

## ■ APPLICATION

Low profile, high current power supplies  
Battery powered devices  
DC/DC converters in distributed power systems  
DC/DC converters for field programmable gate array

## ■ FEATURES

RoHS Compliant & Halogen Free  
Super low resistance, ultra high current rating  
High performance (I sat) realized by Iron powder core

## ■ PRODUCT IDENTIFICATION

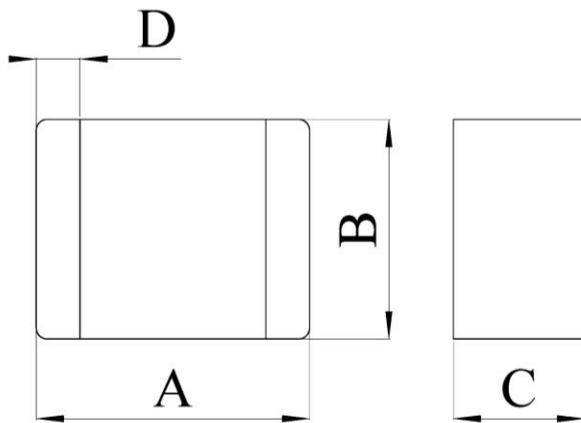
①      ②      ③      ④      ⑤

MLV - YT12N 1R0 N - X1

- ① Product Code
- ② Dimensions : 2.5 X 2.0 X 1.2 mm
- ③ Inductance : 1R0 = 1.0 $\mu$  H
- ④ Tolerance : N =  $\pm$ 30%
- ⑤ Series Type : X1 Type

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

## PRODUCT DIMENSION



NOTE : Dimensions in mm

PRODUCT NO.	A	B	C	D
MLV-YT12NSERIES-X1	$2.5 \pm 0.2$	$2.0 \pm 0.2$	1.2 Max	$0.6 \pm 0.2$

## ELECTRICAL REQUIREMENTS

PART NUMBER	INDUCTANCE $L_o(\mu H) \pm 30\%$ @0A	$R_{dc}$ (m $\Omega$ )		HEAT RATING CURRENT( $I_{dc}$ ) DC AMPS <sup>1</sup>		SATURATION CURRENT( $I_{sat}$ ) DC AMPS <sup>2</sup>	
		Typ.	Max	Typ.	Max	Typ.	Max
MLV-YT12NR33N-X1	0.33	14	17	5.5	4.95	5.8	5.22
MLV-YT12NR47N-X1	0.47	23	28	4.5	4	5	4.5
MLV-YT12N1R0N-X1	1.0	45	55	3.1	2.7	3.8	3.3

TEST FREQUENCY: 1MHz, 0.25V

TESTING INSTRUMENT L: Agilent4285A, CH3302/G LCR METER

CH1320, CH1320S BIAS CURRENT SOURCE

$R_{dc}$  : CH11025, GOM802 MICRO OHMMETE

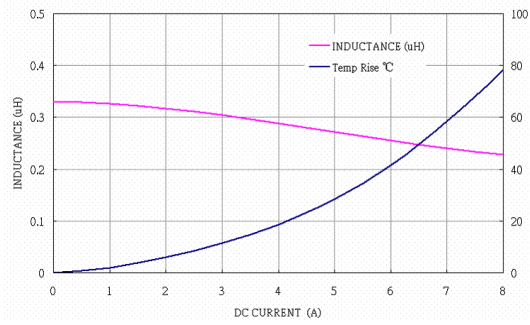
### NOTES:

- 1.DC current ( $I_{dc}$ ) that will cause an approximate  $\Delta T$  of 40°C
- 2.DC current ( $I_{sat}$ ) that will cause  $L_o$  to drop approximately 30%
- 3.All test data is referenced to 25°C ambient
- 4.Operating Temperature Range -40°C to +85°C
- 5.Withstand voltage : 25V DC

