

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

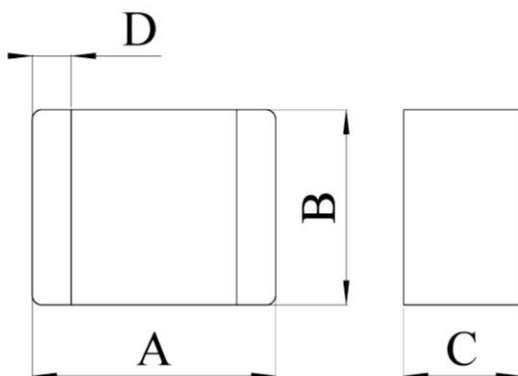
① ② ③ ④ ⑤

MLV - YT12N 1R0 N - M1

- ① Product Code
- ② Dimensions : 2.5 X 2.0 X 1.2 mm
- ③ Inductance : 1R0 = 1.0 μ H
- ④ Tolerance : N = \pm 30%
- ⑤ Series Type : M1 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-M1	2.5 ± 0.2	2.0 ± 0.2	1.2 Max	0.6 ± 0.2

ELECTRICAL REQUIREMENTS

PART NUMBER	INDUCTANCE $L_o(\mu H) \pm 30\%$ @0A	R_{dc} (m Ω)		HEAT RATING CURRENT(I_{dc}) DC AMPS ¹		SATURATION CURRENT(I_{sat}) DC AMPS ²	
		Typ.	Max	Typ.	Max	Typ.	Max
MLV-YT12NR33N-M1	0.33	25	30	4.2	4	5.25	5
MLV-YT12NR47N-M1	0.47	28	34	3.9	3.7	4	3.8
MLV-YT12NR68N-M1	0.68	35	40	3.45	3.3	3.65	3.5
MLV-YT12N1R0N-M1	1.0	40	50	3.35	3.2	3.45	3.3
MLV-YT12N1R5N-M1	1.5	56	65	2.75	2.6	3.15	3
MLV-YT12N2R2N-M1	2.2	90	102	2.2	2.1	2.65	2.5
MLV-YT12N3R3N-M1	3.3	117	130	1.7	1.6	2.2	2.1

TEST FREQUENCY: 1MHz, 0.25V

TESTING INSTRUMENT L: Agilent4285A, CH3302/G LCR METER

CH1320, CH1320S BIAS CURRENT SOURCE

R_{dc} : CH11025,GOM802 MICRO OHMMETE

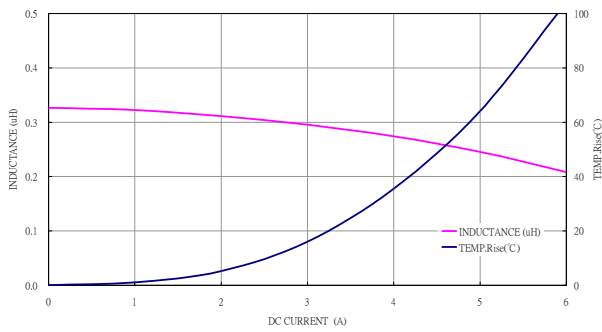
NOTES:

- 1.DC current (I_{dc}) that will cause an approximate ΔT 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

