

■ 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

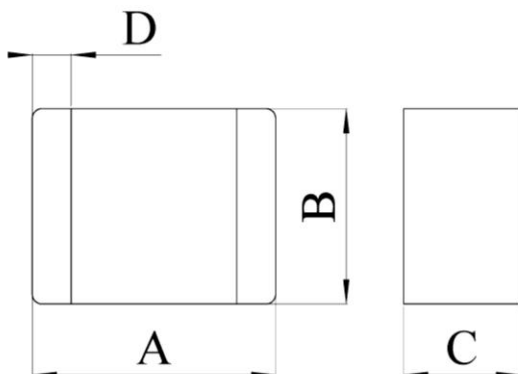
① ② ③ ④ ⑤

MLV - YT12N 1R0 N – M3

- ① Product Code
- ② Dimensions : 2.5 X 2.0 X 1.2 mm
- ③ Inductance : 1R0 = 1.0 μ 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	2.5 ± 0.2	2.0 ± 0.2	1.2 Max	0.6 ± 0.2

■ ELECTRICAL REQUIREMENTS

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

TEST FREQUENCY: 1MHz, 0.25V

TESTING INSTRUMENT L: Agilent4285A, CH3302/G LCR METER

CH1320, CH1320S BIAS CURRENT SOURCE

R_{dc} : CH11025,GOM802 MICRO OHMMETE

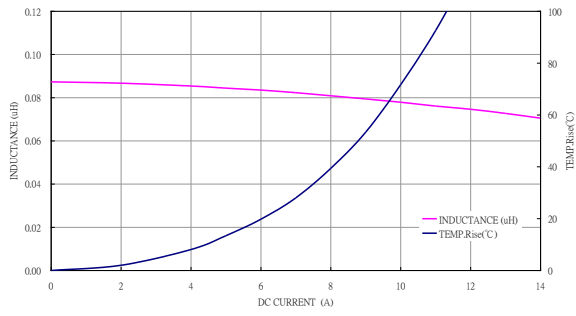
NOTES:

- 1.DC current (I_{dc}) that will cause an approximate ΔT of 40°C
- 2.DC current (I_{sat}) that will cause 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

