

# PRODUCT SPECIFICATION

新弘智

SPEC. NO: T-0602-154D

DATE: Aug.7,2018

CUSTOMER'S PRODUCT NAME:

EMTEK PRODUCT NAME:

CMF4532L-Series

THIS SPECIFICATION IS:

- FULLY ACCEPTED  
 DENIED  
 ACCEPTED UNDER THE FOLLOWING CONDITIONS



SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

NAME(PRINT): \_\_\_\_\_

TITLE: \_\_\_\_\_

 **EMTEK CO., LTD.**

FACTORY:  
39,Chingao Rd.,(305)Hsinpu,  
Hsinchu Hsien,Taiwan,R.O.C  
TEL: 03-5894-433  
FAX: 03-5894-523

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## 1. Scope

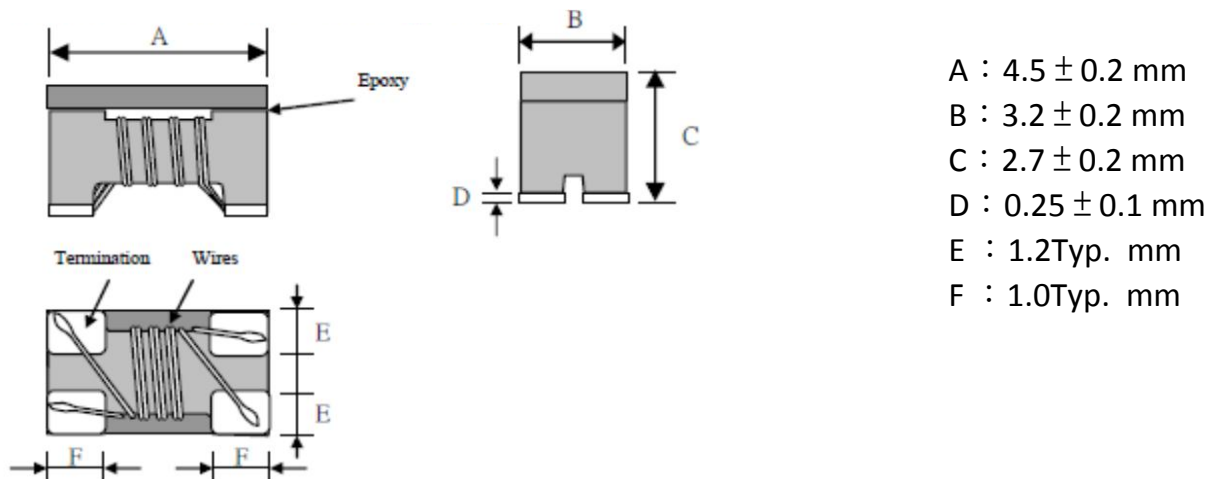
This specification applies ferrite Chip common mode filters CMF4532L-Series to be delivered to user.

## 2. Product Identification

CMF 4532 L - 101 - 2P - T  
 (1) (2) (3) (4) (5) (6)

- (1) Product name
- (2) Shapes and dimensions
- (3) Application
- (4) Inductance 【 at 100KHz 】  
101:100 (uH)
- (5) Number of Line  
2P:2-Line
- (6) For Customer Design

## 3. Shapes and Dimensions [Dimensions in mm]



Drawn by	Checked by	Approved by
Cindy Jun. 21. 2018	Zhengy Jun. 21/2018	Sun Jun. 21. 2018

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## 4. Electrical Characteristics

### 4-1 Electrical Spec.

Our Product Part Number	Z( $\Omega$ ) Common Mode Impedance at 10MHz		L( $\mu$ H) Common Mode Inductance at 100KHz	DCR( $\Omega$ ) Max.	Idc(mA) Max.	Rated Voltage Vdc (V)Typ.	Insulation Resistance IR (M $\Omega$ )Min.
	min.	typ.	(+50%/-30%)				
CMF4532L-1R0-2P-T	min.	50	(+50%/-30%)	0.12	1200	50	10
	typ.	60	1				
CMF4532L-110-2P-T	min.	300	(+50%/-30%)	0.6	250	50	10
	typ.	600	11				
CMF4532L-220-2P-T	min.	500	(+50%/-30%)	1.0	200	50	10
	typ.	1200	22				
CMF4532L-510-2P-T	min.	1000	(+50%/-30%)	1.0	200	50	10
	typ.	2800	51				
CMF4532L-101-2P-T	min.	2000	(+50%/-30%)	2.0	150	50	10
	typ.	5800	100				
CMF4532L-201-2P-T	min.	/	(+50%/-30%)	4.5	100	50	10
	typ.	/	200				

