

# COMMON MODE CHOKES PWC SERIES

## Introductions

The PWC series are wire wound common mode chokes widely used in notebooks, PC's, USB, HUB, and etc. The wire wound features advance in lower DC resistance and higher current tolerance, and much stable performance.

## Features

- \* Operating temperature -40°C to +85°C
- \* Excellent solderability and resistance to soldering heat.
- \* Suitable for flow and reflow soldering.
- \* Good dimensions, high reliability, and easy surface mount assembly.
- \* Consisting of 0805 and 1206 sizes.

## Part Number Code

**PWC**   **0805**   **H**   **T**   **900**   **S**   □ □  


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**1**
**2**
**3** TAPING
 **4**
**5** Internal Code

### 1 Product Type

### 2 Chip Dimension

Size (inch) mm	Length (L) (inch) mm	Width (W) (inch) mm	Thickness (H) (inch) mm	Terminal (S) (inch) mm	Terminal (T) (inch) mm
0805 HT 201210	(0.039 ± 0.004) 2.00 ± 0.10	(0.047 ± 0.004) 1.20 ± 0.10	(0.039 ± 0.004) 1.00 ± 0.10	(0.018 ± 0.004) 0.45 ± 0.10	(0.016 ± 0.004) 0.40 ± 0.10
0805 ST 201212	(0.079 ± 0.004) 2.00 ± 0.10	(0.047 ± 0.004) 1.20 ± 0.10	(0.047 ± 0.004) 1.20 ± 0.10	(0.018 ± 0.004) 0.45 ± 0.10	(0.016 ± 0.004) 0.40 ± 0.10
1206 ST 321619	(0.126 ± 0.004) 3.20 ± 0.10	(0.063 ± 0.004) 1.60 ± 0.10	(0.075 ± 0.004) 1.90 ± 0.10	(0.024 ± 0.004) 0.60 ± 0.10	(0.024 ± 0.004) 0.60 ± 0.10

Drawings are in following pages

### 3 Material Type

S : With magnetic shield

H : Epoxy coating

### 4 Inductance Value

900 = 90Ω

161 = 160Ω

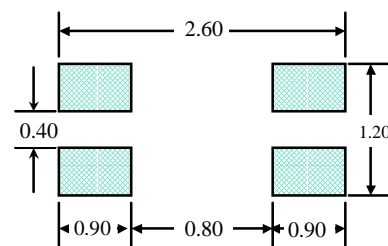
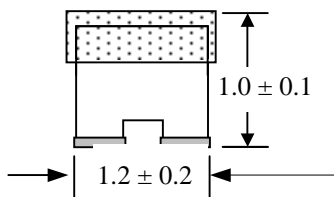
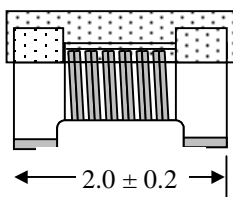
### 5 Tolerance

