

# TDK Thin Film Power inductor TFM201610GHM-TAA series

## FEATURES

- The thickness of this product is 1.0mm, and it is very thin compared with other same kind of products.
- This product consists of original fine copper pattern with micro-processing technology .
- The coil pattern is coated with metal magnetic material.
- Superior DC-Bias characteristics .
- This product corresponds to ROHS.

## APPLICATIONS

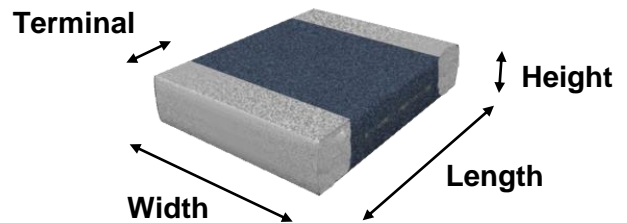
- Generic use for DC/DC Converter of portable device.
- Used for Smart phone, Feature phone, HDD, SSD, etc.

## PRODUCT IDENTIFICATIONS

**TFM 2016 10 GHM – 1R0 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 (1R0 : 1.0μH )
- (6) Inductance tolerance ( M : ±20% )
- (7) Packing style ( T : Taping )
- (8) Control mark

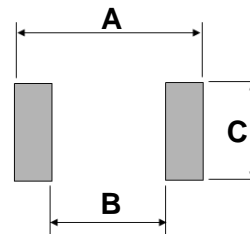
## PRODUCTS SHAPE



## DIMENSIONS

	Length ±0.2 [mm]	Width ±0.2 [mm]	Height Max. [mm]	Terminal Ref. [mm]
<b>TFM201610</b>	<b>2.0</b>	<b>1.6</b>	<b>1.0</b>	<b>0.5</b>

## RECOMMENDED RAND PATTERN



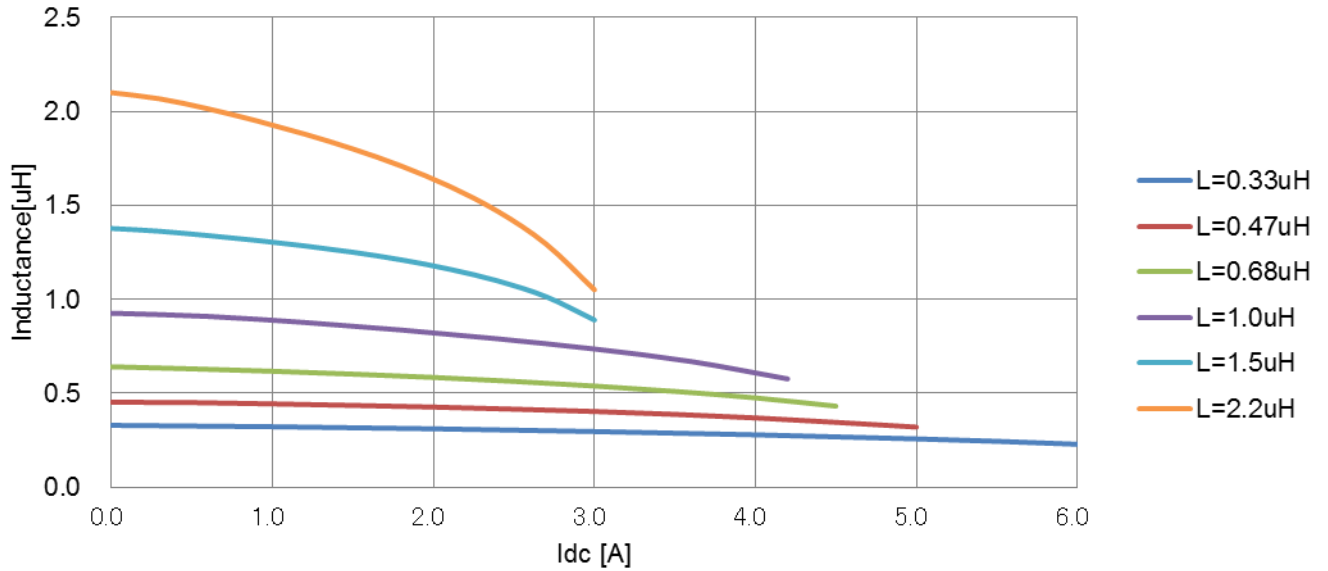
	A [mm]	B [mm]	C [mm]
<b>TFM201610</b>	<b>2.4</b>	<b>1.2</b>	<b>1.6</b>

## ELECTRICAL CHARACTERISTICS

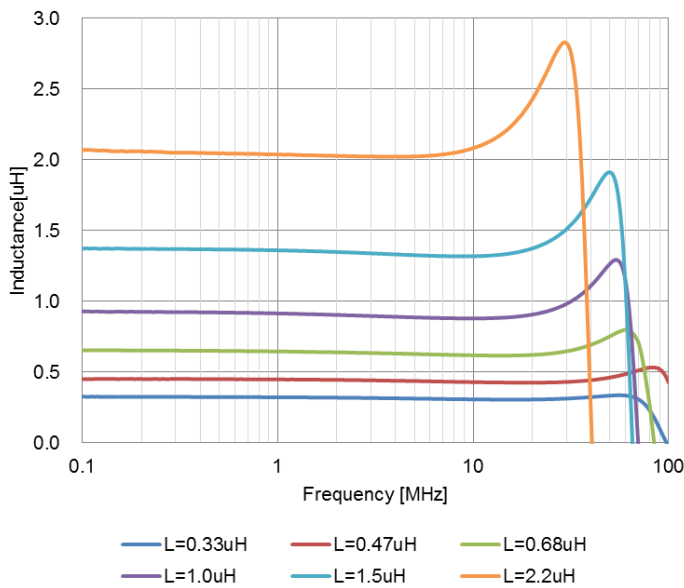
Identification	Inductance [μH]	Test frequency [MHz]	DC Resistance [Ohm]		Rated current			
			Max	Typ.	Idc-1 [A]		Idc2 [A]	
					Max	Typ.	Max	Typ.
TFM201610GHM-R33MTAA	0.33 +/-20%	1.0	0.031	0.025	6.0	6.2	4.4	4.9
TFM201610GHM-R47MTAA	0.47 +/-20%	1.0	0.041	0.032	4.7	5.0	3.9	4.4
TFM201610GHM-R68MTAA	0.68 +/-20%	1.0	0.050	0.040	4.2	4.5	3.5	3.9
TFM201610GHM-1R0MTAA	1.0 +/-20%	1.0	0.060	0.050	3.6	3.8	3.1	3.4
TFM201610GHM-1R5MTAA	1.5 +/-20%	1.0	0.132	0.110	2.7	3.0	2.0	2.2
TFM201610GHM-2R2MTAA	2.2 +/-20%	1.0	0.152	0.142	2.4	2.6	1.9	2.1

Idc 1 : Depend on the Inductance Saturation. ( -30% Reduction from Initial L Value/ Test Freq. 1MHz )  
 Idc 2 : Depend on the Self Temperature Rise ( 40deg.C Typ. )

**INDUCTANCE VS.DC SUPERPOSITION CHARACTERISTICS ( 1MHz )**



**L - FREQUENCY CHARACTERISTICS**



**Rac - FREQUENCY CHARACTERISTICS**