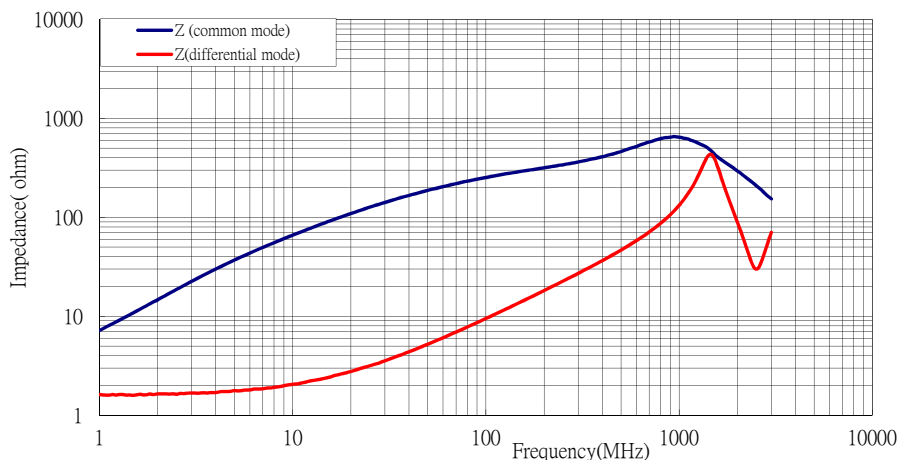
Operating temperature : -40 to 125°C

Storage temp. and humidity : -40 to +85°C , 70%RH max

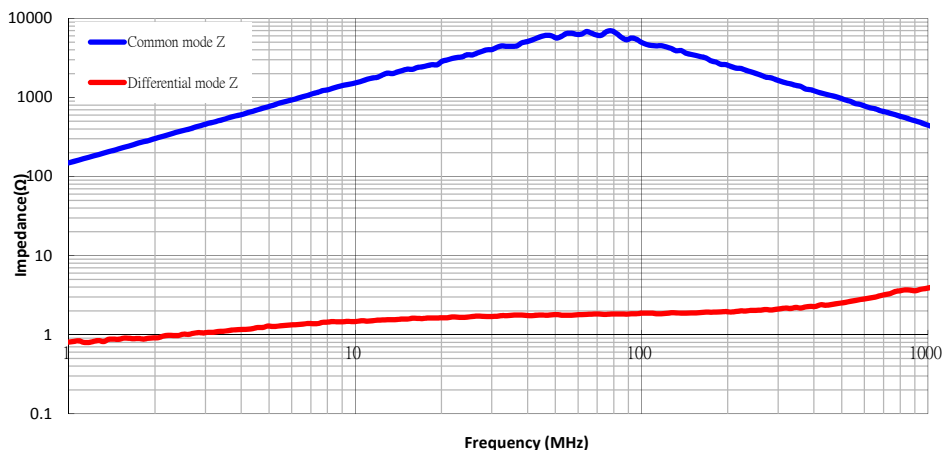
### 4-2 Characteristics(Reference)

