

# TDK Thin Film Power inductor TFM252012-ALTA Series

## FEATURES

- The thickness of this product is 1.2mm, and it is very thin compared with other same kind of products.
- This product consists of original fine copper pattern with micro-processing technology.
- This product corresponds to ROHS.

## APPLICATIONS

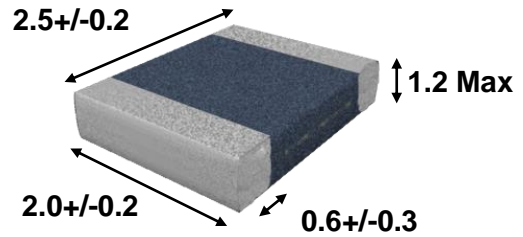
- Automotive usage  
Conform to AEC-Q200
- Base station
- Server

## PRODUCT IDENTIFICATIONS

**TFM 2520 12 ALT A R47 M T AA**  
 (1) (2) (3) (4) (5) (6) (7) (8) (9)

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

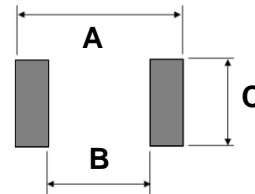
## PRODUCTS SHAPE & DIMENSIONS



## OPERATING TEMPERATURE RANGE

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

## RECOMMENDED RAN D PATTERN



	A [mm]	B [mm]	C [mm]
<b>TFM252012</b>	<b>2.9</b>	<b>1.5</b>	<b>2.0</b>

## ELECTRICAL CHARACTERISTICS

Identification	Inductance [μH]	Rated Voltage [V]	DC Resistance [mOhm]		Isat [A]		Itemp [A]	
			Max	Typ.	Max	Typ.	Max.	Typ.
TFM252012ALTAR10MTAA	0.10+/-20%	20	9	4	10	12	8.0	12
TFM252012ALTAR15MTAA	0.15+/-20%	20	11	6	9.0	10	7.3	9.8
TFM252012ALTAR22MTAA	0.22+/-20%	20	13	8	8.0	9.0	6.7	8.5
TFM252012ALTAR33MTAA	0.33+/-20%	20	18	13	7.0	7.8	5.7	6.6
TFM252012ALTAR47MTAA	0.47+/-20%	20	24	19	5.8	6.5	4.9	5.6
TFM252012ALTAR68MTAA	0.68+/-20%	20	34	26	4.8	5.4	4.1	4.7
TFM252012ALTA1R0MTAA	1.0 +/-20%	20	42	35	4.2	4.7	3.7	4.1
TFM252012ALTA1R5MTAA	1.5 +/-20%	20	60	52	3.3	3.9	3.1	3.3
TFM252012ALTA2R2MTAA	2.2 +/-20%	20	84	75	2.8	3.3	2.6	2.8
TFM252012ALTA3R3MTAA	3.3 +/-20%	20	140	124	2.1	2.5	2.0	2.2
TFM252012ALTA4R7MTAA	4.7 +/-20%	20	200	180	1.9	2.2	1.6	1.8

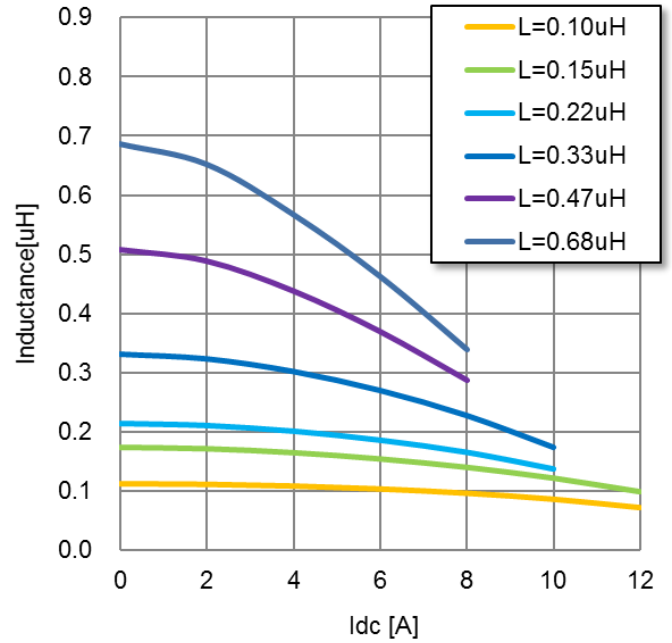
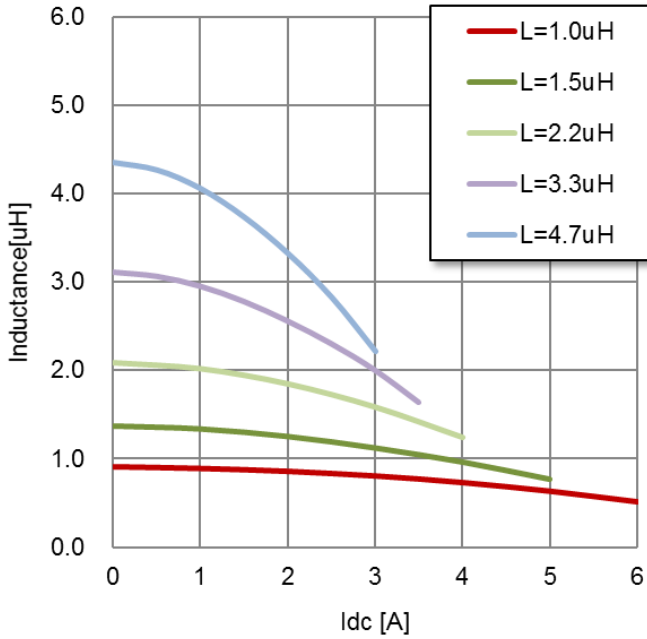
Isat : Depend on the Inductance Saturation. ( -30% Reduction from Initial L Value/ Test Freq. 1MHz )

