■ Features

- Use flat wire in it and could endure higher current(5 Amps).
- It is mounted in the boards with surface mounting equipment.

■ Applications

- Computer products.(Motherboard,Hard Disk,TV card,Etc.)
- Communication product.(Cordless Phone,Etc.)
- Modem,OA products,power supplier,Etc.
- Countermeasures for complying with CE,FCC VDE or VCCI radialiated emissions.

■ Product Identification

YIPH □□□□□□ □ – □□□ □

(1) (2) (3) (4) (5)

(1)： Type

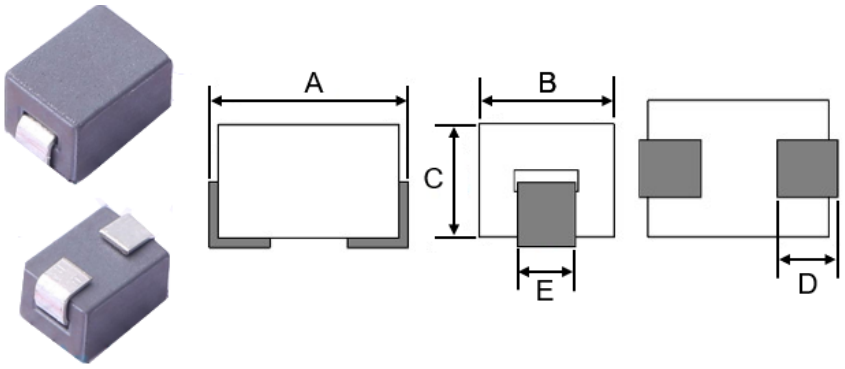
(2)： Dimensions

(3)： Material Code

(4)： Impedance

(5)： Taping and Reel

■ Shapes and Dimensions (Unit：mm)

