

TDK Thin Film Power inductor TMS322512 series

FEATURES

- The thickness of this product is 1.2mm,and it is very thin compared with other same kind of products.
- This product corresponds to ROHS.

APPLICATIONS

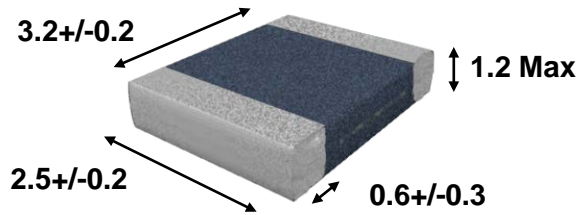
- For Industrial equipment , PC, HDD, SDD, Power module etc.

PRODUCT IDENTIFICATIONS

TMS 3225 12 ALM - R47 M T AA
 (1) (2) (3) (4) (5) (6) (7) (8)

- (1) Series name
- (2) Product size (Length , Width)
- (3) Product height
- (4) Product identification
- (5) Inductance value (R47 : 0.47μH)
- (6) Inductance tolerance (M : ±20%)
- (7) Packing style (T : Taping)
- (8) Control mark

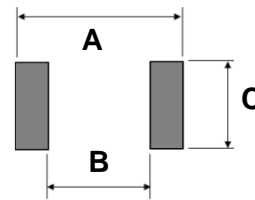
PRODUCTS SHAPE & DIMENSIONS



OPERATING TEMPERATURE RANGE

-40 to 125deg.C
 (Including self-temperature rise : 40deg.C)

RECOMMENDED RAND PATTERN



| | A [mm] | B [mm] | C [mm] |
|-----------|--------|--------|--------|
| TMS322512 | 3.6 | 2.0 | 2.5 |

ELECTRICAL CHARACTERISTICS

| Identification | Inductance [μH] @1MHz | Rated Voltage [V] | DC Resistance [mOhm] | | Isat [A] | | Itemp [A] | | Status |
|-----------------------|-----------------------|-------------------|----------------------|------|----------|------|-----------|------|--------|
| | | | Max | Typ. | Max | Typ. | Max. | Typ. | |
| TMS322512ALM-R10MTAA* | 0.10+/-20% | 20 | 8 | 4 | 13 | 14 | 8.0 | 13 | ES |
| TMS322512ALM-R15MTAA | 0.15+/-20% | 20 | 9 | 5 | 10 | 11 | 8.0 | 11 | CS |
| TMS322512ALM-R22MTAA* | 0.22+/-20% | 20 | 11 | 6 | 9.5 | 10 | 7.0 | 9.5 | ES |
| TMS322512ALM-R33MTAA* | 0.33+/-20% | 20 | 15 | 10 | 8.6 | 9.5 | 6.0 | 7.3 | ES |
| TMS322512ALM-R47MTAA | 0.47+/-20% | 20 | 21 | 16 | 6.9 | 7.6 | 5.3 | 6.1 | CS |
| TMS322512ALM-R68MTAA | 0.68+/-20% | 20 | 30 | 23 | 5.5 | 6.1 | 4.4 | 5.0 | CS |
| TMS322512ALM-1R0MTAA | 1.0 +/-20% | 20 | 37 | 30 | 4.6 | 5.1 | 4.0 | 4.4 | MP |
| TMS322512ALM-1R5MTAA | 1.5 +/-20% | 20 | 57 | 46 | 4.0 | 4.5 | 3.2 | 3.5 | CS |
| TMS322512ALM-2R2MTAA | 2.2 +/-20% | 20 | 77 | 64 | 3.3 | 3.6 | 2.7 | 3.0 | MP |
| TMS322512ALM-3R3MTAA | 3.3 +/-20% | 20 | 113 | 97 | 2.5 | 2.8 | 2.3 | 2.5 | CS |
| TMS322512ALM-4R7MTAA | 4.7 +/-20% | 20 | 151 | 127 | 2.2 | 2.5 | 1.9 | 2.1 | CS |
| TMS322512ALM-6R8MTAA | 6.8 +/-20% | 20 | 260 | 220 | 1.8 | 2.1 | 1.4 | 1.6 | CS |
| TMS322512ALM-100MTAA | 10 +/-20% | 20 | 360 | 305 | 1.6 | 1.8 | 1.2 | 1.4 | CS |

Isat : Depend on the Inductance Saturation. (-30% Reduction from Initial L Value/ Test Freq. 1MHz)

Itemp : Depend on the Self Temperature Rise. (40deg.C Typ.)

Rated Current: The less value which is Isat Max or Itemp Max.

