



## High current, miniature power inductors – ML404020M Series

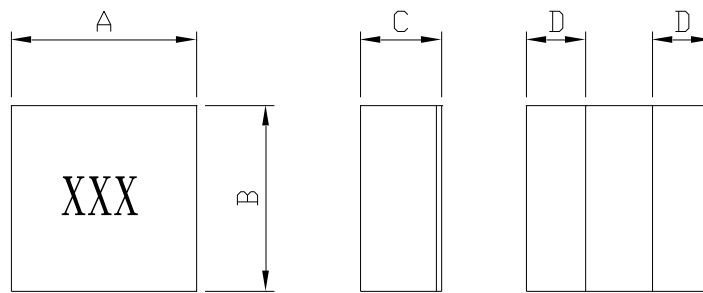


### PART NUMBERING SYSTEM

<b>ML</b>	<b>404020M</b>	—	<b>R47M</b>	—	<b>LF</b>
TYPE	DIMENSIONS		INDUCTANCE		LEAD FREE

### SHAPES AND DIMENSIONS

UNIT : mm



**A= 4.0±0.2    B=4.0±0.2    C=2.0±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 2.2 mm high, 4.0× 4.0 mm footprint
3. Handles **current up to 10.0 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

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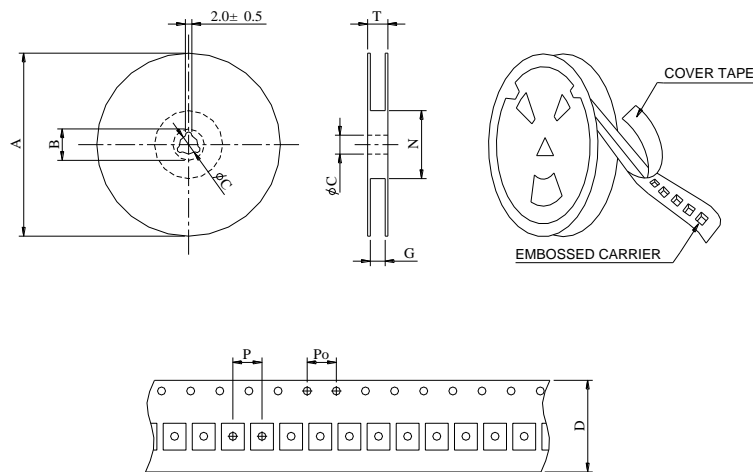
### SPECIFICATION TABLE (at 25°C)

PART NUMBER	Inductance (uH)	DCR (mΩ) (max)	Isat (A) (Typ.)	Irms (A) (Typ.)	Test Frequency
ML404020M-R47M-LF	0.47±20%	14	10.0	9.5	100KHz/1V
ML404020M-R68M-LF	0.68±20%	27	9.5	8.5	100KHz/1V
ML404020M-1R0M-LF	1.0±20%	35	8.5	8.0	100KHz/1V
ML404020M-1R5M-LF	1.5±20%	56	7.0	6.5	100KHz/1V
ML404020M-2R2M-LF	2.2±20%	72	6.5	6.0	100KHz/1V
ML404020M-3R3M-LF	3.3±20%	100	6.0	5.5	100KHz/1V
ML404020M-4R7M-LF	4.7±20%	130	4.2	3.8	100KHz/1V
ML404020M-6R8M-LF	6.8±20%	175	3.8	3.2	100KHz/1V
ML404020M-100M-LF	10.0±20%	270	3.2	3.0	100KHz/1V
ML404020M-150M-LF	15.0±20%	345	3.0	2.8	100KHz/1V
ML404020M-220M-LF	22.0±20%	430	2.8	2.5	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 <sup>+</sup> 0	N <sup>0</sup>	P	Po	T
ML404020M	178	2,000	178	21	13	12	-	60	8	4	-