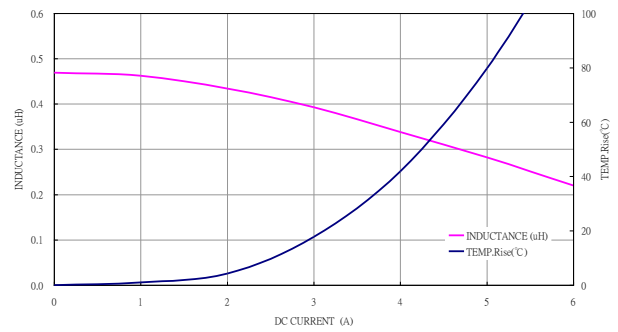
ELECTRICAL CHARACTERISTICS

Reference data

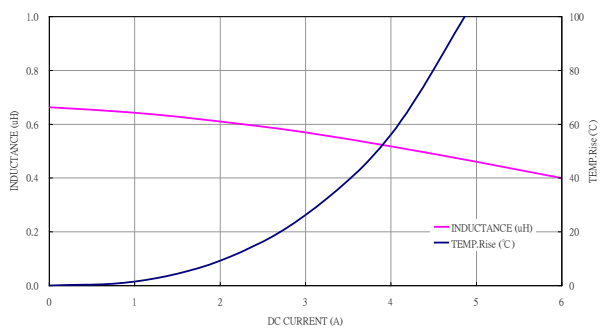
MLV-YT12NR33N- M1



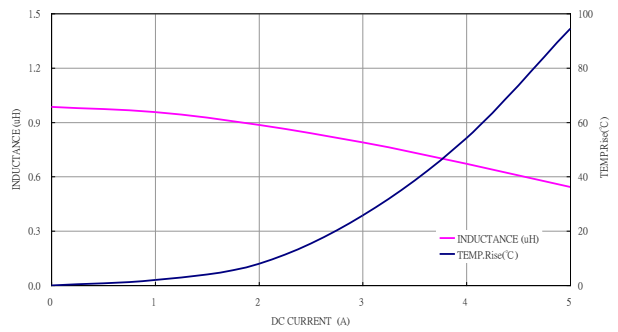
MLV-YT12NR47N- M1



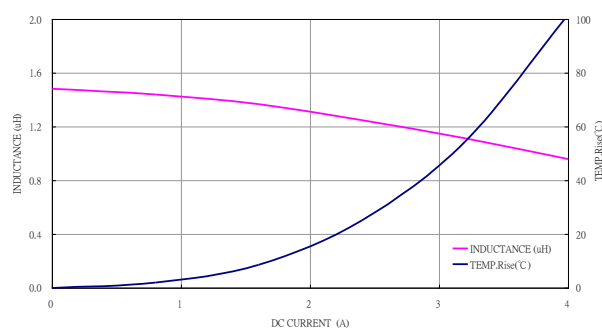
MLV-YT12NR68N- M1



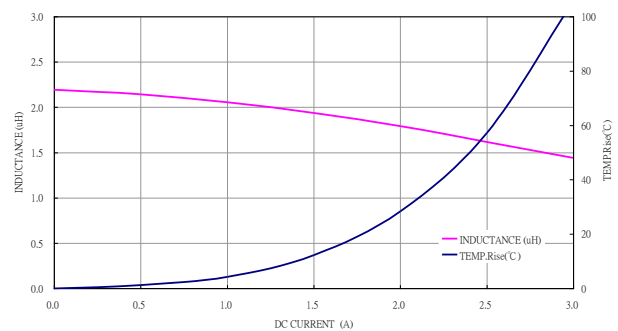
MLV-YT12N1R0N- M1



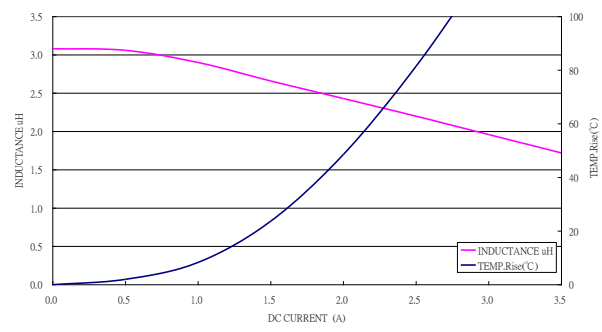
MLV-YT12N1R5N- M1



MLV-YT12N2R2N- M1



MLV-YT12N3R3N- M1

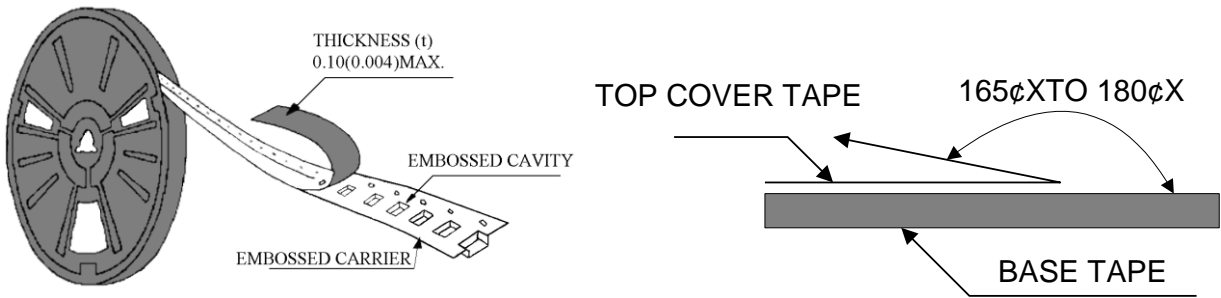


MAG.LAYERS

MLV-YT12NSERIES-M1

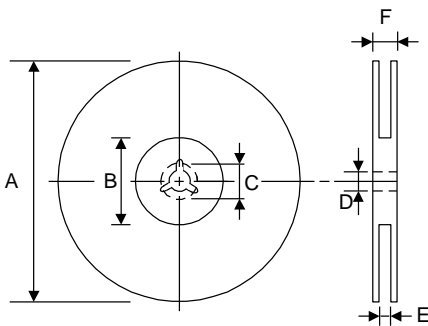