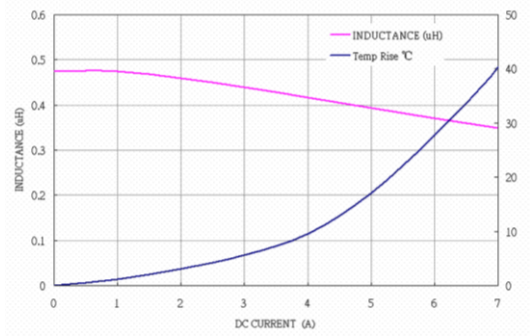
# ELECTRICAL CHARACTERISTICS

Reference data

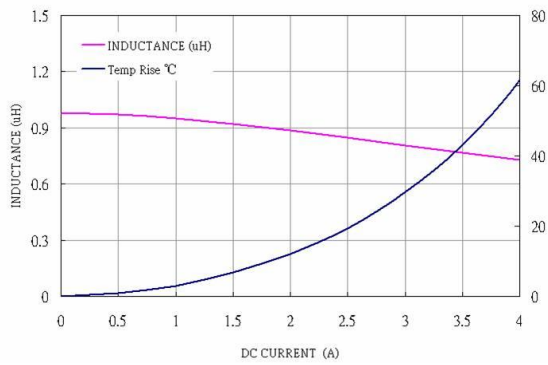
### MLV-YT12NR33N-X1



### MLV-YT12NR47N-X1

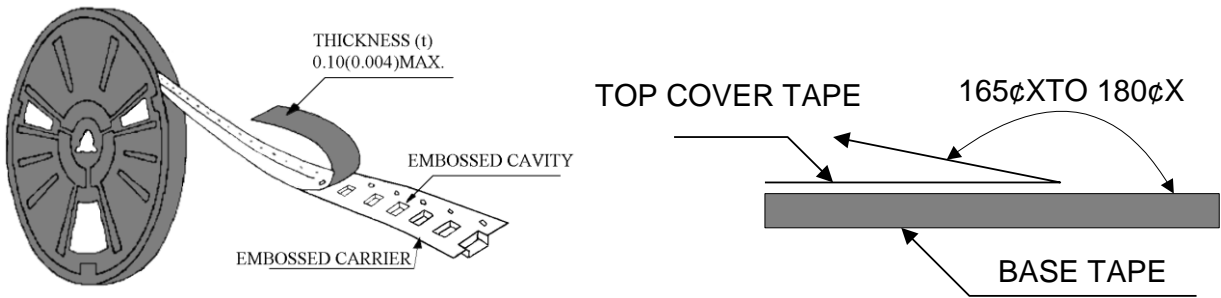


### MLV-YT12N1R0N-X1



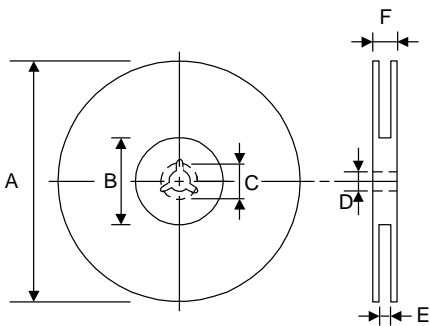
## PACKAGING

### ● Peel-off Force

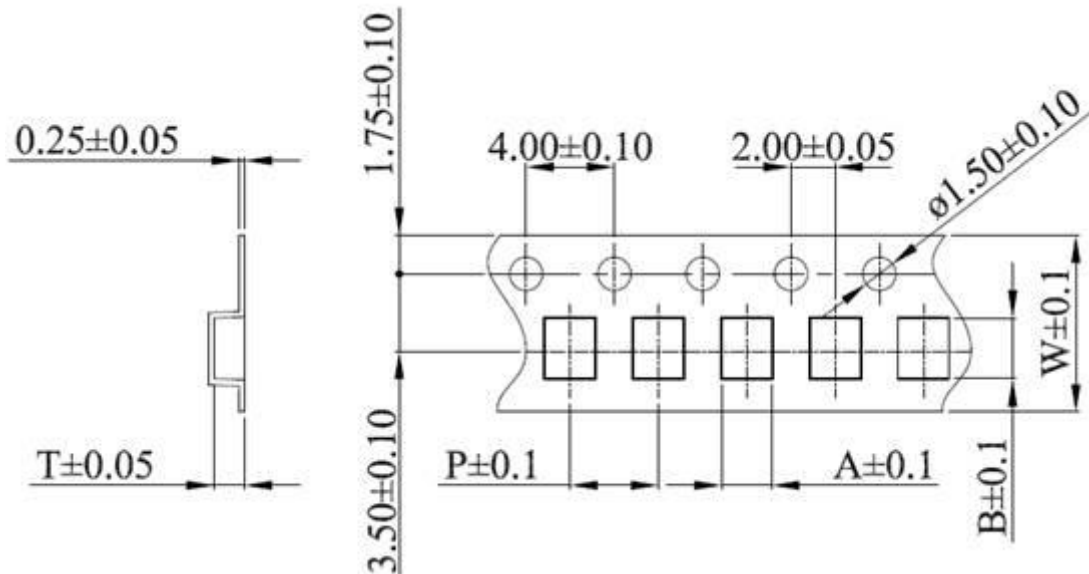


The force for peeling off cover tape is 10 grams in the arrow direction.

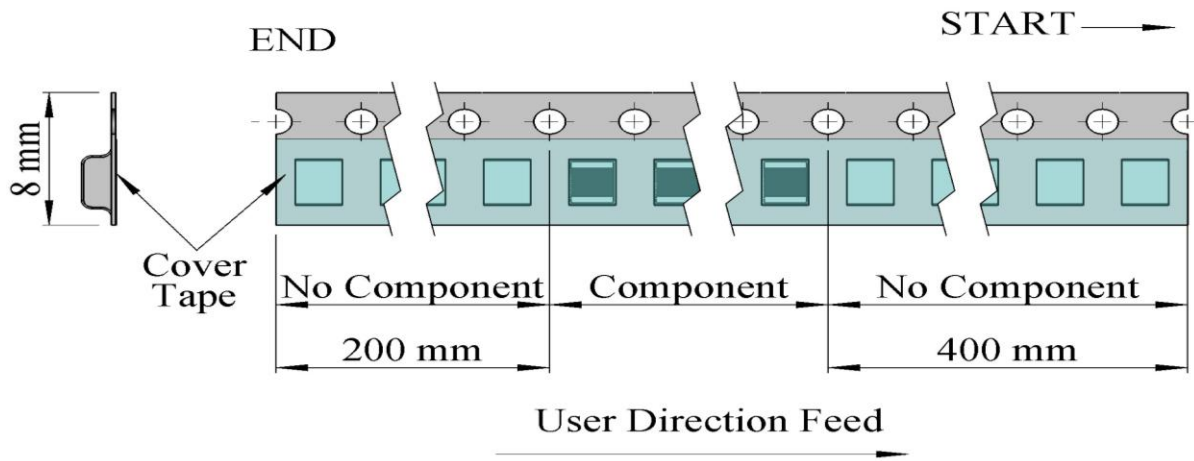