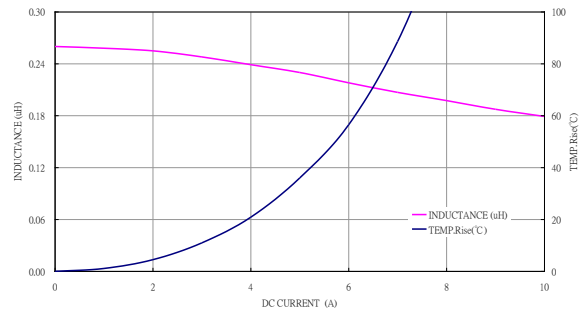
ELECTRICAL CHARACTERISTICS

Reference data

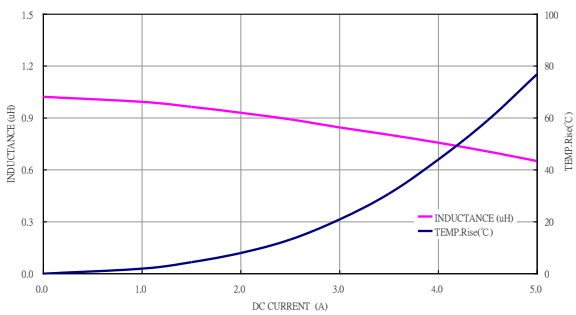
MLV-YT12NR10N-M3



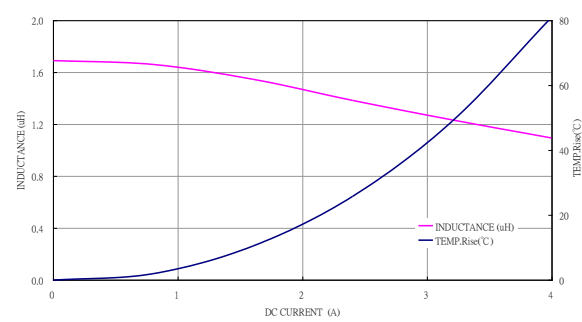
MLV-YT12NR25N-M3



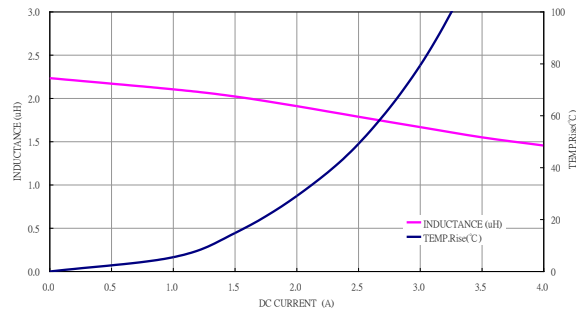
MLV-YT12N1R0N-M3



MLV-YT12N1R5N-M3

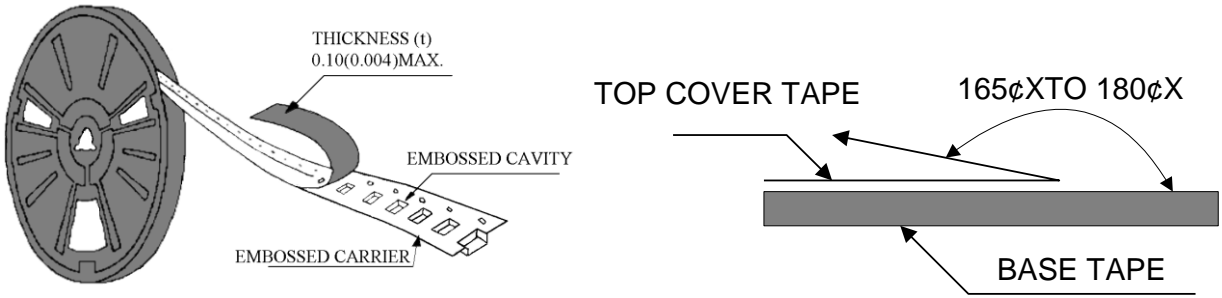


MLV-YT12N2R2N-M3



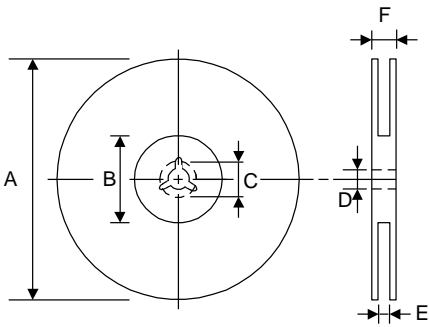
PACKAGING

● Peel-off Force

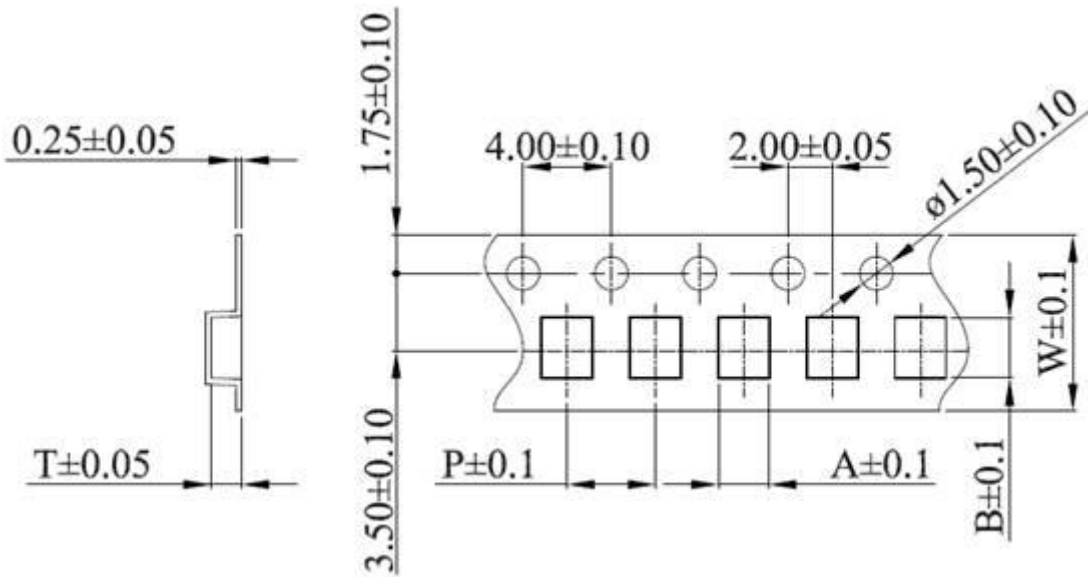