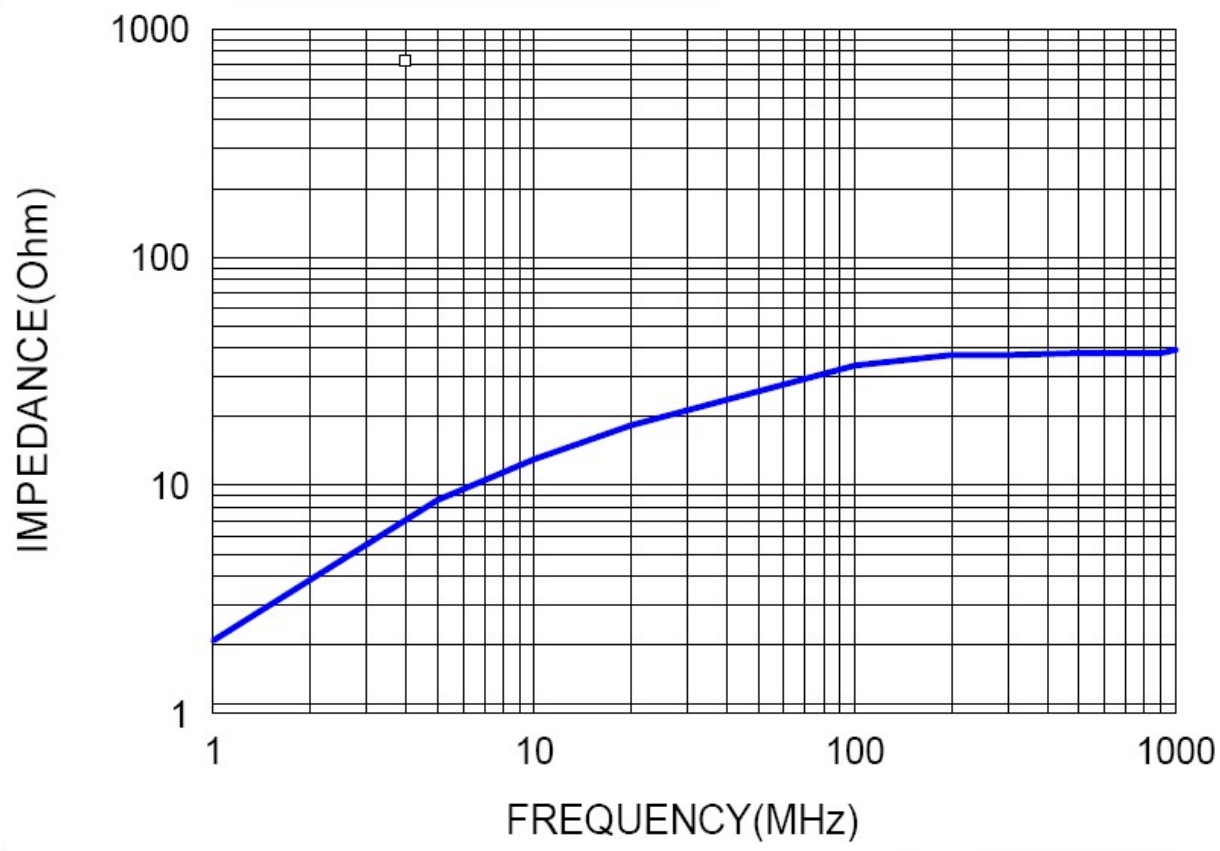


Type	A	B	C	D	E
YIPH323023W	3.08+0.10/-0.15	2.90±0.10	2.20±0.10	0.80±0.20	0.85±0.10

■ Electrical requirements

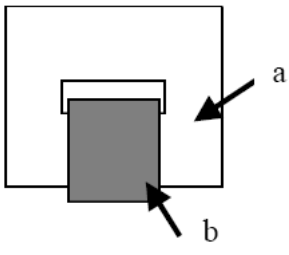
Part Number	Electrical Requirements 1		Electrical Requirements 1		DCR Max. (mΩ)	Rated Current	
	Impedance (Ω)	Test Frequency (MHz)	Impedance (Ω)	Test Frequency (MHz)		ΔT=40℃ Typ.	Test Frequency (MHz)
YIPH323023W-390T	20±25%	25	39±25%	100	0.6	21.0	1.0

■ Typical Impedance v.s. Frequency Curve



■ Material List

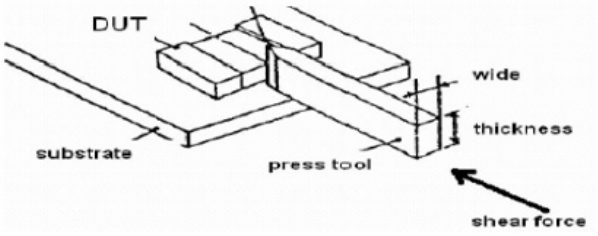
No.	Description	Specification
a	Core	Ferrite Core
b	Wire	Electroplated nickel-tin flat copper wire