### ● Dimension (Unit: mm)



TYPE	A	B	C	D	E	F
8 mm	178±1	60 +0.5 -0	19.3 ±0.1	13 ±0.2	9 ±0.5	12 ±0.5



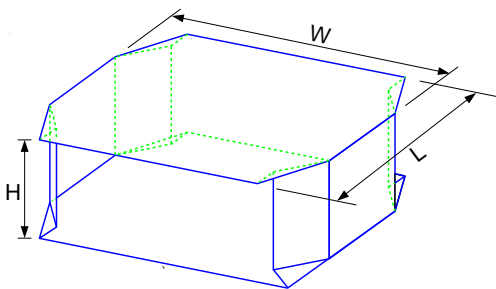
TYPE	SIZE	A	B	W	P	T
MLV	YT12	2.27	2.74	8	4	1.4



● Taping Quantity

SERIES	YT12
PCS/Reel	3000

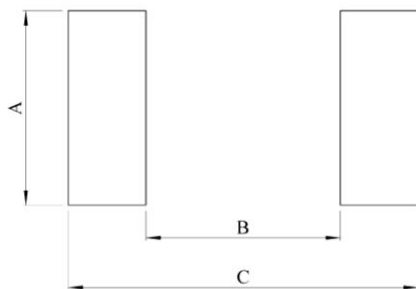
● Tape Packing Case



No. of Reels	W	L	H
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

Unit: cm

■ RECOMMENDED PCB LAYOUT



Type	YT12
A	2.0
B	1.2
C	2.8