#### 4-2-1 Z v.s. Freq.

CMF4532L-1R0-2P-T



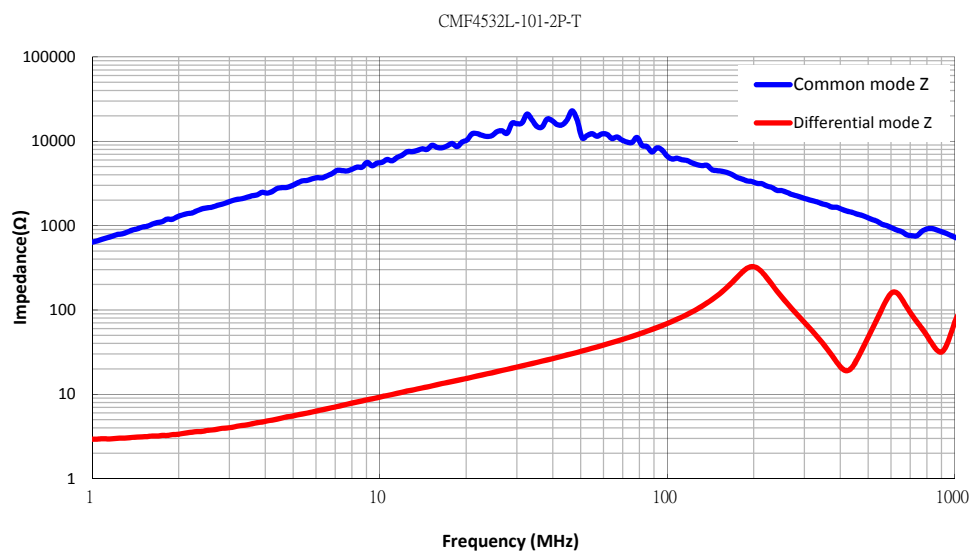
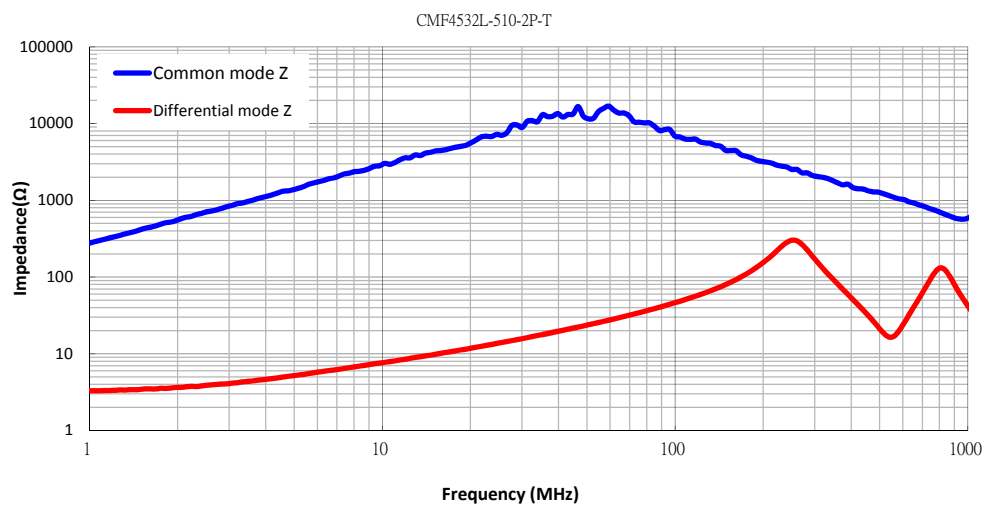
CMF4532L-220-2P-T





## 4-2 Characteristics(Reference)

## 4-2-1 Z v.s. Freq.



# PRODUCT SPECIFICATION

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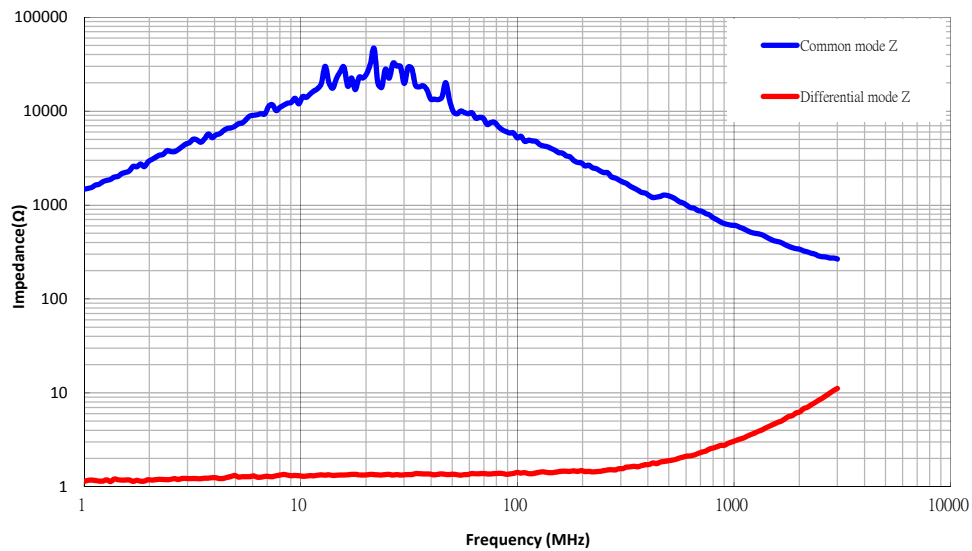
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## 4-2 Characteristics(Reference)