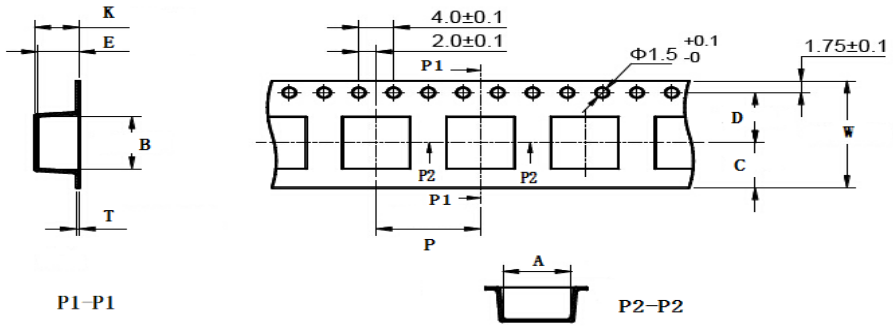
■ Reliability and Test Condition

Item	Performance	Test Condition
Operating temperature	-40~+125℃(Including self-temperature rise)	
Storage temperature	-40~+125℃(on board)	
Electrical Performance Test		
Z(Impedance)	Refer to standard electrical characteristics list	CH3302,CH1320,CHA113009,Aglient E4991A,Agilent 16197A LCR Meter
DCR		CH16502,Agilent 33420A Micro-Ohm Meter.
Heat Rated Current(Irms)	Approximately ΔT≤40℃	Heat Rated Current(Irms) will cause the coil temperature rise ΔT(℃) without core loss. 1,Applied the allowed DC current(keep 1 min.). 2.Temperature measured by digital surface thermometer
Reliability Test		
Life Test	Appearance：No damage. Inductance：within±10% of initial value Q:Shall not exceed the specification value. RDC:within ±15% of initial value and shall not exceed the specification value.	Preconditioning:Run through IR reflow for 2 times. (IPC/JEDECJ-STD-020D Classification Reflow Profiles) Temperature:125±2℃（Inductor） Applied current:rated current Duration:1000±12hrs Measured at room temperature after placing for 24±2 hrs
Load Humidity		Preconditioning:Run through IR reflow for 2 times. (IPC/JEDECJ-STD-020D Classification Reflow Rrofiles. Humidity:85±2% R.H, Temperature:85℃±2℃ Duration:1000hrs Min. with 100% rated current Measured at room temperature after placing for 24±2 hrs
Moisture Resistance		Preconditioning:Run through IR reflow for 2 times. (IPC/JEDECJ-STD-020D Classification Reflow Rrofiles. 1.Baked at 50℃ for 25 hrs,measured at room temperature after Placing for 4 hrs. 2.Raise temperature to 65±2℃ 90-100% RH in 2.5 hrs,and Keep 3 hours,cool down to 25℃ in 2.5hrs 3.Raise temperature to 65±2℃ 90-100% RH in 2.5 hrs,and Keep 3 hours,cool down to 25℃ in 2.5hrs,keep at 25℃ for 2 hrs then keep at -10℃ for 3 hrs 4.Keep at 25℃ 80-100%RH for 15min and vibrate at the frequency of 10 to 55 Hz to 10 Hz,measure at room temperature affer placing for 1 ~ 2hrs.
Thermal shock		Preconditioning:Run through IR reflow for 2 times. (IPC/JEDECJ-STD-020D Classification Reflow Rrofiles. Condition for 1 cycle Step1：-40±2℃ 30±5min Step2：25±2℃ ≤0.5min Step3：125±2℃ 30±5min Number of cycles:500 Measured at room temperature after placing for 24±2 hrs
Vibration		Oscillation Frequency:10 ~ 2K ~ 10Hz for 20 minutes Equipment:Vibration checker Total Amplitude:1.52mm±10% Testing Time:12 hours(20 minutes,12 cycles each of 3 orientations).

