

## 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

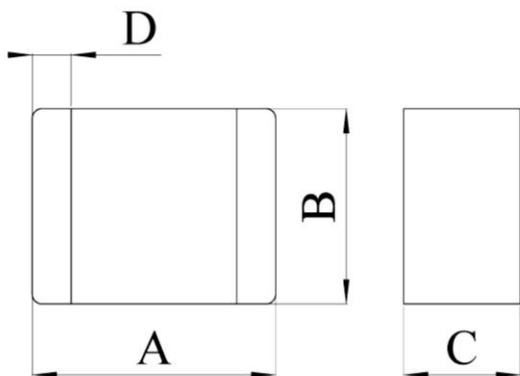
①      ②      ③ ④    ⑤

MLV - YT12N 1R0 N – M3

- 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 : M3 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-M3	<b>2.5 ± 0.2</b>	<b>2.0 ± 0.2</b>	<b>1.2 Max</b>	<b>0.6 ± 0.2</b>

## ■ ELECTRICAL REQUIREMENTS

PART NUMBER	INDUCTANCE Lo(μH)±30% @0A	R <sub>dc</sub> (mΩ)		HEAT RATING CURRENT(I <sub>dc</sub> ) DC AMPS <sup>1</sup>		SATURATION CURRENT(I <sub>sat</sub> ) DC AMPS <sup>2</sup>	
		Typ.	Max	Typ.	Max	Typ.	Max
MLV-YT12NR10N-M3	<b>0.1</b>	<b>9</b>	<b>11</b>	-	<b>7</b>	-	<b>11</b>
MLV-YT12NR25N-M3	<b>0.25</b>	<b>20</b>	<b>25</b>	-	<b>4.5</b>	-	<b>7</b>
MLV-YT12N1R0N-M3	<b>1.0</b>	<b>50</b>	<b>60</b>	-	<b>3.3</b>	-	<b>3.7</b>
MLV-YT12N1R5N-M3	<b>1.5</b>	<b>60</b>	<b>80</b>	-	<b>2.7</b>	-	<b>3.2</b>
MLV-YT12N2R2N-M3	<b>2.2</b>	<b>120</b>	<b>130</b>	-	<b>2.2</b>	-	<b>2.9</b>

TEST FREQUENCY: 1MHz, 0.25V

TESTING INSTRUMENT L: Agilent4285A, CH3302/G LCR METER

CH1320, CH1320S BIAS CURRENT SOURCE

R<sub>dc</sub> : CH11025,GOM802 MICRO OHMMETE

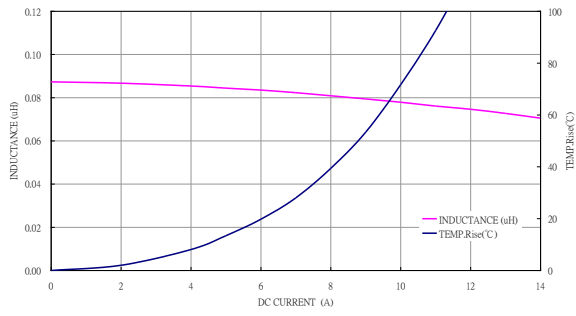
### NOTES:

- 1.DC current (I<sub>dc</sub>) that will cause an approximate ΔT of 40°C
- 2.DC current (I<sub>sat</sub>) that will cause Lo 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

