

## Inductors

## MDWK4040T220MM



## ■ Features

- Item Summary  
22uH±20%, 1.2A, 4.0x4.0x2.0mm
- Lifecycle Stage  
New PN available
- Standard packaging quantity (minimum)  
Taping Embossed 700pcs

## ■ Products characteristics table

Inductance	22 uH ± 20 %
Case Size (mm)	4.0x4.0
Rated Current (max)	1.2 A
Saturation Current (max)	1.5 A ( $\Delta L=30\%$ )
Saturation Current (typ)	2.1 A ( $\Delta L=30\%$ )
Temperature Rise Current (max)	1.2 A ( $\Delta T=40^\circ\text{C}$ )
Temperature Rise Current (typ)	1.4 A ( $\Delta T=40^\circ\text{C}$ )
DC Resistance (max)	0.46 $\Omega$
DC Resistance (typ)	0.4 $\Omega$
LQ Measuring Frequency	1 MHz
Operating Temp. Range	-40 to +125 $^\circ\text{C}$ (Including-self-generated heat)
Temperature characteristic (Inductance change)	$\pm 10 \%$
RoHS Compliance (10 subst.)	Yes
REACH Compliance (223 subst.)	Yes
Halogen Free	Yes
Soldering	Reflow

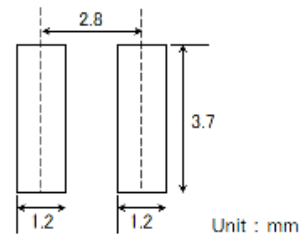
## ■ External Dimensions

Dimension L	4.0 ± 0.2 mm
Dimension W	4.0 ± 0.2 mm
Dimension H	Max 2.0 mm
Dimension e	1.1 ± 0.2 mm
Dimension f	2.5 ± 0.2 mm

## ■ Recommended Land Patterns

【推奨のランドパターン】  
 二層基板の場合  
 ・両面銅箔を有する銅箔基板に両面銅箔を貼付し、両面銅箔をエッチングして、両面銅箔を露出させる。

【Recommend Land Pattern】  
 Surface Mounting  
 ・Two-layer board with copper foil on both sides.  
 ・Apply the soldering process to these products on reflow soldering.



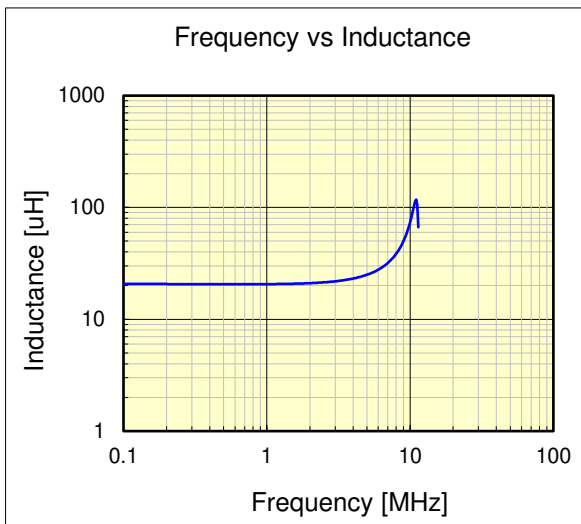
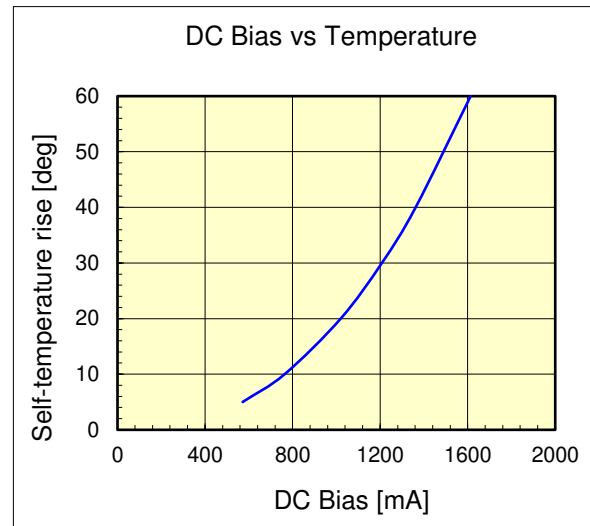
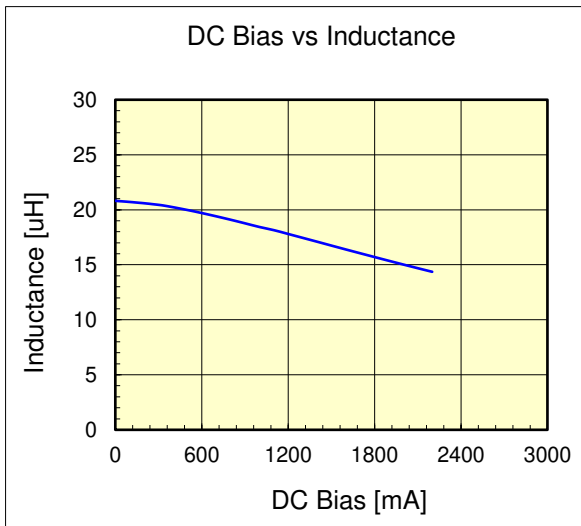
**Metal Core SMD Power Inductors (MCOIL™, MD series)**

MCOIL™  
MDWK4040T220MM



Dimension	unit : mm	unit : inch
Length :	4.0 +/- 0.2	( 0.157 +/- 0.008 )
Width :	4.0 +/- 0.2	( 0.157 +/- 0.008 )
Height :	2.0 max.	( 0.079 max. )

Inductance :	22	uH	( test freq at 1MHz )
DC Resistance :	0.4 / 0.46	ohm	( typ / max )
Saturation Current :	2,100 / 1,500	mA	( typ / max )
Temp. rise Current :	1,400 / 1,200	mA	( typ / max )
Saturation current typical : 30% reduction from initial L value.			
Temp rise Current typical : Temperature will rise by 40 deg C			



The data is reference only. Electrical characteristics vary depending on environment or measurement condition. TAIYO YUDEN reserves the right to make change to the data at any time without notice. Before making final selection, please check product specification.

Please read this notice before using the TAIYO YUDEN products.



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