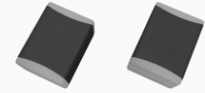


# COIL SPECIFICATION



ZenithTek

Brand **ZenithTek**  
 Product Series Code **ZPFLC - Series**  
 File Version **V0**  
 Description **Multilayer Chip Power Inductor**



## Features

- Multilayer Construction with Low Profile Package
- High Rated Current
- Low DC Resistance
- Halogen Free, Lead Free, RoHS and REACH Compliance

## Applications

- DC to DC Converter
- Computing, Mobile, Networking
- IoT, Gaming, Audio Devices
- Industrial PC, Storage Devices

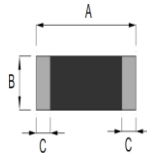
## Product Identification

**ZPFLC - 0805 - 2R2 M**

1            2            3            4

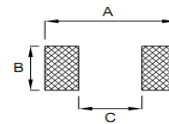
- 1.Product Code:  
ZPFLC = ZenithTek Code.
- 2.Dimension Code:  
0805 = 2.00 \* 1.25 \* 0.85 mm.
- 3.Inductance Code:  
2R2 = 2.2μH.
- 4.Tolerance Code:  
M = 20%.

## Dimension (Unit: mm)



Type	A	B	C	D
ZPFLC-0805	2.00±0.3	1.25±0.2	0.50±0.3	0.85±0.2
ZPFLC-0806	2.00±0.3	1.60±0.2	0.50±0.3	0.90±0.1
ZPFLC-1008	2.50±0.2	2.00±0.3	0.50±0.3	0.90±0.1

## Land Pattern (Unit: mm)



Type	A(Ref.)	B(Ref.)	C(Ref.)
ZPFLC-0805	2.4~3.6	0.9~1.6	0.8~1.2
ZPFLC-0806	2.4~3.6	1.2~2.0	0.8~1.2
ZPFLC-1008	2.2~3.4	1.8~2.2	1.0~1.4

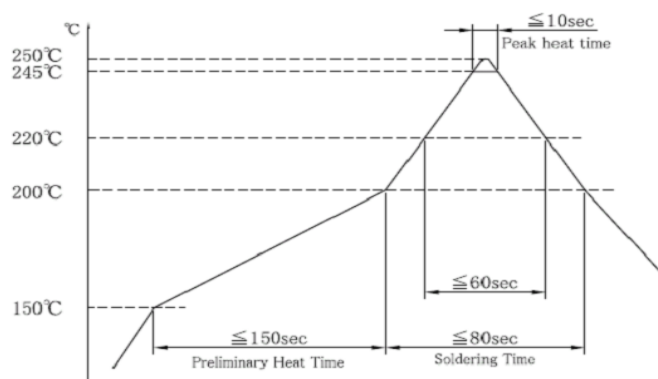
## Product Structure



## Schematic



## Reflow Heat Endurance



## Operating & Storage Conditions

Operating Temp. : -40°C~+85°C (including self-temp. rise)  
 Storage Temp. : -40°C~+85°C (for PCBA)

## Standard & Atmospheric Conditions

Ambient Temp. : 20°C±15°C / Relative Humidity : 65±20%.  
 If there may be any doubt on the result, measurement shall be made within the following limits :  
 Ambient Temp. : 20°C±2°C / Relative Humidity : 65±5%.

## Test Equipment

HP4291B+HP16192A or equivalent. - L  
 HP4284A, HOKIO3532-50 or equivalent. - IDC.  
 HP4338B or equivalent. - DCR.

# COIL SPECIFICATION



**Brand** ZenithTek  
**Product Series Code** ZPFLC - Series  
**File Version** V0  
**Description** Multilayer Chip Power Inductor



## Electrical Characteristic

Part Number	Inductance (μH)	Tolerance (%)	Test Freq. (MHz)	S.R.F (MHz)/(Min.)	DCR (Ω)/(±25%)	Temperature Rise Current (mA)/(Max.)	Saturation Current (mA)/(Typ.)
ZPFLC-0805-2R2M	2.20	20	1	50	0.18	1300	300
ZPFLC-0805-4R7M	4.70	20	1	50	0.30	900	180

Note 1: Tolerance Code: M = ±20%.

Note 2: Temperature Rise Current is direct electric current as chip surface temperature rose just 40°C against chip initial surface temperature.

Note 3: Saturation Current is the value of DC current as inductance L (μH) decreased just 30% against initial value.

# COIL SPECIFICATION



**Brand** ZenithTek  
**Product Series Code** ZPFLC - Series  
**File Version** V0  
**Description** Multilayer Chip Power Inductor



## Electrical Characteristic

Part Number	Inductance (μH)	Tolerance (%)	Test Freq. (MHz)	S.R.F (MHz)/(Min.)	DCR (Ω)/(±25%)	Temperature Rise Current (mA)/(Max.)	Saturation Current (mA)/(Typ.)
ZPFLC-0806-1R0M	1.00	20	1	120	0.14	1100	900
ZPFLC-0806-2R2M	2.20	20	1	70	0.22	850	600

Note 1: Tolerance Code: M = ±20%.

Note 2: Temperature Rise Current is direct electric current as chip surface temperature rose just 40°C against chip initial surface temperature.

Note 3: Saturation Current is the value of DC current as inductance L (μH) decreased just 30% against initial value.

# COIL SPECIFICATION



**Brand** ZenithTek  
**Product Series Code** ZPFLC - Series  
**File Version** V0  
**Description** Multilayer Chip Power Inductor



## Electrical Characteristic

Part Number	Inductance (μH)	Tolerance (%)	Test Freq. (MHz)	S.R.F (MHz)/(Min.)	DCR (Ω)/(±25%)	Temperature Rise Current (mA)/(Max.)	Saturation Current (mA)/(Typ.)
ZPFLC-1008-2R2M	2.20	20	1	70	0.13	1400	500
ZPFLC-1008-4R7M	4.70	20	1	45	0.28	950	250

Note 1: Tolerance Code: M = ±20%.