■ Reliability and Test Condition

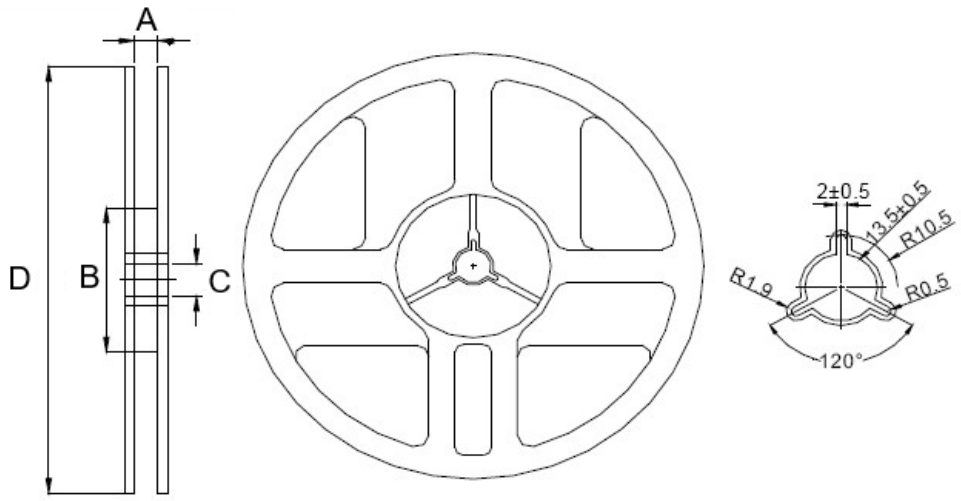
<table>
<tr><th>Item</th><th>Performance</th><th>Test Condition</th></tr>
<tr><td>Shock</td><td rowspan="2">Appearance：No damage.
Inductance：within±10% of initial value
Q:Shall not exceed the specification value.
RDC:within ±15% of initial value and shall not exceed the specification value.</td><td>
<table>
<tr><th>Type</th><th>Peak value (g's)</th><th>Normal duration (D)(ms)</th><th>Wave form</th><th>Velocity change (Vi)ft/sec</th></tr>
<tr><td>SMD</td><td>50</td><td>11</td><td>Half-sine</td><td>11.3</td></tr>
<tr><td>Lead</td><td>50</td><td>11</td><td>Half-sine</td><td>11.3</td></tr>
</table>
shocks in each direction along 3 perpendicular axes.
</td></tr>
<tr><td>Bending</td><td>Shall be mounted on a FR4 substrate of the following dimensions：
≥0805：40×100×1.2mm ＜0805：40×100×0.8mm
Bending depth：≥0805 inch(2012mm):1.2mm
＜0805 inch(2012mm):0.8mm
duration of 10 sec.</td></tr>
<tr><td>Soderability</td><td>More than 95% of the terminal electrode should be covered with solder.</td><td>Preheat：150℃，60sec.。
Solder：Sn96.5% Ag 3% Cu0.5%
Temperature：245±5℃。
Flux for lead free：Rosin.9.5%。
Dip time：4±1sec。
Depth：completely cover the termination</td></tr>
<tr><td>Resistance to Soldering Heat</td><td rowspan="2">Appearance：No damage.
Inductance：within±10% of initial value
Q:Shall not exceed the specification value.
RDC:within ±15% of initial value and shall not exceed the specification value.</td><td>Number of heat cycles:1
<table>
<tr><th>Temperature (℃)</th><th>Time(s)</th><th>Temperature ramp/immersion and emersion rate</th></tr>
<tr><td>260±5 (solder temp)</td><td>10±1</td><td>25mm/s±6mm/s</td></tr>
</table>
</td></tr>
<tr><td>Terminal Strength</td><td>Preconditioning：Run through IR reflow for 2 times.
(IPC/JEDEC J-STD-020D Classification Reflow Rrofiles.
With the component mounted on a PCB with the device to be tested,apply a force(＞0805 inch(2012mm):1kg,≤0805（2012mm):0.5kg) to the side of a device being tested.
This force shall be applied for 60+1 seconds.Also the force shall be applied gradually as not to apply a shock to the component being tested.

</td></tr>
</table>

■ Taping Dimensions(Unit:mm)