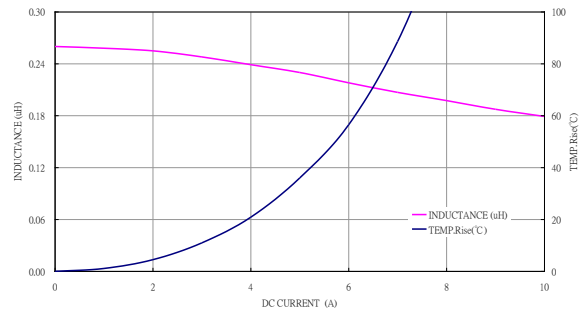
# ELECTRICAL CHARACTERISTICS

Reference data

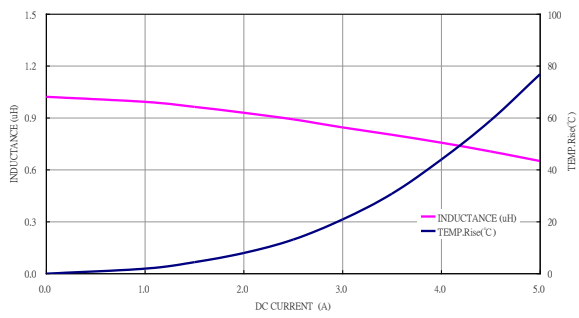
### MLV-YT12NR10N-M3



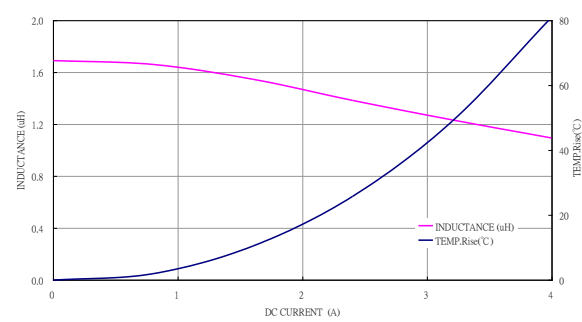
### MLV-YT12NR25N-M3



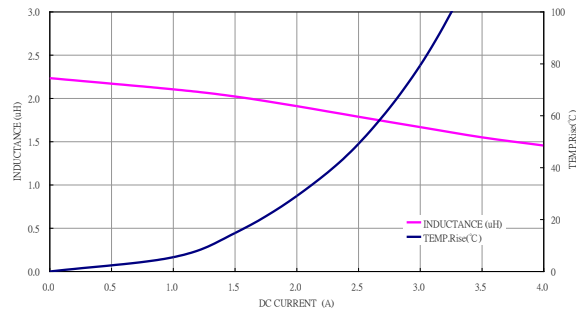
### MLV-YT12N1R0N-M3



### MLV-YT12N1R5N-M3

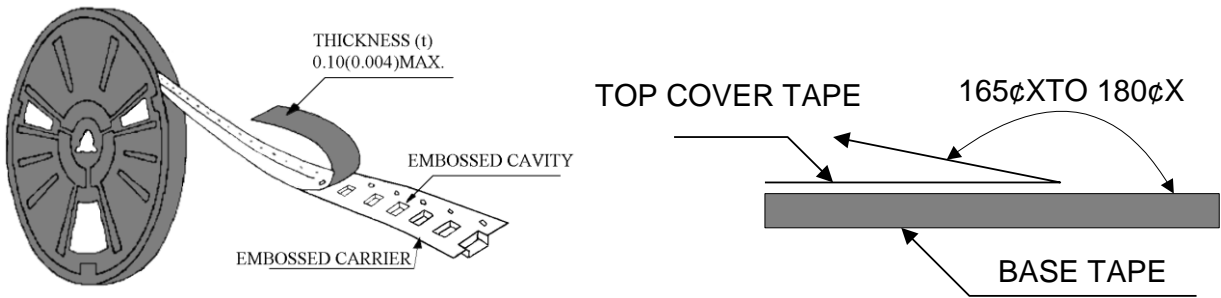


### MLV-YT12N2R2N-M3



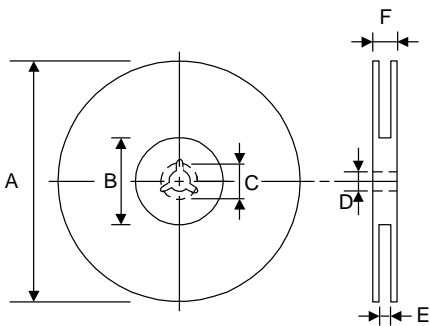
## PACKAGING

### ● Peel-off Force

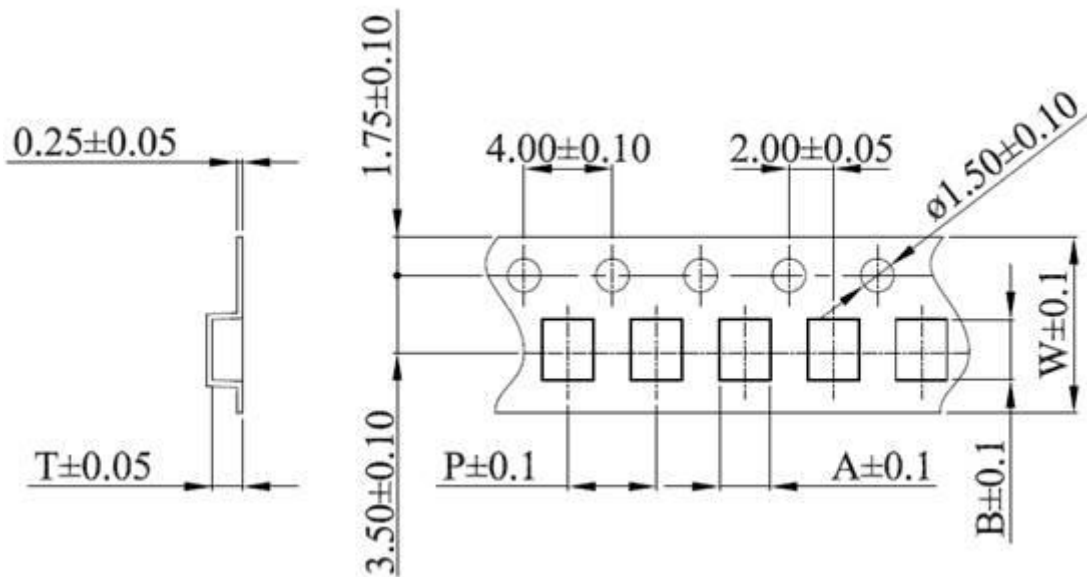


