

■ 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

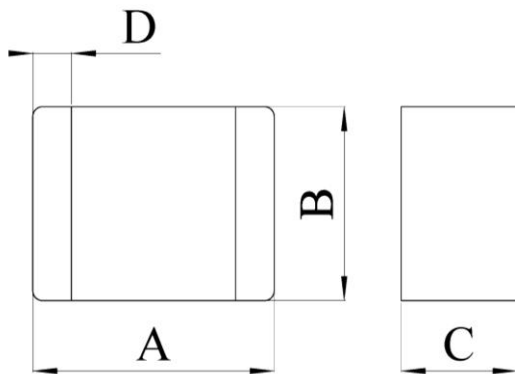
① ② ③④ ⑤

MLV - TP12 R24 N - X1

- ① Product Code
- ② Dimensions : 2.0 X 1.6 X 1.2mm
- ③ Inductance : R24 = 0.24 μ 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-TP12NSERIES-X1	2.0 ± 0.2	1.6 ± 0.2	1.2 Max	0.5 ± 0.3

■ 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-TP12NR24N-X1	0.24	17	21	4.5	4.0	5.3	4.77
MLV-TP12NR33N-X1	0.33	27	33	3.9	3.5	4.6	4.0
MLV-TP12NR47N-X1	0.47	30	36	3.5	3.1	3.9	3.5
MLV-TP12NR50N-X1	0.50	32	39	3.3	3.0	3.7	3.4

TEST FREQUENCY: 1MHz, 0.25V

TESTING INSTRUMENT L: Agilent4285A, CH3302/G LCR METER

CH1320, CH1320S BIAS CURRENT SOURCE

R_{dc} : CH11025, GOM802 MICRO OHMMETE

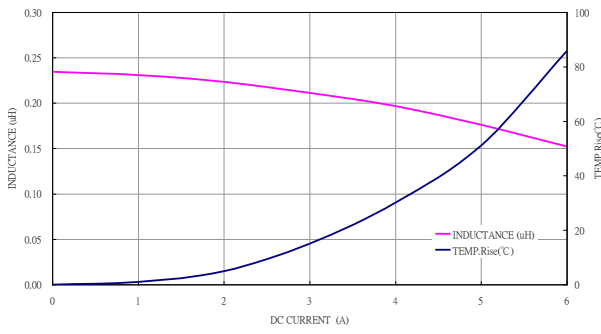
NOTES:

- 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

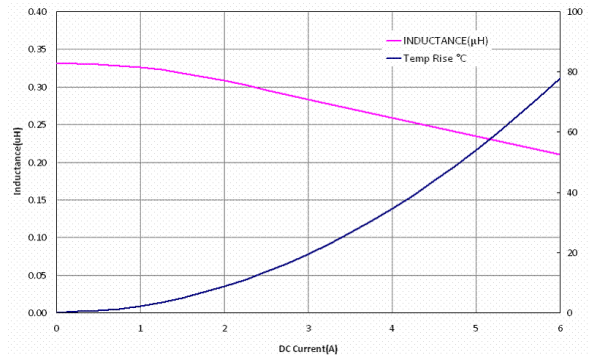
ELECTRICAL CHARACTERISTICS

Reference data

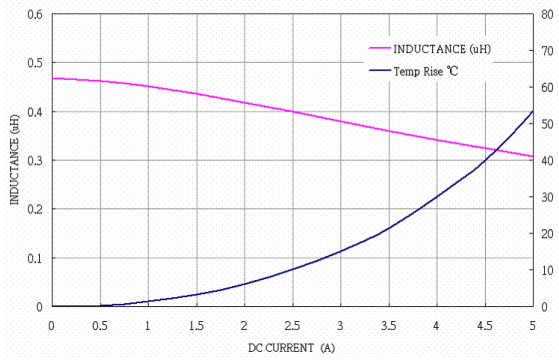
MLV-TP12NR24N-X1



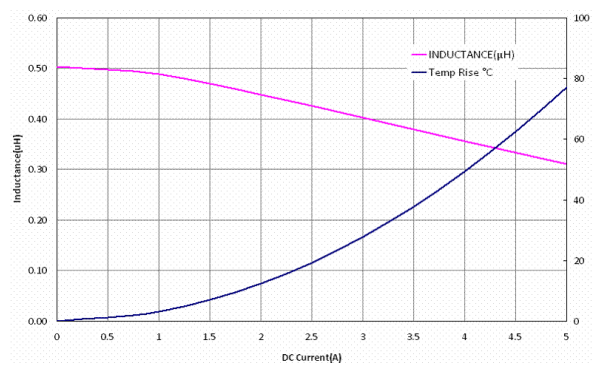
MLV-TP12NR33N-X1



MLV-TP12NR47N-X1

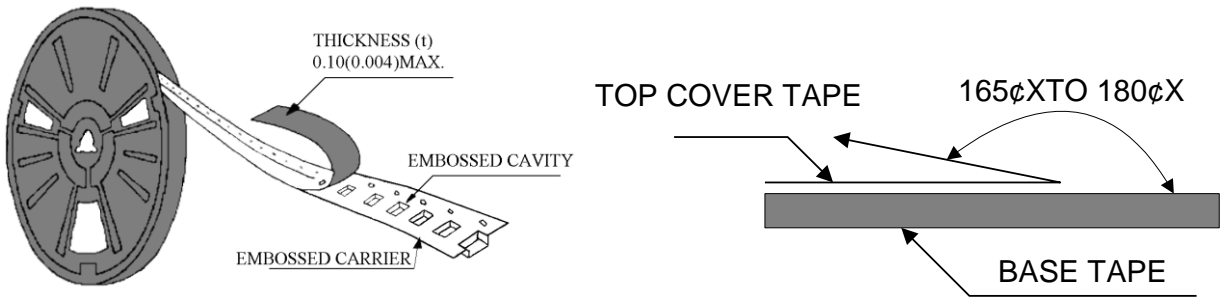


MLV-TP12NR50N-X1



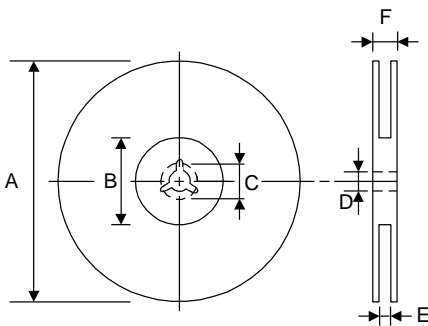
PACKAGING

● Peel-off Force

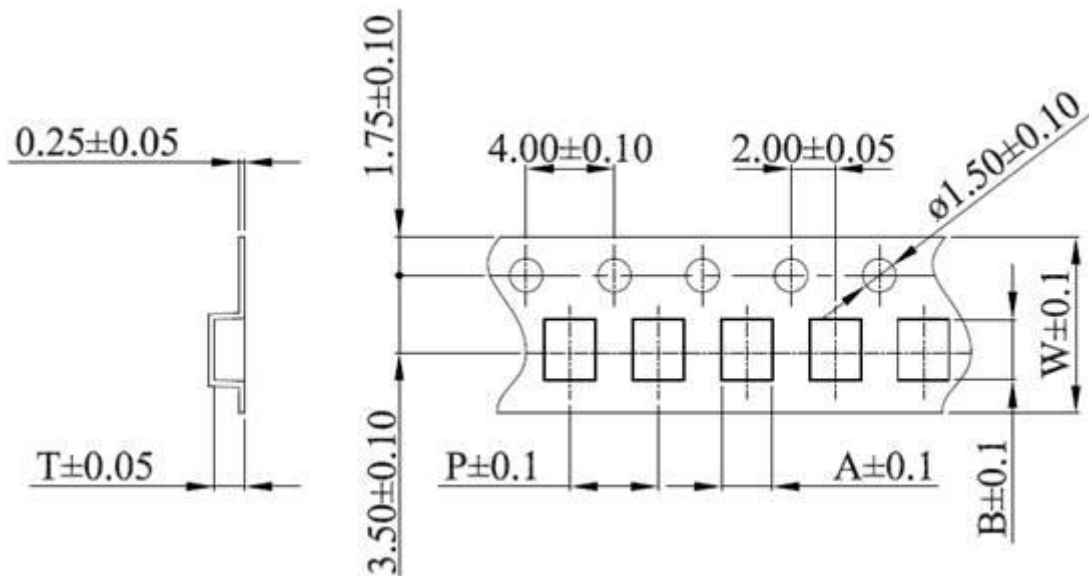