PACKAGING

● Peel-off Force

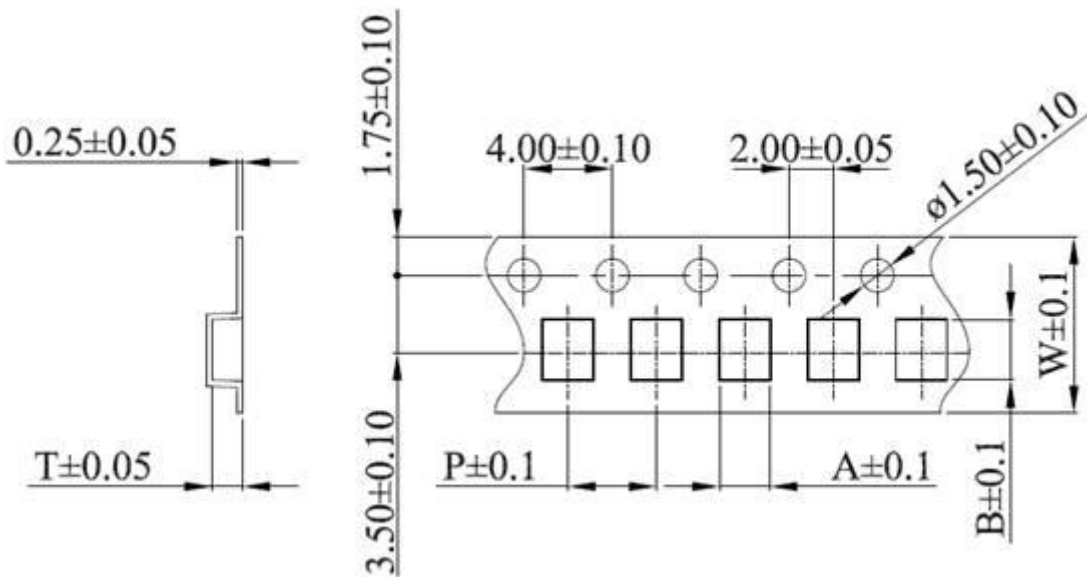


The force for peeling off cover tape is 10 grams in the arrow direction.

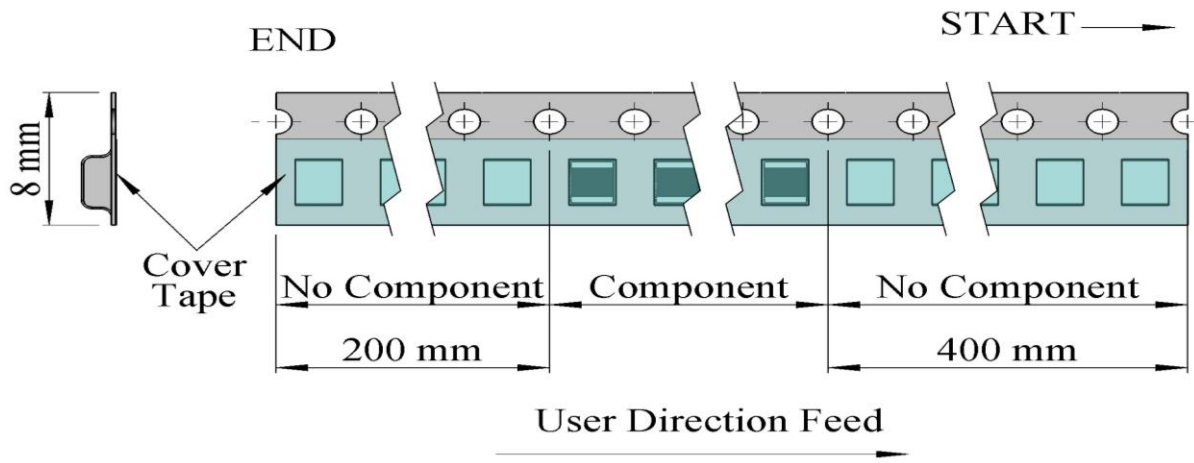
● Dimension (Unit: mm)



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



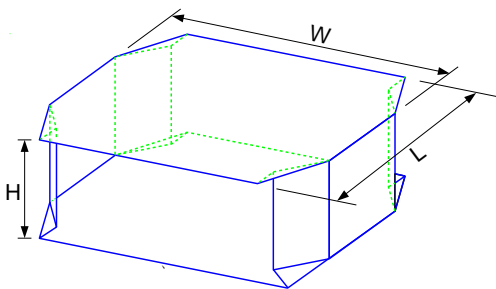
TYPE	SIZE	A	B	W	P	T
MLV	YT12	2.27	2.74	8	4	1.4



● Taping Quantity

SERIES	YT12
PCS/Reel	3000

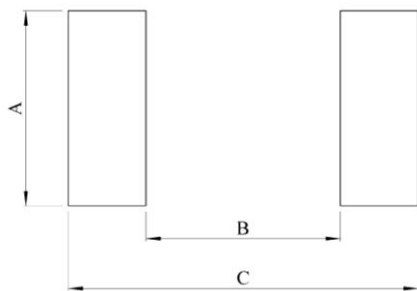
● Tape Packing Case



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