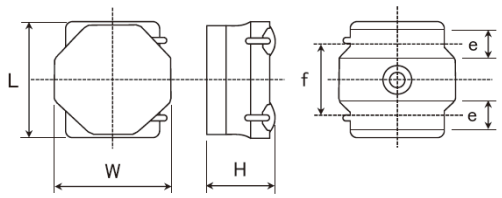
Spec Sheet

Metal Core SMD Power Inductors for Automotive / Industrial Applications (MCOIL™, MD series)

MDMK2020T1R5MMV



Features

- Item Summary

  1.5uH±20%, 1.65A, 2.0x2.0x1.2mm
- Lifecycle Stage

  Mass Production
- AEC-Q200 qualified
- Standard packaging quantity (minimum)

  Taping Embossed 2500pcs

Products characteristics table

Inductance	1.5 uH ± 20 %
Case Size (mm)	2.0x2.0
Rated Current (max)	1.65 A
Saturation Current (max)	2 A
Saturation Current (typ)	2.3 A
Temperature Rise Current (max)	1.65 A
Temperature Rise Current (typ)	1.75 A
DC Resistance (max)	86 mΩ
DC Resistance (typ)	75 mΩ
LQ Measuring Frequency	1 MHz
Operating Temp. Range	-40 to +125 ℃ (Including-self-generated heat)
Temperature characteristic (Inductance change)	± 10 %
RoHS2 Compliance (10 subst.)	Yes
REACH Compliance (173 subst.)	Yes
Halogen Free	Yes
Soldering	Reflow

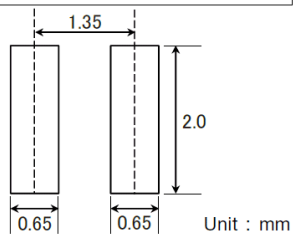
External Dimensions

Dimension L	2.0 ±0.15 mm
Dimension W	2.0 ±0.15 mm
Dimension H	Max 1.2 mm
Dimension e	0.5 ±0.2 mm
Dimension f	1.25 ±0.2 mm

Recommended Land Patterns

【推奨ランドパターン】
実装上の注意
・実装状態を確認の上ご使用くださいますようお願いいたします。
・本製品のはんだ付けはリフローはんだ工法に限ります。

【Recommended Land Patterns】
Surface Mounting
・Mounting and soldering conditions should be checked beforehand.
・Applicable soldering process to these products is reflow soldering only.



2017.04.30

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

Metal Core SMD Power Inductors for Industrial / Automotive Comfort and Safety Applications
(MCOIL™, MD series)(AEC-Q200 qualified)

MCOIL TM

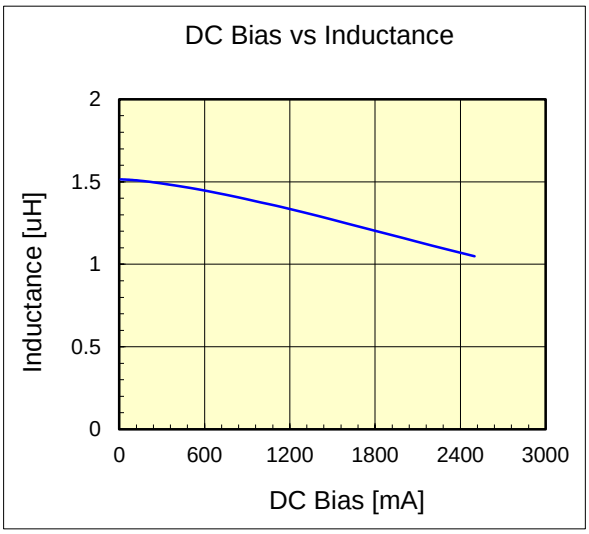
MDMK2020T1R5MMV

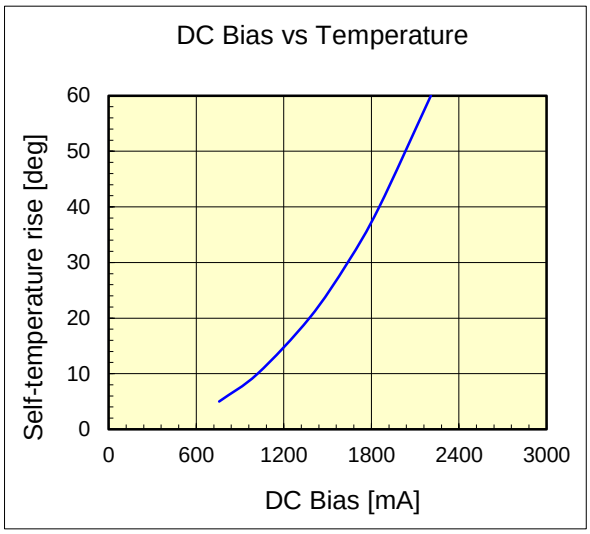
AEC-Q200 qualified

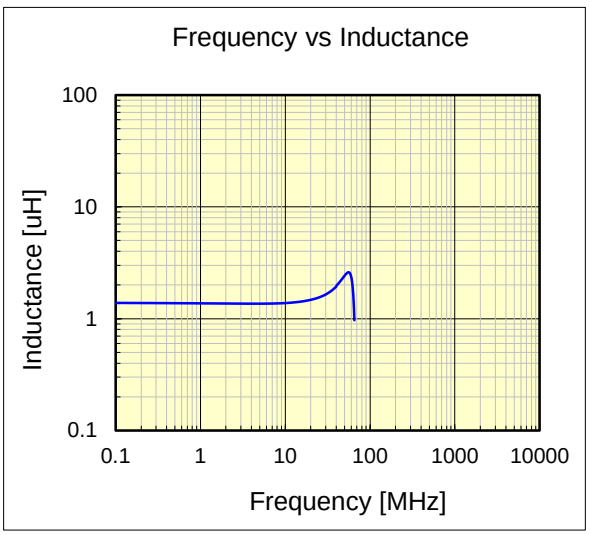
Dimension	unit : mm	unit : inch
Length :	2.0 + / - 0.15	(0.079 + / - 0.006)
Width :	2.0 + / - 0.15	(0.079 + / - 0.006)
Height :	1.2 max.	(0.047 max.)

Inductance :	1.5		uH	(test freq at 1MHz)
DC Resistance :	0.075	/	0.086	ohm (typ / max)
Saturation Current :	2,300	/	2,000	mA (typ / max)
Temp. rise Current :	1,750	/	1,650	mA (typ / max)

Saturation current typical : 30% reduction from initial L value.
Temp rise Current typical : Temperature will rise by 40 deg C
Maximum rated voltage : DC 25 V







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The products are tested based on the test conditions and methods defined in AEC-Q200.
Please consult with TAIYO YUDEN for the details of the product specification and AEC-Q200 test results, etc., and please review and approve TAIYO YUDEN's product specification before ordering.