The force for peeling off cover tape is 10 grams in the arrow direction.

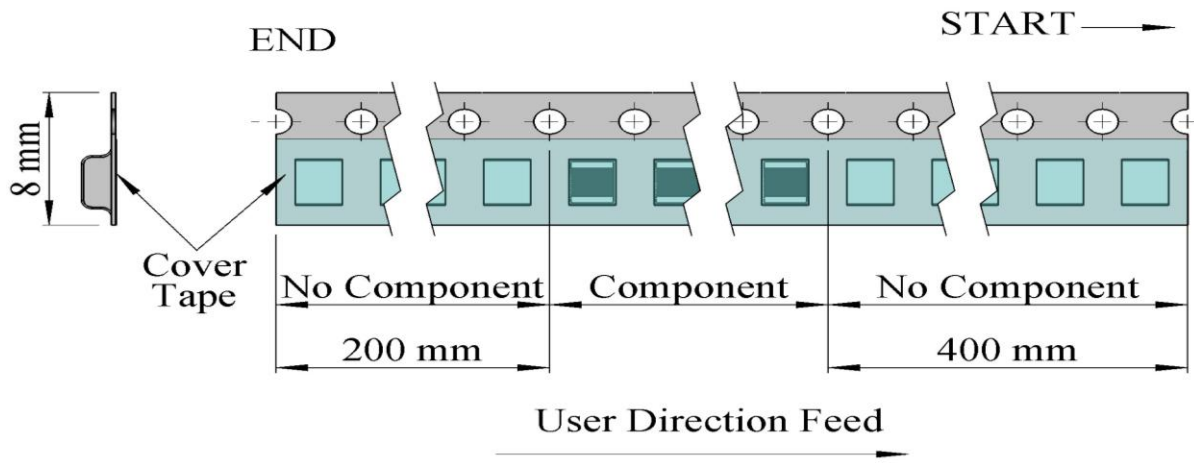
### ● Dimension (Unit: mm)



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



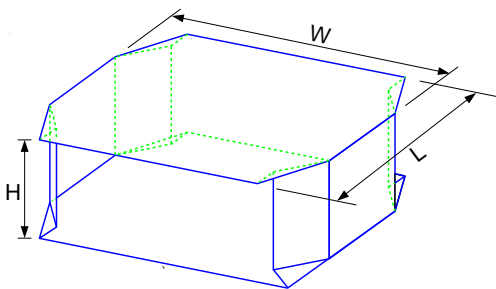
TYPE	SIZE	A	B	W	P	T
MLV	YT12	2.27	2.74	8	4	1.4



● Taping Quantity

SERIES	YT12
PCS/Reel	3000

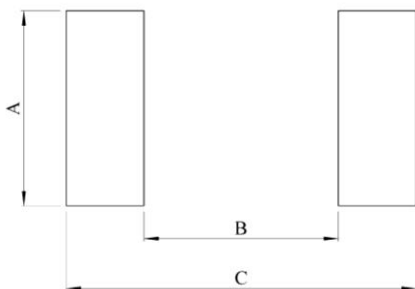
● Tape Packing Case



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