S = ± 25%

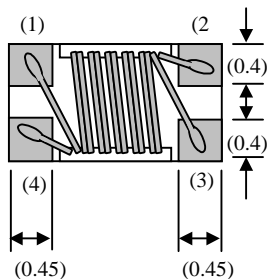
T = ± 30%


**COMMON MODE CHOKE  
WIRE WOUND TYPE**

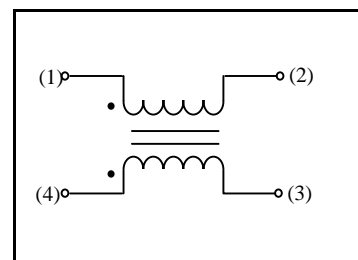
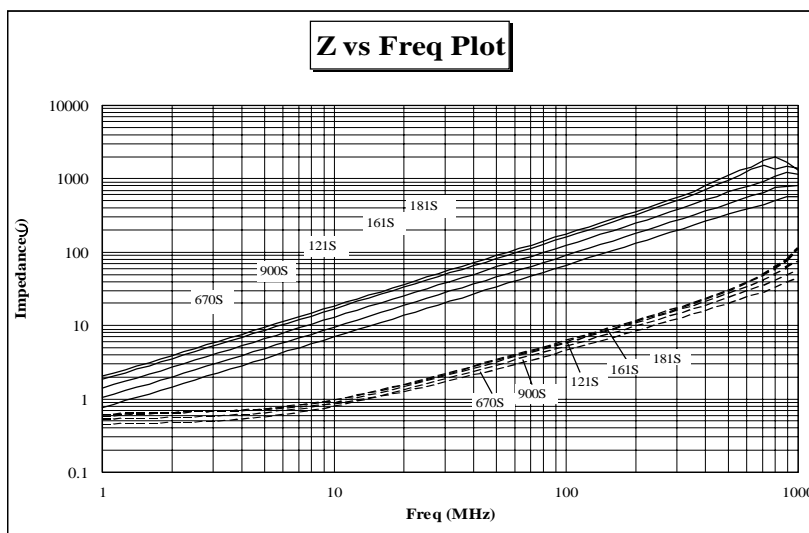
**PWC 0805 (2012) H SERIES**



RECOMMENDED PCB PATTERN



Remark :  : Electrode  
( ) : Reference Value  
Unit: m/m



EQUIVALENT CIRCUIT

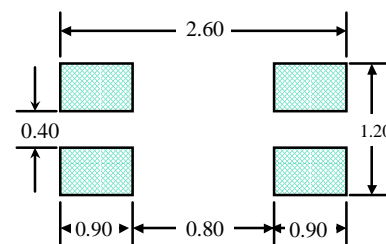
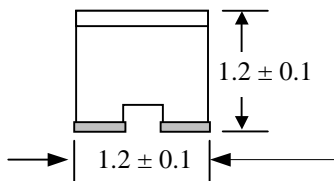
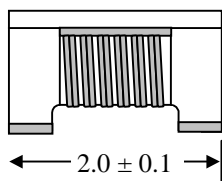
**Specification**

Part Number	Common Mode <sup>1</sup> Impedance (Ω) at 100MHz	Rated Voltage V (DC)	Withstanding Voltage V (DC)	Rated <sup>2</sup> Current max (MA)	DC Resistance max (Ω)	Insulation Resistance min (MΩ)
PWC0805HT670S	67	50	125	330	0.35	10
PWC0805HT900S	90	50	125	300	0.40	10
PWC0805HT121S	120	50	125	280	0.45	10
PWC0805HT181S	180	50	125	250	0.50	10

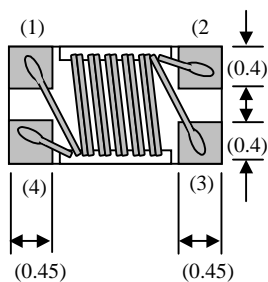
1. Impedance is measured in HP4287A.  
2. For 15 °C rise.

**COMMON MODE CHOKE  
WIRE WOUND TYPE**

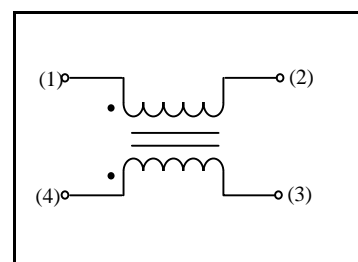
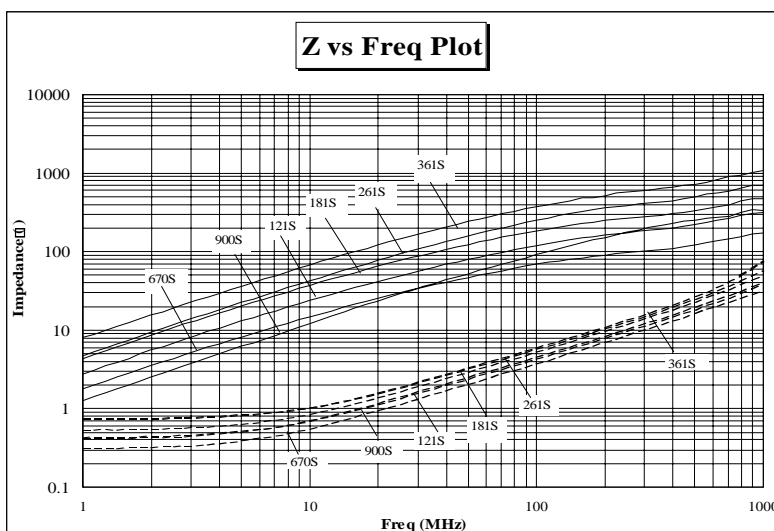
**PWC 0805 (2012) S SERIES**