The force for peeling off cover tape is 10 grams in the arrow direction.

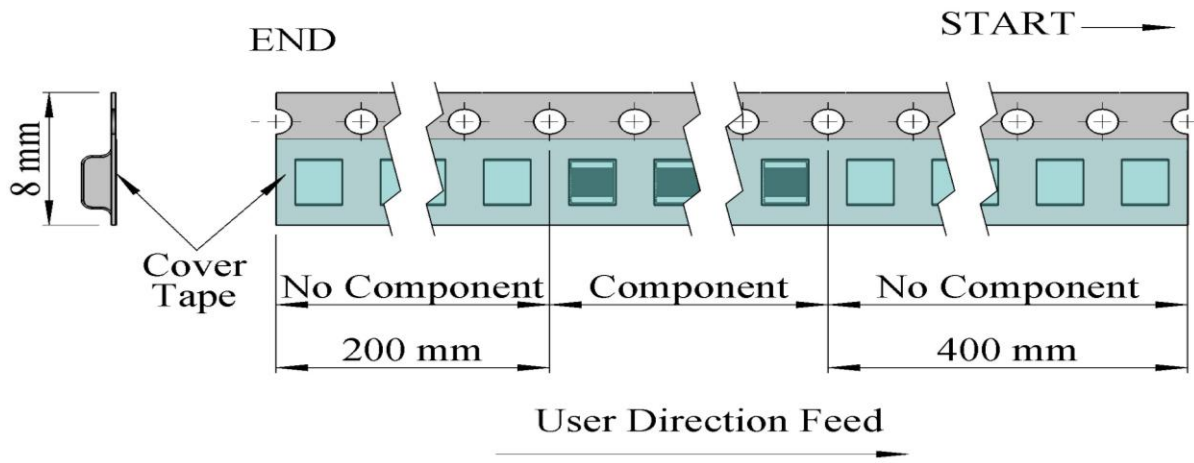
● Dimension (Unit: mm)



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



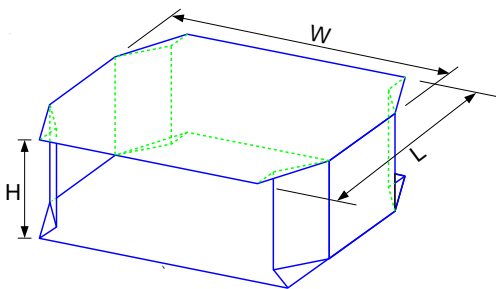
TYPE	SIZE	A	B	W	P	T
MLV	TP12	1.9	2.3	8	4	1.4



● Taping Quantity

SERIES	TP12
PCS/Reel	3000

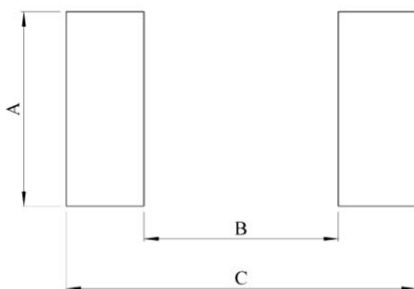
● Tape Packing Case



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	TP12
A	1.6
B	0.9
C	2.3