



Molding High Current Inductors - ML322512T-A SERIES



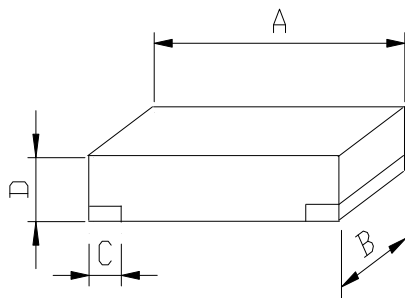
PART NUMBERING SYSTEM

(AEC-Q200)

| | | | | | | | |
|-----------|----------------|---|-------------|---|-----------|---|------------|
| ML | 322512T | — | R68M | — | LF | — | A |
| TYPE | DIMENSIONS | | INDUCTANCE | | LEAD FREE | | Automotive |

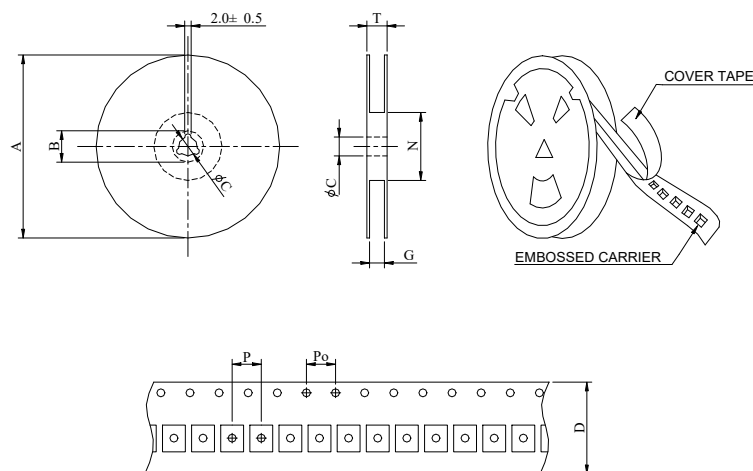
SHAPES AND DIMENSIONS

UNIT : mm



A= 3.2±0.3 B=2.5±0.3 C=0.8±0.3 D=1.2 Max.

PACKAGING SPECIFICATION



| SERIES | STAYLE | Q'TY (PCS) | DIMENSIONS (m/m) | | | | | | | | |
|-------------|--------|------------|------------------|-------|-------|---|----------------|----------------|---|----|------|
| | | | A | B±0.8 | C±0.5 | D | G ⁺ | N ⁰ | P | Po | T |
| ML322512T-A | 178 | 2,000 | 178 | 21 | 13 | 8 | 18 | 50 | 4 | 4 | 22.4 |



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SPECIFICATION TABLE

(AEC-Q200)

| PART NUMBER | INDUCTANCE (μ H) | DCR (m Ω) Max. (Typ.) | Isat(A) Max. (Typ.) | Irms(A) Max. (Typ.) | TEST FREQ. (MHz) |
|---------------------|-----------------------|-------------------------------|---------------------|---------------------|------------------|
| ML322512T-R33M-LF-A | 0.33 \pm 20% | 13.0 (10.0) | 8.50 (9.1) | 8.00 (8.50) | 100KHz/1V |
| ML322512T-R47M-LF-A | 0.47 \pm 20% | 19.2 (16.0) | 7.40 (8.2) | 6.50 (7.00) | 100KHz/1V |
| ML322512T-R68M-LF-A | 0.68 \pm 20% | 24.0 (20.0) | 6.80 (7.3) | 5.70 (6.20) | 100KHz/1V |
| ML322512T-1R0M-LF-A | 1.00 \pm 20% | 32.0 (26.0) | 5.70 (6.5) | 5.00 (5.50) | 100KHz/1V |
| ML322512T-1R5M-LF-A | 1.50 \pm 20% | 53.0 (44.0) | 4.50 (5.0) | 3.90 (4.40) | 100KHz/1V |
| ML322512T-2R2M-LF-A | 2.20 \pm 20% | 73.0 (61.0) | 4.30 (4.8) | 3.60 (4.00) | 100KHz/1V |
| ML322512T-3R3M-LF-A | 3.30 \pm 20% | 101 (87.0) | 3.00 (3.4) | 2.90 (3.1) | 100KHz/1V |
| ML322512T-4R7M-LF-A | 4.70 \pm 20% | 146 (122) | 2.40 (2.8) | 1.90 (2.2) | 100KHz/1V |
| ML322512T-5R6M-LF-A | 5.60 \pm 20% | 204 (170) | 1.90 (2.2) | 1.60 (1.9) | 100KHz/1V |
| ML322512T-6R8M-LF-A | 6.80 \pm 20% | 220 (183) | 1.50 (1.8) | 1.40 (1.7) | 100KHz/1V |
| ML322512T-8R2M-LF-A | 8.20 \pm 20% | 298 (248) | 1.40 (1.7) | 1.30 (1.6) | 100KHz/1V |
| ML322512T-100M-LF-A | 10.0 \pm 20% | 330 (274) | 1.30 (1.6) | 1.20 (1.5) | 100KHz/1V |

FEATURES

1. **Magnetic shielding** allows high-density mounting
2. **Ultra-small shielded power inductor** – only 1.2 mm high, 3.5× 2.5 mm footprint
3. Handles **current up to 9.1 Amps**
4. Excellent mounting strength by SMD chip making
5. **Isat** means that DC current will cause a **30% inductance reduction** from initial value .
6. **Irms** means that DC current will cause **coil temperature rising to 40°C** whichever is smaller.
7. **RoHS-compliant**. 260°C compatible.
8. Operating Temperature Range : -40°C to +125°C

