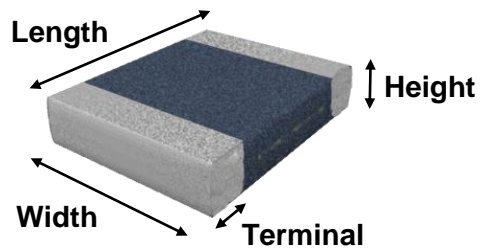


# TDK Thin Film Power inductor TFM201608GHM series

## FEATURES

- The package size of TFM2016 is L 2.0mm x W 1.6mm.
- The thickness of this product is 0.8mm, 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.

## PRODUCTS SHAPE



## APPLICATIONS

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

## DIMENSIONS

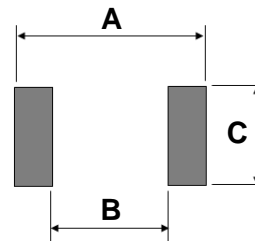
|              | Length<br>±0.2<br>[mm] | Width<br>±0.2<br>[mm] | Height<br>Max.<br>[mm] | Terminal<br>Ref.<br>[mm] |
|--------------|------------------------|-----------------------|------------------------|--------------------------|
| TFM201608GHM | 2.0                    | 1.6                   | 0.8                    | 0.5                      |

## PRODUCT IDENTIFICATIONS

**TFM 2016 08 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

## RECOMMENDED RAND PATTERN



|              | A<br>[mm] | B<br>[mm] | C<br>[mm] |
|--------------|-----------|-----------|-----------|
| TFM201608GHM | 2.3       | 1.1       | 1.6       |

## ELECTRICAL CHARACTERISTICS (Simulation Data)

| Identification       | Inductance<br>[μH] | Test<br>frequency<br>[MHz] | DC<br>Resistance<br>[Ohm] |       | Rated current |      |          |      |
|----------------------|--------------------|----------------------------|---------------------------|-------|---------------|------|----------|------|
|                      |                    |                            | Max                       | Typ.  | Idc-1 [A]     |      | Idc2 [A] |      |
|                      |                    |                            |                           |       | Max           | Typ. | Max      | Typ. |
| TFM201608GHM-R24MTAA | 0.24 +/-20%        | 1.0                        | 0.034                     | 0.027 | 3.6           | 4.0  | 4.0      | 4.5  |
| TFM201608GHM-R47MTAA | 0.47 +/-20%        | 1.0                        | 0.058                     | 0.046 | 3.3           | 3.6  | 3.1      | 3.4  |
| TFM201608GHM-1R0MTAA | 1.0 +/-20%         | 1.0                        | 0.106                     | 0.085 | 2.5           | 2.8  | 2.2      | 2.5  |
| TFM201608GHM-1R5MTAA | 1.5 +/-20%         | 1.0                        | 0.200                     | 0.160 | 2.0           | 2.3  | 1.7      | 1.9  |
| TFM201608GHM-2R2MTAA | 2.2 +/-20%         | 1.0                        | 0.250                     | 0.200 | 1.8           | 2.0  | 1.5      | 1.7  |

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. )

 Reply  Reply All  Forward  IM




Thu 1/29/2015 10:10 AM

Bob Kim <[bob.kim@us.tdk.com](mailto:bob.kim@us.tdk.com)>

Re:TFM201610G-1R5MTAA

To  Shookhoff, Andrew

Cc  Jacobson, Lowell

 You replied to this message on 1/29/2015 10:11 AM.

The operating temperature is -40C to + 85C. If you include the temp rise, then we can cover upto 125C.

Yes, they are halogen free and RoHS compliance . Tape and reel size is 3K pcs.

If you need any additional info, please let me know.

Thank you

Bob

Sent from IBM Notes Traveler

Visit the TDK website at: <http://www.tdk.com>

Shookhoff, Andrew --- TFM201610G-1R5MTAA ---

From: "Shookhoff, Andrew" <[ashookho@qti.qualcomm.com](mailto:ashookho@qti.qualcomm.com)>

To: [bob.kim@us.tdk.com](mailto:bob.kim@us.tdk.com)

Cc: "Jacobson, Lowell" <[lowellj@qti.qualcomm.com](mailto:lowellj@qti.qualcomm.com)>

Date: Thu, Jan 29, 2015 8:01 AM

Subject: TFM201610G-1R5MTAA