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

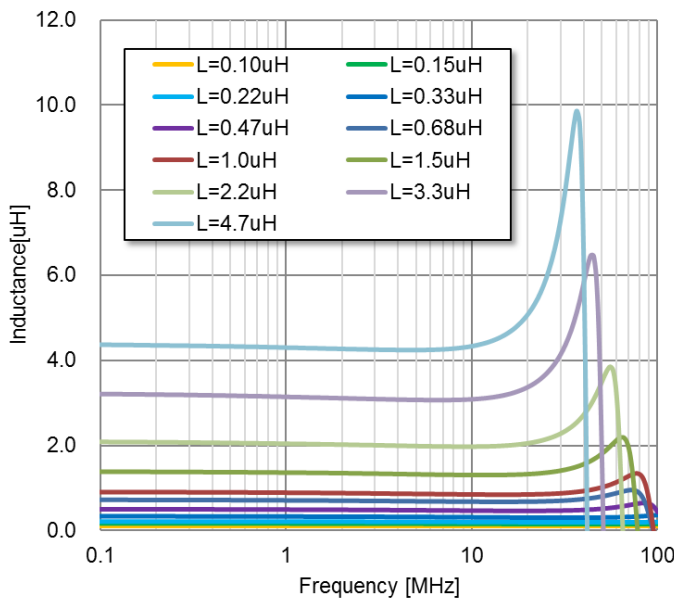
Rated Current: The less value which is Isat Max or Itemp Max.

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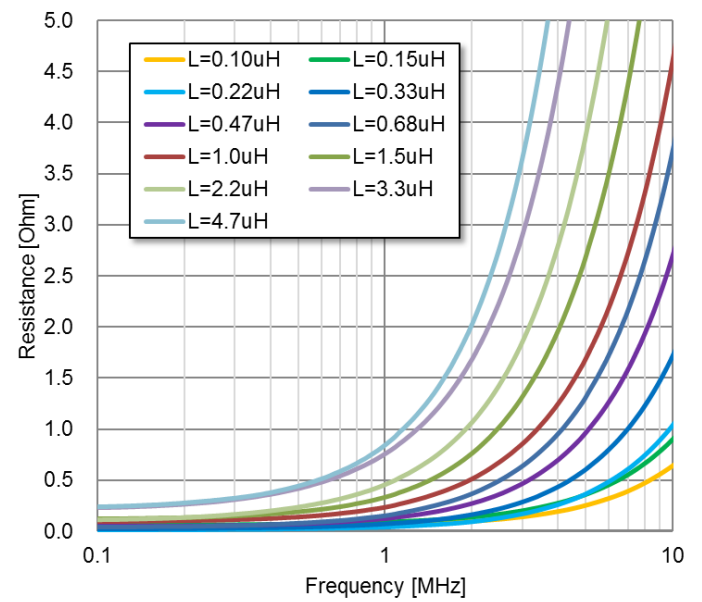
INDUCTANCE VS.DC SUPERPOSITION CHARACTERISTICS ( 1MHz )



L - FREQUENCY CHARACTERISTICS



R - FREQUENCY CHARACTERISTICS



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