RECOMMENDED PCB PATTERN



Remark : : Electrode  
( ) : Reference Value  
Unit: m/m



EQUIVALENT CIRCUIT

**Specification**

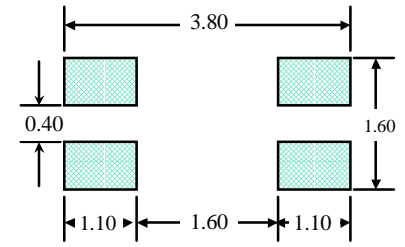
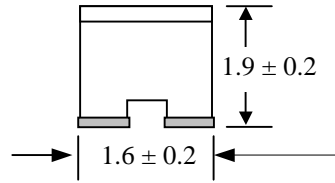
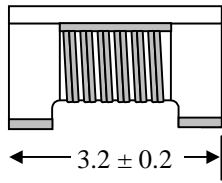
Part Number	Common Mode <sup>1</sup> Impedance (Ω) at 100MHz	Rated Voltage V (DC)	Withstanding Voltage V (DC)	Rated <sup>2</sup> Current max (MA)	DC Resistance max (Ω)	Insulation Resistance min (MΩ)
PWC0805ST670S	67	50	125	400	0.25	10
PWC0805ST900S	90	50	125	330	0.35	10
PWC0805ST121S	120	50	125	370	0.30	10
PWC0805ST181S	180	50	125	330	0.35	10
PWC0805ST261S	260	50	125	300	0.40	10
PWC0805ST361S	360	50	125	280	0.45	10

1. Impedance is measured in HP4287A at frequency of 100MHz.

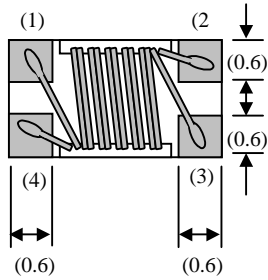
2. For 15 °C rise.

**COMMON MODE CHOKE  
WIRE WOUND TYPE**

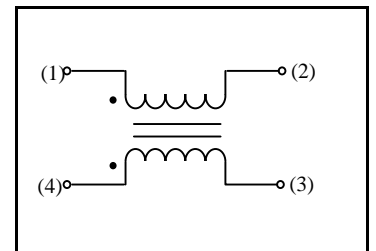
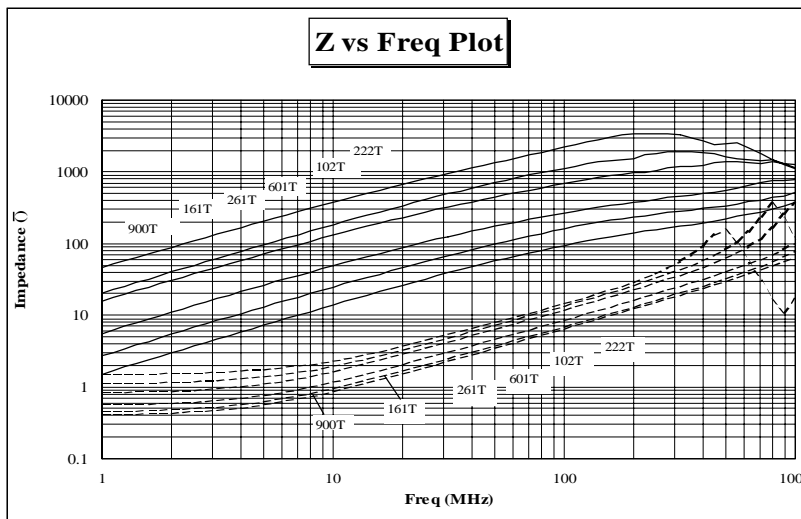
**PWC 1206 (3216) S SERIES**