### 4-2-1 Z v.s. Freq.

CMF4532L-201-2P-T



# PRODUCT SPECIFICATION

SPEC. NO.

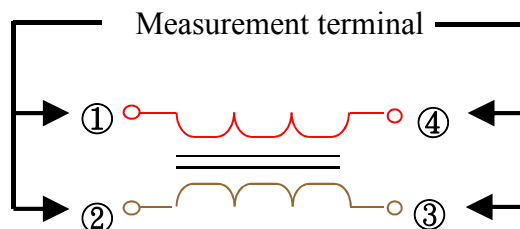
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## 4-3 Test Equipment

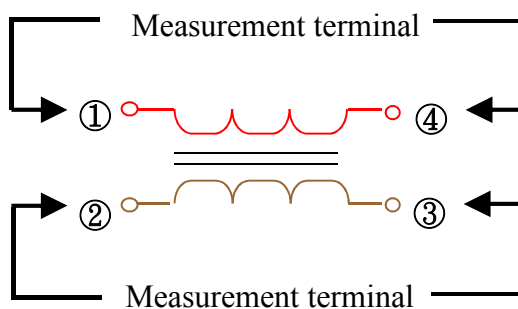
### 4-3-1 Inductance

Measured by using Agilent HP4284A Precision LCR Meter.



### 4-3-2 DC Resistance

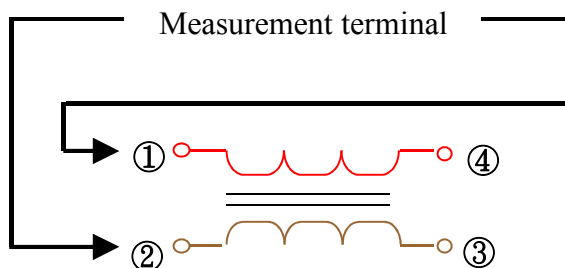
Measured by using Chroma 16502 mill ohm meter.



### 4-3-3 Insulation Resistance

Measured by using Chroma 19073

Measurement voltage : 50v ,Measurement time : 60 sec.

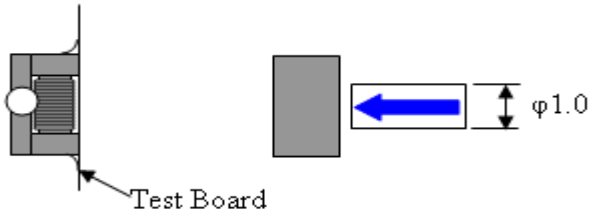
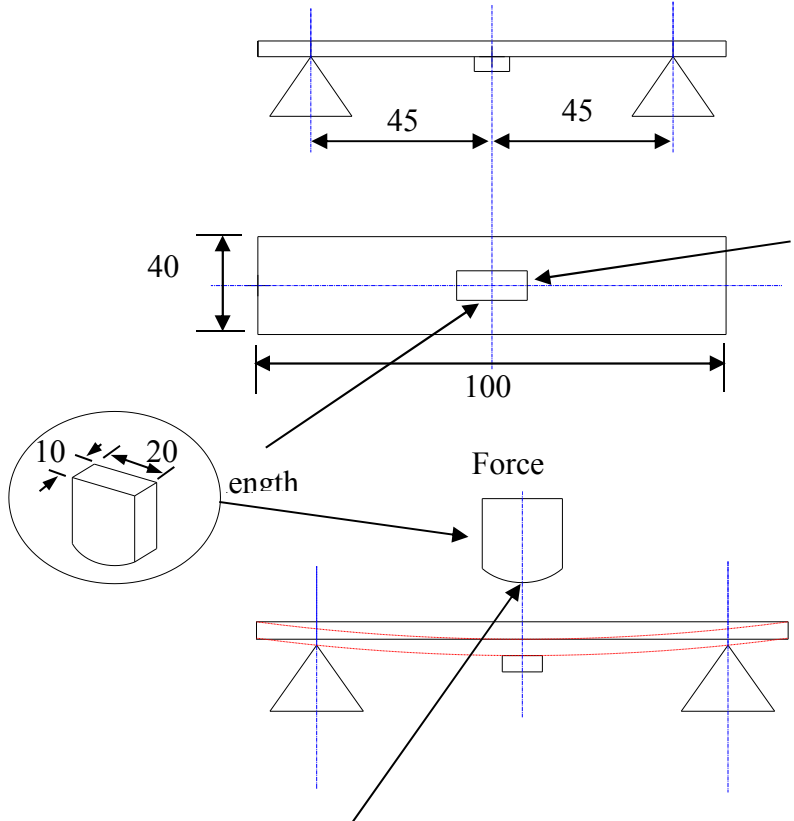


