# Application

Laptop, desktop and server applications

High current power supplies

Battery powered devices

**PMIC** 

### Features

RoHS compliant & halogen free

Low resistance and high current rating

Magnetic core made by high performance magnetic metal powder

### Product Identification

- ① ② ③ ④ ⑤ MLN YT10 N R68 🗆 XB
- ① Product Code
- 2 Dimensions
- ③ Inductance: R68 = 0.68 µH
- 4 Inductance Tolerance: M = ±20%, N = ±30%
- <sup>⑤</sup> Series Type: XB Type

Note: Please refer to the "Product Dimension" for detail dimensions.



### Electrical Performance

	Inductance	Pdo	(mΩ)	Heat rating	Saturation
Part number	@0A	Ruc	(11122)	current (Idc) <sup>1</sup>	current (Isat) <sup>2</sup>
	(µH)	Тур.	Max.	DC amps (A)	DC amps (A)
MLN-YT10NR68□-XB	0.68	49	59	2.16	2.43
MLN-YT10N1R0□-XB	1	68	82	1.78	1.89
MLN-YT10N1R5□-XB	1.5	95	114	1.49	1.58
MLN-YT10N2R2□-XB	2.2	136	164	1.26	1.39

### Note

Test frequency: 1MHz, 0.25V.

**Test instruments:** Inductance/saturation current: Keysight 4285A or equivalent.

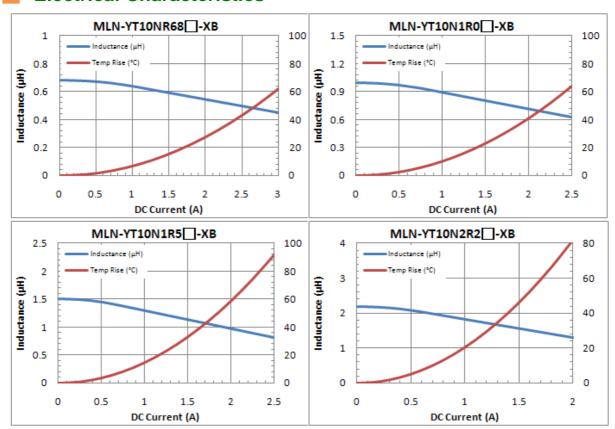
Rdc: ADEX AX1152D or equivalent.

#### Notes:

- 1. The heat rating current (ldc) will cause temperature rise approximate 40°C.
- 2. The saturation current (Isat) will cause initial inductance drop approximate 30%.
- 3. All test data is referenced at 25°C ambient.
- 4. Operating temperature range -40°C to +125°C.
- 5. Withstand voltage: 20V DC. (Based on Maglayers test method, it may not the same under different application, it is recommended to verify first.)

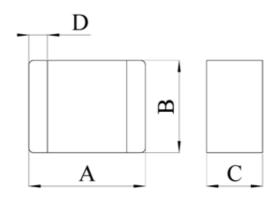


## Electrical Characteristics





# Product Dimension

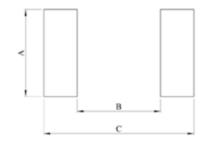


Dimension Part number	А	В	С	D
MLN-YT10NSERIES-XB	2.5 ± 0.2	2.0 ± 0.2	1.0 Max	0.6 ± 0.2

Unit: mm



# Recommended PCB Layout



Туре	YT10		
А	2.0		
В	1.2		
С	2.8		

Unit: mm

### Safety precaution

- 1. Do not make any through holes and copper pattern in the dotted line area. Except a copper pattern to the electrode.
- 2. Don't design/mount any components in contact with this product.

This power choke coil itself does not have any protective function in abnormal condition such as overload, short circuit, open conditions and etc, it shall be confirmed as the end product that there is no risk of smoking, fire, dielectric withstand voltage, insulation resistance and etc. in abnormal conditions to provide protective devices and/or protection circuit in the end product.



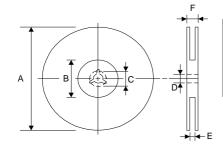
# Packaging

#### Peel-off force



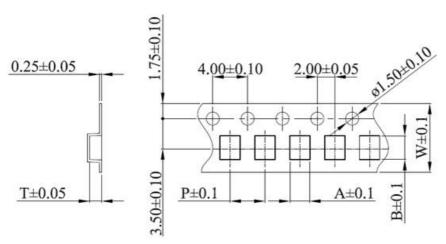
The peel off force of cover tape is 10 to 70 grams in the arrow direction.

### **Dimensions**



Туре	А	В	С	D	Е	F
8mm	178±1	60+0.5/-0	19.3±0.1	13±0.2	9±0.5	12±0.5

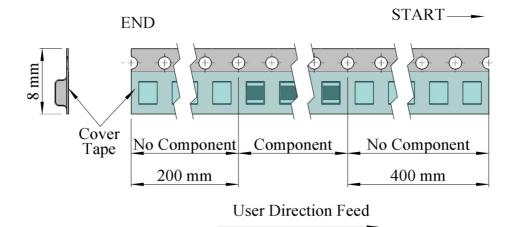
Unit: mm



TYPE	SIZE	Α	В	W	Р	T
MLN	YT10	2.27	2.74	8.0	4.0	1.2

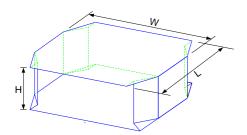
Unit: mm





**Taping quantity** 

raping quantity					
Series	YT10				
PCS/Reel	3000				



## Tape packing case

Number of case	W	L	Н
2	18±0.5	18±0.5	2.4±0.2
3	18±0.5	18±0.5	3.6±0.2
4	18±0.5	18±0.5	4.8±0.2
5	18±0.5	18±0.5	6.0±0.2