RECOMMENDED PCB PATTERN



Remark : : Electrode  
( ) : Reference Value  
Unit: m/m



EQUIVALENT CIRCUIT

**Specification**

Part Number	Common Mode <sup>1</sup> Impedance (Ω)	Rated Voltage V (DC)	Withstanding Voltage V (DC)	Rated <sup>2</sup> Current max (MA)	DC Resistance max (Ω)	Insulation Resistance min (MΩ)
PWC1206ST900S	90	50	125	370	0.3	10
PWC1206ST161S	160	50	125	340	0.4	10
PWC1206ST261S	260	50	125	310	0.5	10
PWC1206ST601S	600	50	125	260	0.8	10
PWC1206ST102S	1000	50	125	230	1.0	10
PWC1206ST222S	2200	50	125	200	1.2	10

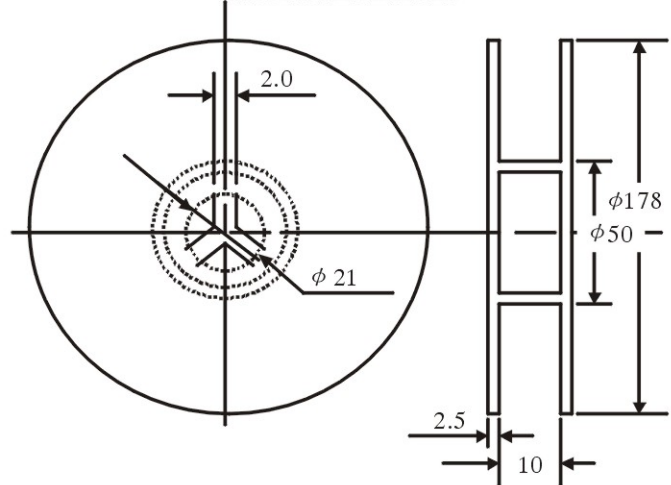
1. Impedance is measured in HP4287A at frequency of 100MHz.  
2. For 15 °C rise.

# PACKAGING INFORMATION

## Packing Quantity

TYPE	PCS / REEL
PWC0805	2,000
PWC1206	2,000

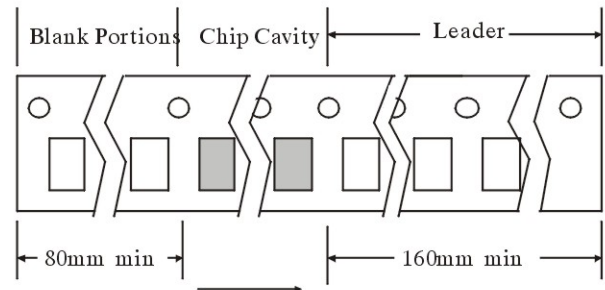
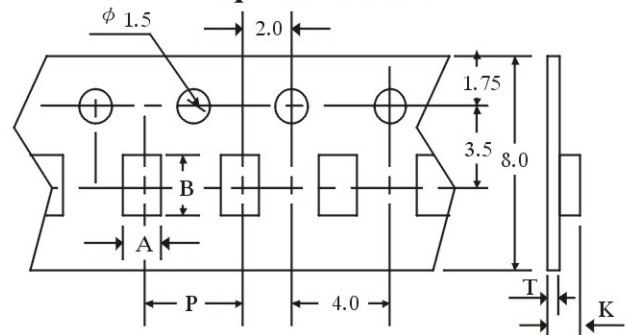
## Reel Dimensions



## Tape Dimensions (unit:m/m)

TYPE	Chip Cavity		Insert Pitch	Tape Thickness		Tape Width
	A	B	P	K	T	W
	PWC 0805HT	1.48	2.33	4.00	1.08	0.30
PWC0805ST	1.42	2.25	4.00	1.30	0.30	8.00
PWC1206ST	1.90	3.50	4.00	2.10	0.20	8.00

## Tape Dimensions



Direction of tape feed

## Top Tape Strength

The top tape requires a peel-off force of 0.2 to 0.7N in the direction of the arrow as illustrated below.