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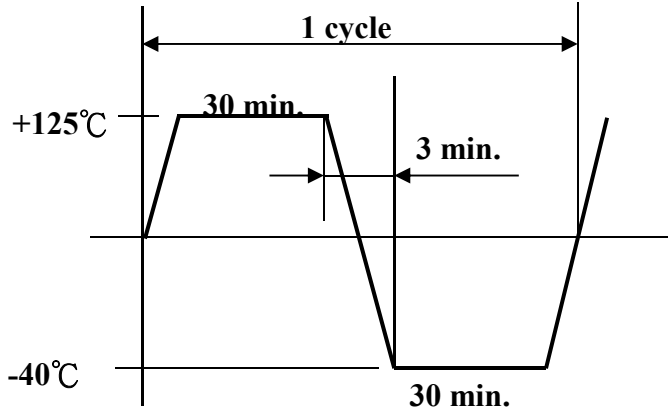
## 5. Reliability Test

Operating temperature : -40 to +125°C		Storage temp and humidity : 20~25°C ,60%RH max.
Item	Specifications	Test conditions
Solder ability	It can be connected on the Recommendation soldering condition	Apply cream solder to the test circuit board . It is mounted on the recommendation soldering condition. Dip pads in flux and dip in solder pot( 96.5 Sn/3.5 Ag solder) at 255°C ±5°C.
Terminal strength	The terminal electrode and the ferrite must not be damaged.	Solder a chip to test substrate , and then laterally apply a load 1.8Kg in the arrow direction. 
Strength on pc board bending	The terminal electrode and the ferrite must not be damaged.	Soldering a chip to a test substrate , bend the substrate by 2mm and then return.  Dimensions in mm R10 Test board : Glass base epoxy multiplayer board pc board pattern. PC board pattern : Recommended PC board pattern.

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Item	Specifications	Test conditions
High temperature resistance	Appearance : Ferrite shall not be damaged. initial value. insulation resistance: >10(MΩ) DC resistance : standard value	Temperature : +125±2°C Applied voltage : Rated voltage Applied current : Rated current Testing time : 500±12 hours Measurement : After placing for 24 hours min.
Humidity resistance	inside.	Temperature : +85±2°C Humidity : 90 to 95%RH Applied current : Rated current Applied voltage : Rated voltage Testing time : 500±12 hours Measurement : After placing for 24 hours min.
Thermal shock		Temperature : -40°C ,+125°C kept stabilized for 30 minutes each. Cycle : 100 cycle Measurement : After placing for 24 hours min. 
Low temperature resistance		Temperature : -40±2°C Testing time : 500±12 hours Measurement : After placing for 24 hours min.
Vibration	Appearance : Ferrite shall not be damaged.	Frequency : 10 to 50 Hz Amplitude : 1.52 mm Dimension and times : X ,Y and Z directions for 2 hours each.