ES : Engineering Sample

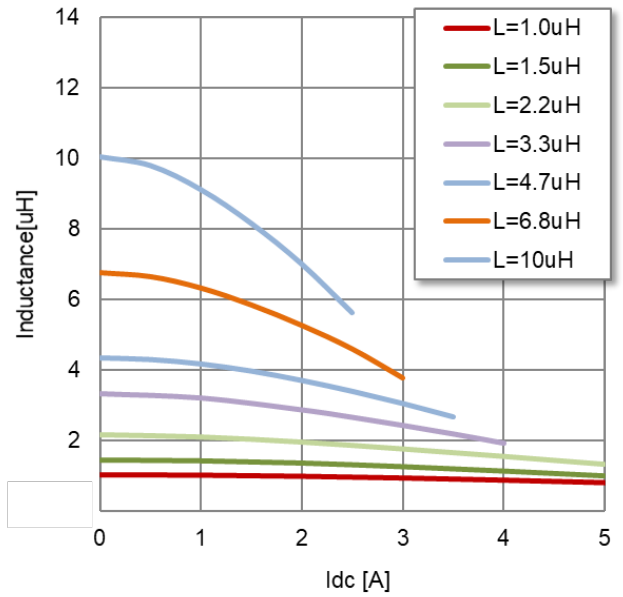
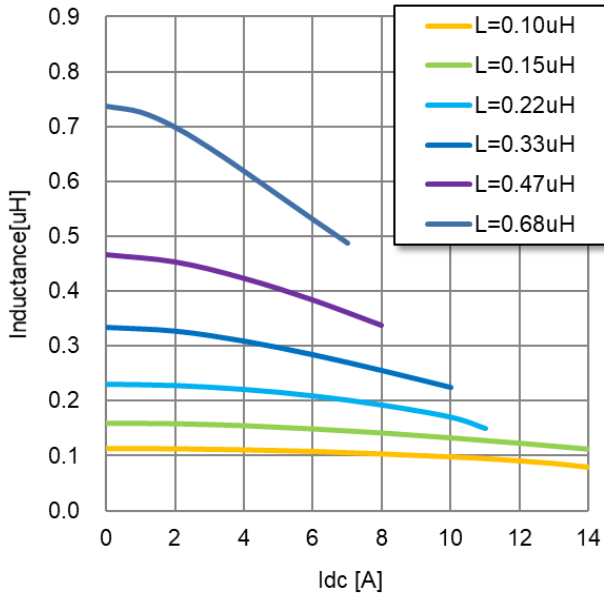
CS : Commercial Sample

MP : Mass Production

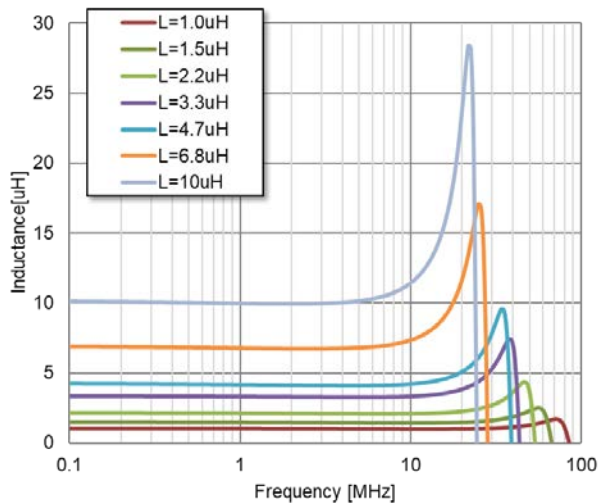
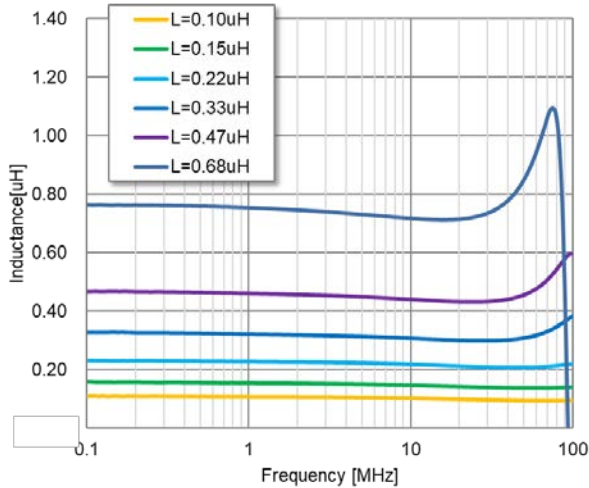
* These products are under development. This document is subjected to change specifications without notice.

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INDUCTANCE VS.DC SUPERPOSITION CHARACTERISTICS (1MHz)



L - FREQUENCY CHARACTERISTICS



R - FREQUENCY CHARACTERISTICS

