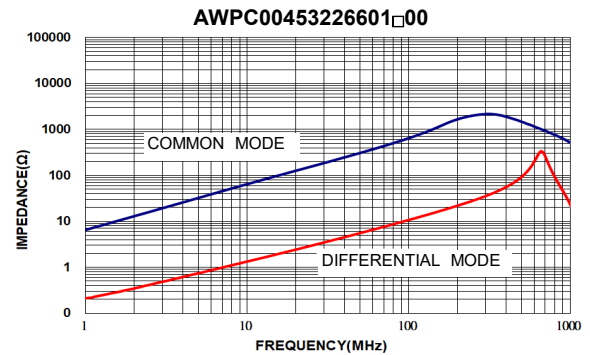
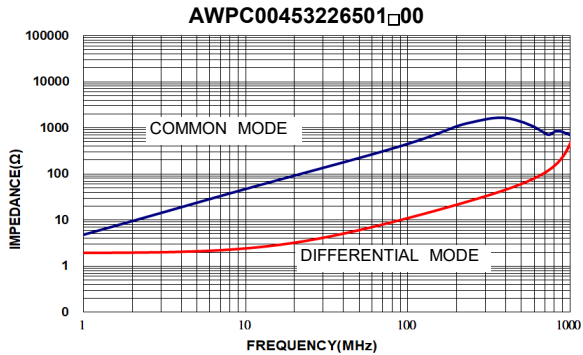
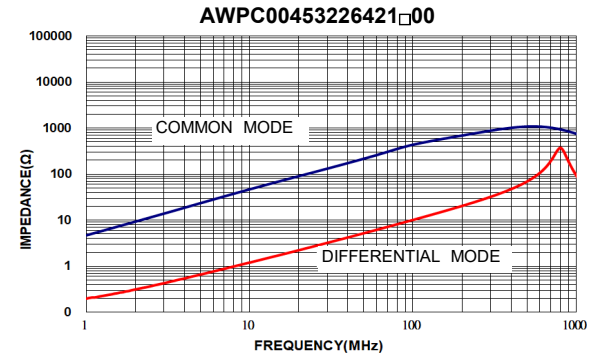
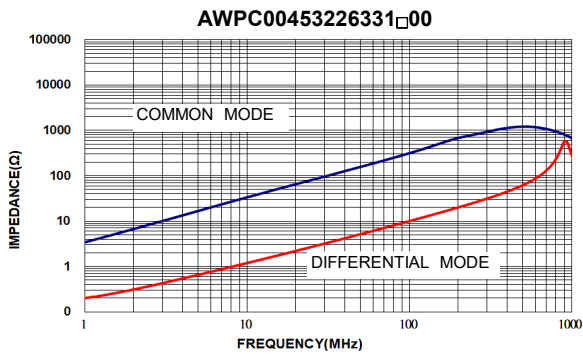
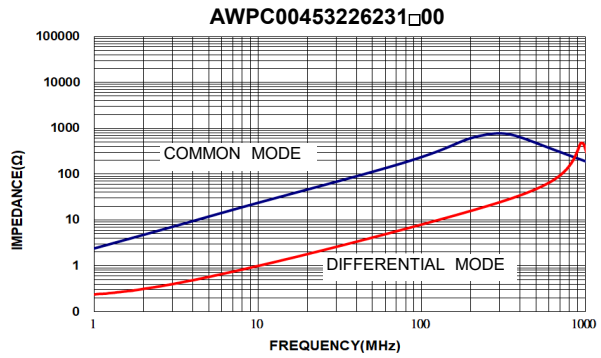
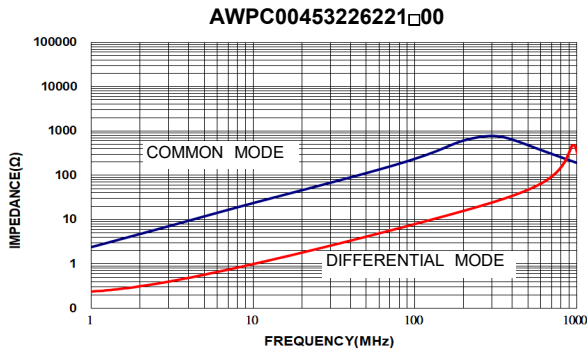
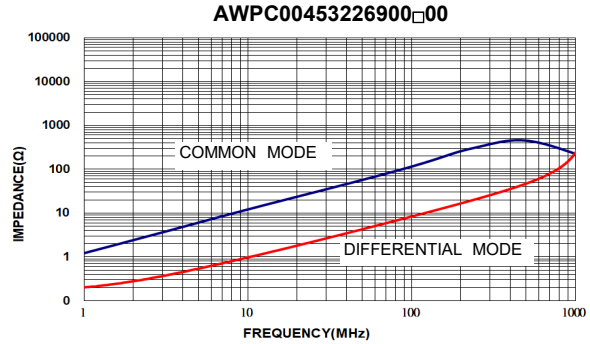
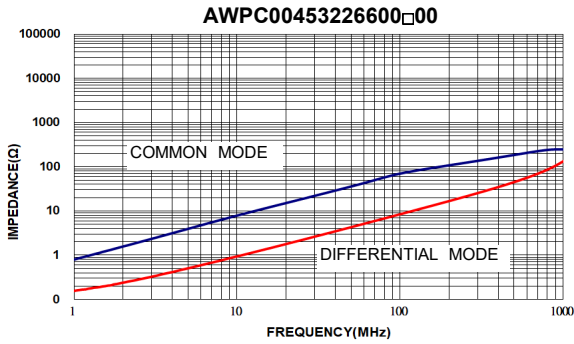
## 12 Note:

1. Please make sure that your product has been evaluated and confirmed against your specifications when our product is mounted to your product.
2. Do not knock nor drop.
3. All the items and parameters in this product specification have been prescribed on the premise that our product is used for the purpose, under the condition and in the environment agreed upon between you and us. You are requested not to use our product deviating from such agreement.
4. The storage period is less than 12 months. Be sure to follow the storage conditions (Temperature: 5 to 40°C, Humidity: 10 to 75% RH or less).  
If the storage period elapses, the soldering of the terminal electrodes may deteriorate.
5. Do not use or store in locations where there are conditions such as gas corrosion (salt, acid, alkali, etc.).
6. The moisture sensitivity level (MSL) of products is classified as level 1.

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**13** Graph:



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