The force for peeling off cover tape is 10 grams in the arrow direction.

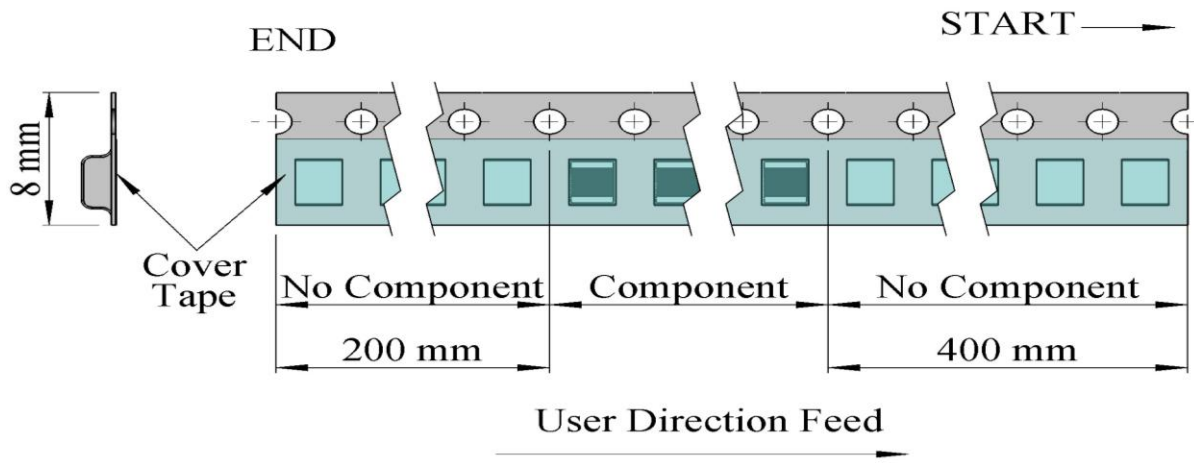
● Dimension (Unit: mm)



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



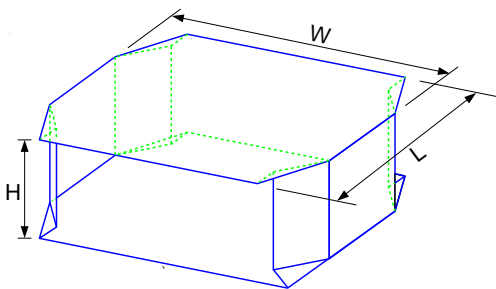
TYPE	SIZE	A	B	W	P	T
MLV	YT12	2.27	2.74	8	4	1.4



● Taping Quantity

SERIES	YT12
PCS/Reel	3000

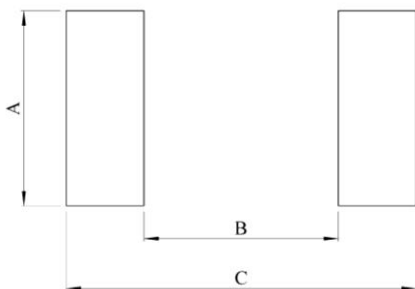
● Tape Packing Case



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