# PRODUCT SPECIFICATION

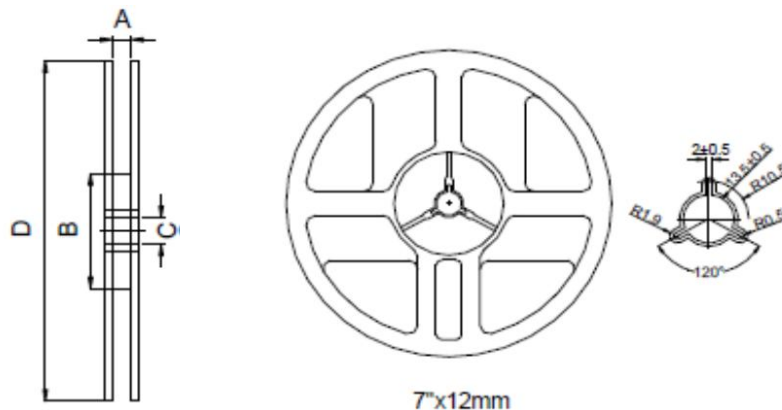
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## 6. Reel Dimension & Tape Dimension

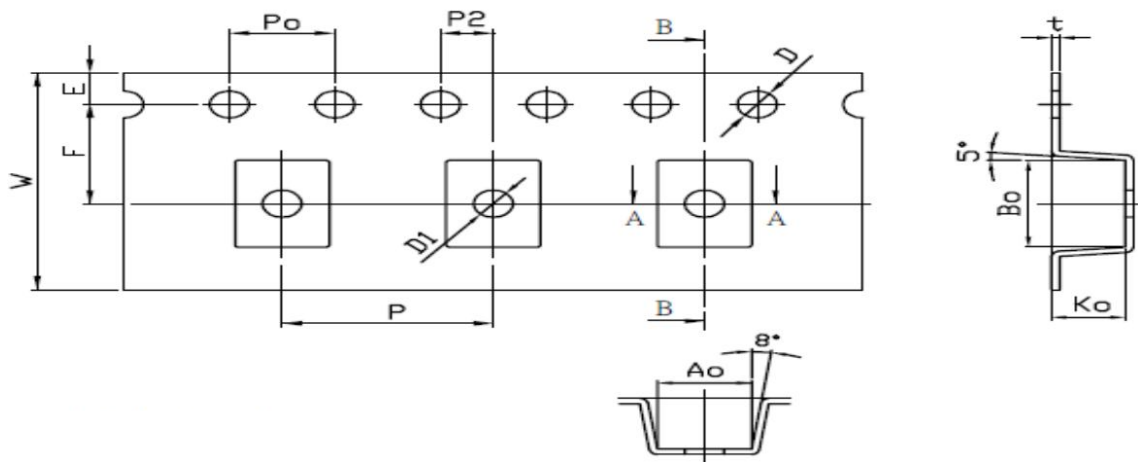
### 6-1 Reel Dimensions



Unit: mm

A	B	C	D
13.2±0.5	60±2	13±0.5	180±2

### 6-2 Tape Dimensions



Symbol	W	P	E	F	P2	D	D1	Po	10Po
Dimension	12.00	8.00	1.75	5.50	2.00	1.50	1.50	4.00	40.00
SPEC.	±0.1	±0.1	±0.1	±0.05	±0.05	+0.10 -0.00	±0.1	±0.1	±0.2
Symbol	Ao	Bo	Ko	t					
Dimension	3.57	4.80	2.80	0.30					
SPEC.	±0.1	±0.1	±0.1	±0.05					

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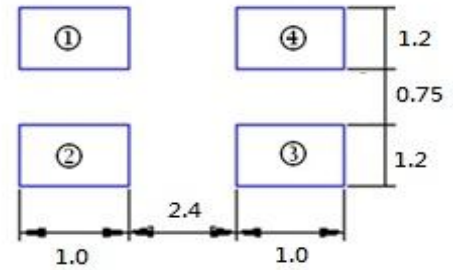
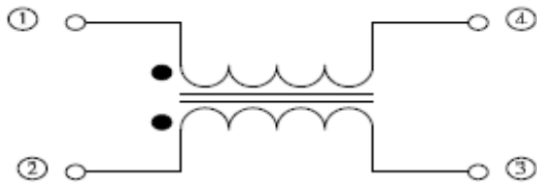
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## 6-3 Packaging Quantity

500pcs/reel

## 7. Equivalent Circuit & Recommended Footprint



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