



High current, miniature power inductors – ML404012M Series

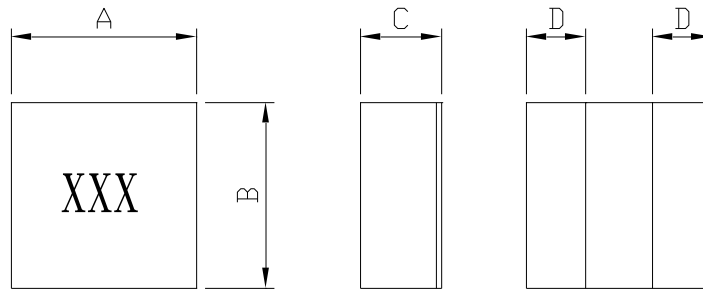


PART NUMBERING SYSTEM

ML	404012M	—	1R0M	—	LF
TYPE	DIMENSIONS		INDUCTANCE		LEAD FREE

SHAPES AND DIMENSIONS

UNIT : mm



A= 4.0±0.2 B=4.0±0.2 C=1.0±0.2 D=1.2±0.3 E=1.6±0.3

FEATURES

1. **Magnetic shielding** allows high-density mounting
2. **Ultra-small shielded power inductor** – only **1.2 mm** high, **4.0× 4.0 mm** footprint
3. Handles **current up to 9.0 Amps**
4. Excellent mounting strength by SMD chip making
5. Robust structure
6. Low acoustic noise and high efficiency
7. Halogen free, RoHS and REACH compliant
8. RoHS-compliant. 260°C compatible.
9. Operating Temperature Range : -40°C to +125°C
10. Automotive grade available

High current, miniature power inductors – ML404012M Series

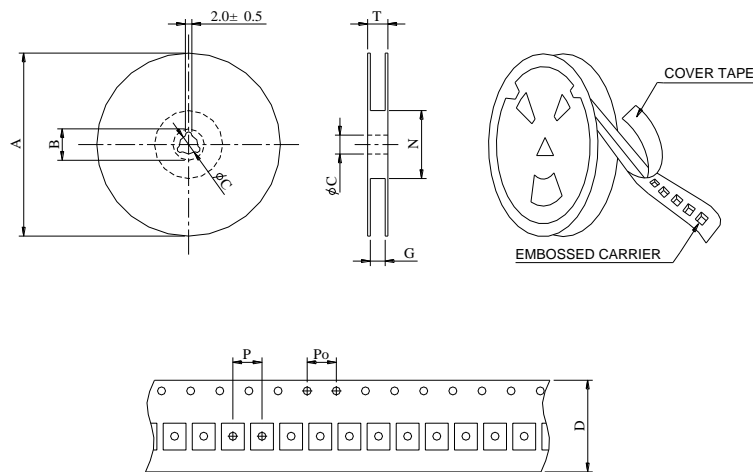
SPECIFICATION TABLE

PART NUMBER	Inductance (uH) at 1MHz	DCR (mΩ) (max)	Isat (A) (Typ.)	Irms (A) (Typ.)	Test Frequency
ML404012M-R47M-LF	0.47±20%	20.0	9.0	8.5	100KHz/1V
ML404012M-R68M-LF	0.68±20%	35.0	8.0	7.0	100KHz/1V
ML404012M-1R0M-LF	1.0±20%	43.0	7.0	6.5	100KHz/1V
ML404012M-1R5M-LF	1.5±20%	65.0	5.5	5.0	100KHz/1V
ML404012M-2R2M-LF	2.2±20%	80.0	5.0	4.5	100KHz/1V
ML404012M-3R3M-LF	3.3±20%	115.0	4.5	4.0	100KHz/1V
ML404012M-4R7M-LF	4.7±20%	145.0	3.5	3.0	100KHz/1V
ML404012M-6R8M-LF	6.8±20%	205.0	3.0	2.5	100KHz/1V
ML404012M-100M-LF	10.0±20%	300.0	2.5	2.2	100KHz/1V
ML404012M-150M-LF	15.0±20%	390.0	2.2	2.0	100KHz/1V

Isat means that DC current will cause a **30% inductance reduction** from initial value .

Irms means that DC current will cause **coil temperature rising to 40°C** whichever is smaller.

PACKAGING SPECIFICATION



SERIES	STAYLE	Q'TY (PCS)	DIMENSIONS (m/m)								
			A	B±0.8	C±0.5	D	G ⁺⁰	N ⁻⁰	P	Po	T
ML404012M	178	2,000	178	21	13	12	18	50	4	4	22.4