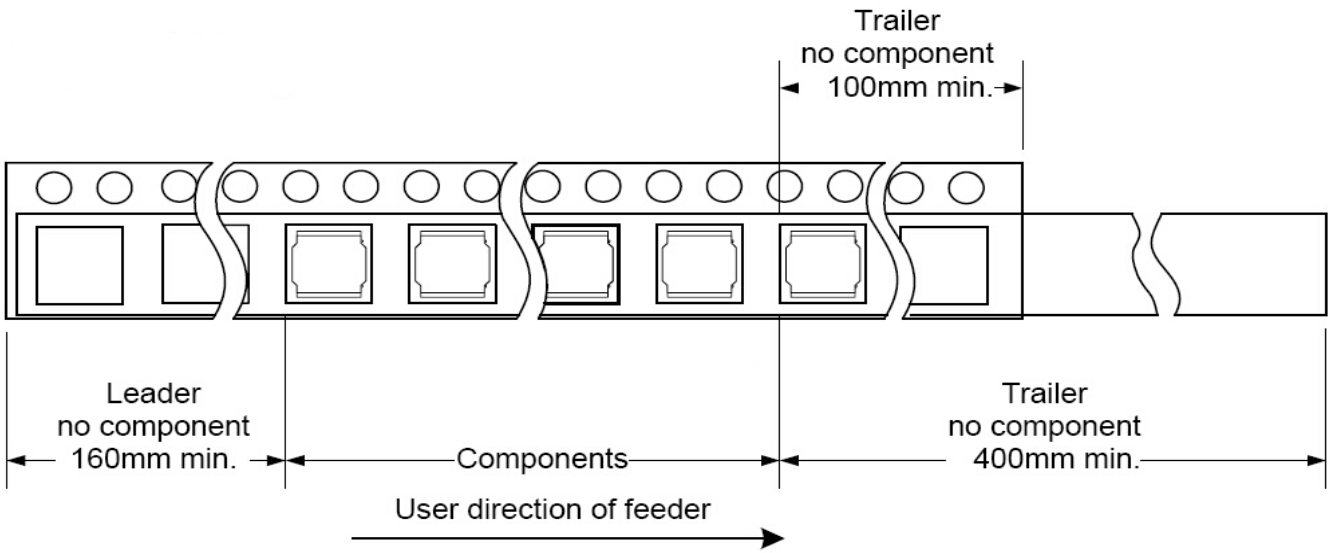
TYPE	W	A	B	C	D	E	P	K	T	MPQ
YIPH323023W	8±0.1	3.25±0.1	3.25±0.1	2.75	3.5±0.1	2.4±0.1	8.0±0.1	5.0	0.30±0.1	1000

■ Reel Dimensions(Unit:mm)

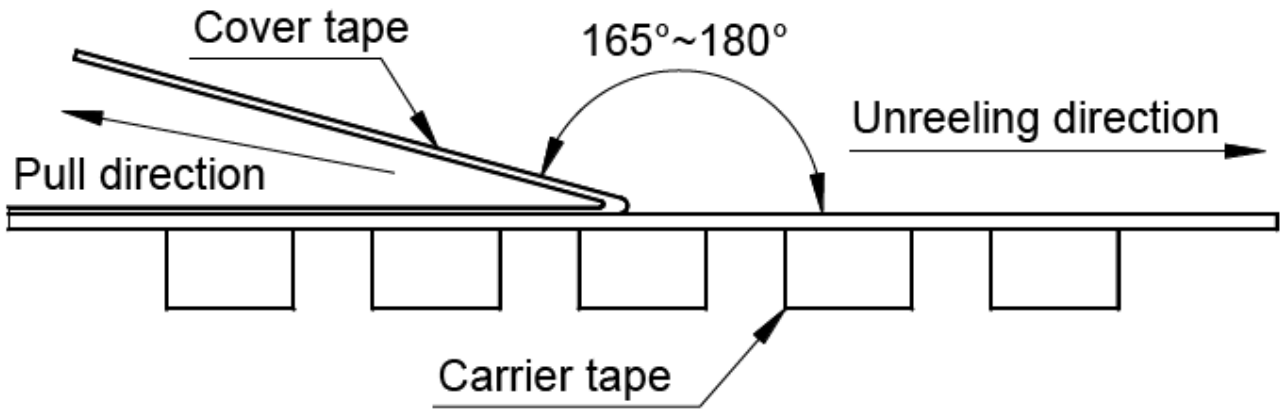


TYPE	A	B	C	D
YIPH323023W	8.4±1.0	50.0±2.0	13.5±0.80	178±2.0

■ Direction of rolling



■ Cover tape peel off condition



Cover tape peel force shall be 0.1N to 1.3N.

Reference peel speed 300±10mm/min.