Note 2: Temperature Rise Current is direct electric current as chip surface temperature rose just 40°C against chip initial surface temperature.

Note 3: Saturation Current is the value of DC current as inductance L (μH) decreased just 30% against initial value.

# COIL SPECIFICATION



ZenithTek

Brand **ZenithTek**  
 Product Series Code **ZPFLC - Series**  
 File Version **V0**  
 Description **Multilayer Chip Power Inductor**



## Reliability Test

No.	Item	Specification	Test Method
1	Temperature Shock.	Appearance: No damage. Inductance: within $\pm 10\%$ of initial.	Temperature: $-40\pm 2^{\circ}\text{C} \sim +85\pm 2^{\circ}\text{C}$ Kept for 30 minutes. Transition time : 5 minutes. 100 Cycles.
2	Humidity Resistance.	Appearance: No damage. Inductance: within $\pm 10\%$ of initial.	Temperature: $40\pm 2^{\circ}\text{C}$ . Relative Humidity: 90%. Duration: 1000 +4/-0 hours.
3	High Temperature Resistance.	Appearance: No damage. Inductance: within $\pm 10\%$ of initial.	Temperature: $85\pm 2^{\circ}\text{C}$ . Duration: 1000 +4/-0 hours.
4	Low Temperature Resistance.	Appearance: No damage. Inductance: within $\pm 10\%$ of initial.	Temperature: $-40\pm 2^{\circ}\text{C}$ . Duration: 1000 +4/-0 hours.
5	Vibration test.	Appearance: No damage. Inductance: within $\pm 10\%$ of initial.	Oscillation Frequency: 10Hz to 55Hz to 10Hz in 60 seconds as a period. Total amplitude: 1.5mm. Testing Time: a period of 2 hours in each 3 mutually perpendicular directions (total of 6 hours).
6	Solderability Heat test.	Appearance: No damage. Inductance: within $\pm 10\%$ of initial.	Solder temperature: $260\pm 3^{\circ}\text{C}$ . Duration: 5 sec. Allowed reflow time: 2 times.
7	Solderability test.	90% or more of electrode area shall be coated by new solder.	Preheating: $160^{\circ}\text{C}$ , 60sec. Solder temperature: $240\pm 2^{\circ}\text{C}$ . Duration : 3 sec.
8	Flexure Strength.	No visible mechanical damage.	Flexure: 2mm. Pressurizing Speed: 0.5mm/sec. Keep time: $30\pm 1$ sec.
9	Terminal Strength.	No visible mechanical damage.	Force: 2N for 0402 series Force: 5N for 0603 series Force: 10N for 0805 series above Keep time: 5 sec , X,Y directs.
10	Dropping.	No visible mechanical damage. Inductance: within $\pm 10\%$ of initial.	Drop component 10 times on a concrete floor from a height of 100cm.

# COIL SPECIFICATION



ZenithTek

Brand

ZenithTek

Product Series Code

ZPFLC - Series

File Version

V0

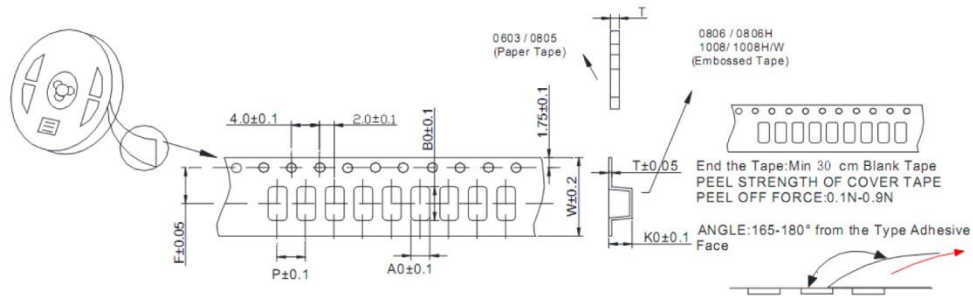
Description

Multilayer Chip Power Inductor



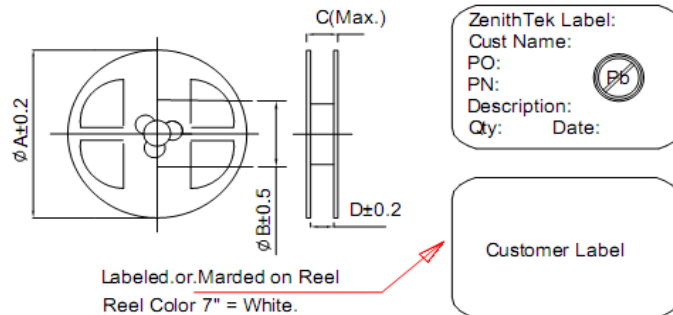
## Package

### Taping Dimension (mm)



Size(mm)	W	P	A0	B0	K0	T	F
ZPFLC-0805	8.00	4.00	1.50	2.30	-	1.10	3.50
ZPFLC-0806	8.00	4.00	1.90	2.30	1.45	0.3	3.50
ZPFLC-1008	8.00	4.00	2.30	2.80	1.45	0.3	3.50

### Reel Dimension (mm)



Size(mm)	A	B	C	D	Reel/Size	Qty./Size
ZPFLC-0805	178	58	12.5	8.4	7"	4000 Pcs
ZPFLC-0806	178	58	14.4	8.4	7"	3000 Pcs
ZPFLC-1008	178	58	14.4	8.4	7"	3000 Pcs

### Box Dimension (mm)

