MFV Series (for automotive)

Multilayer ferrite

Size 2012



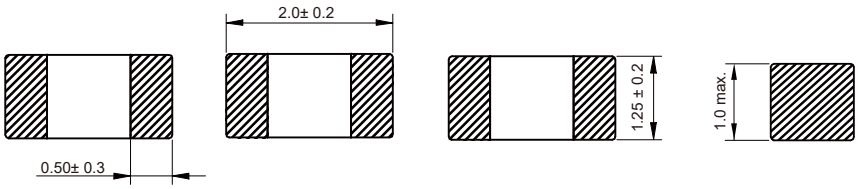
FEATURES

- The MFV series include inductors for decoupling circuits that have top-class DC superimposition characteristics and low DC resistance.
- They are compatible with wide frequency band noise, from low to high frequency.
- AEC-Q200 qualified
- Operating temperature:-55°to +125°C(including self-temperature rise)
- Quantity: 3000pcs

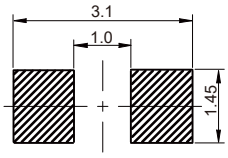
APPLICATION

- Inductors for decoupling circuits of Automotive equipment

Dimensions: [mm]



Land Pattern: [mm]



Electrical Properties:

Part No	Inductance (μH)	Tolerance	Test Frequency (Hz)	Temperature Rise Current Max. (mA)	DC Resistance Max. (Ω)	DC Resistance Typ (Ω)
MFV2012-2R2M	2.2	±20%	1M/60mv	1000	0.20	0.15
MFV2012-3R3M	3.3	±20%	1M/60mv	700	0.24	0.20
MFV2012-4R7M	4.7	±20%	1M/60mv	700	0.28	0.23

Temperature Rise Current: The actual value of DC current when the temperature rise is △T=40°C

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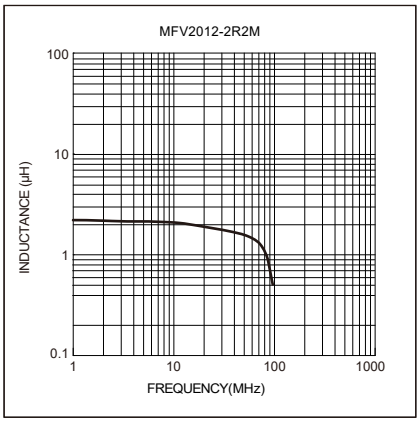
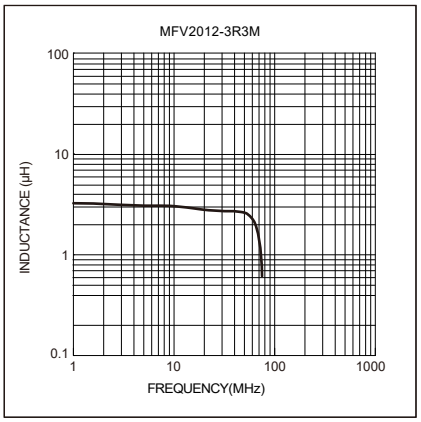
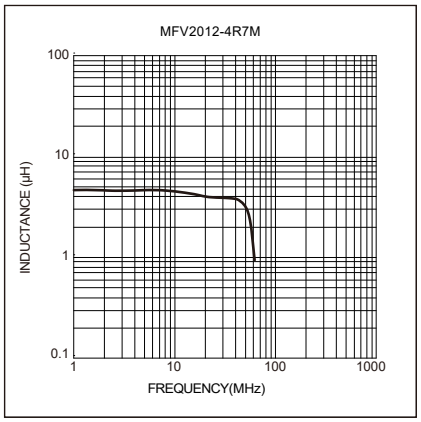
Typical Electrical Characteristics:

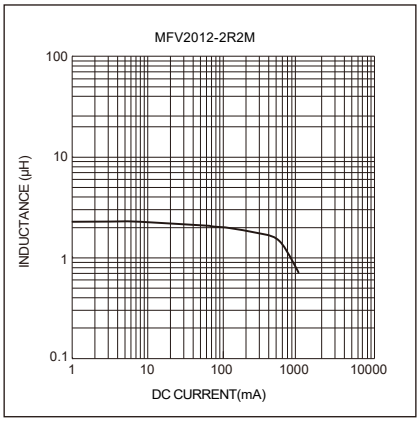
Inductance & Frequency Characteristics:

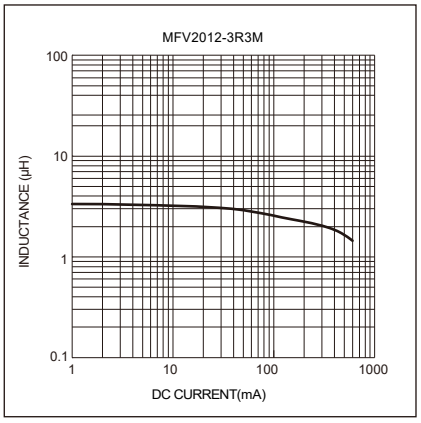


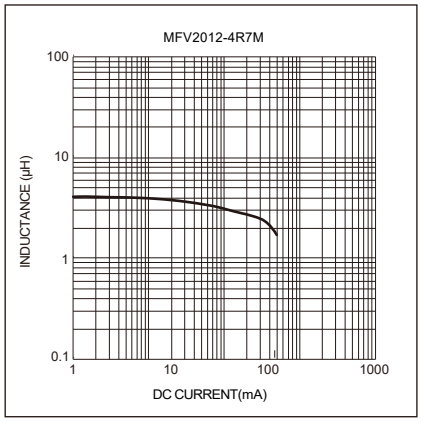




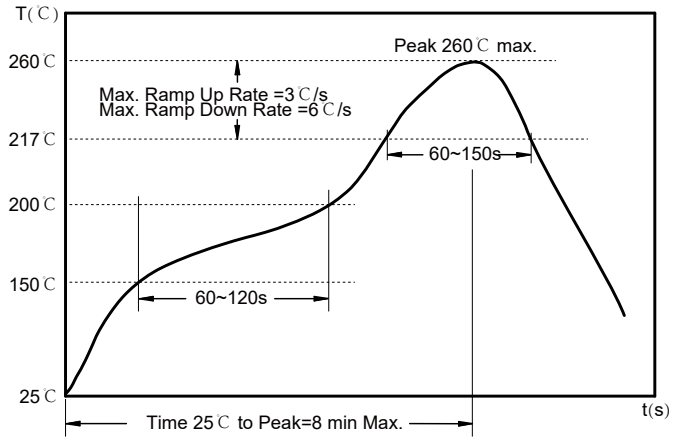
Inductance & DC Bias Current:







Soldering Reflow:



Preheat condition: 150 ~200℃/ 60~120 sec.

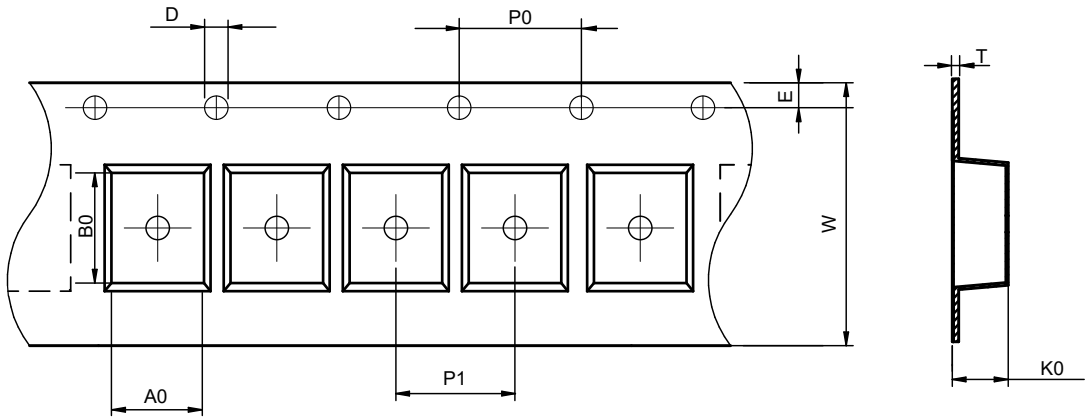
Allowed time above 217℃: 60~150 sec.

Max temperature: 260℃.

Allowed Reflow time: 3x max.

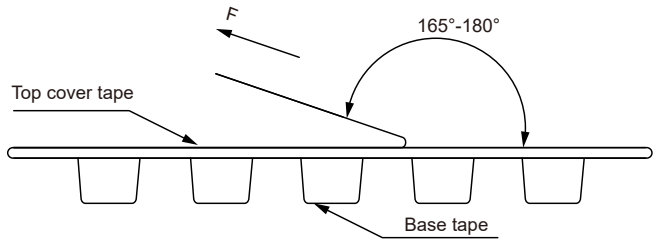
Packaging Information:

Tape Dimension:



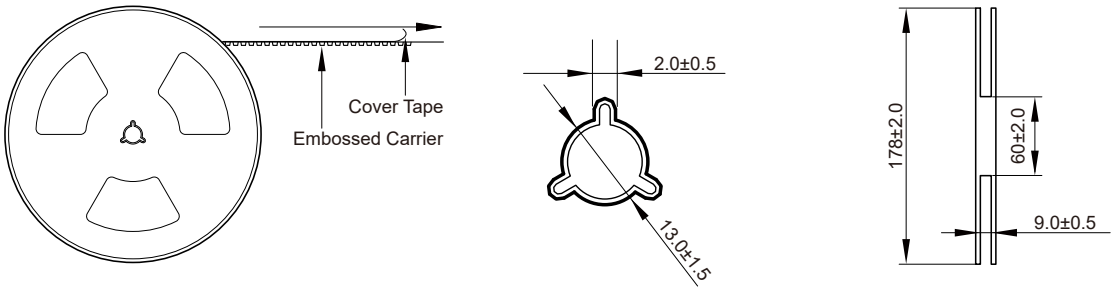
Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
MFV2012	1.4±0.1	2.25±0.1	1.5±0.1	4.0±0.1	4.0±0.1	8.0±0.3	1.0±0.1	1.75±0.1	0.22±0.05

Peel force of top cover tape:

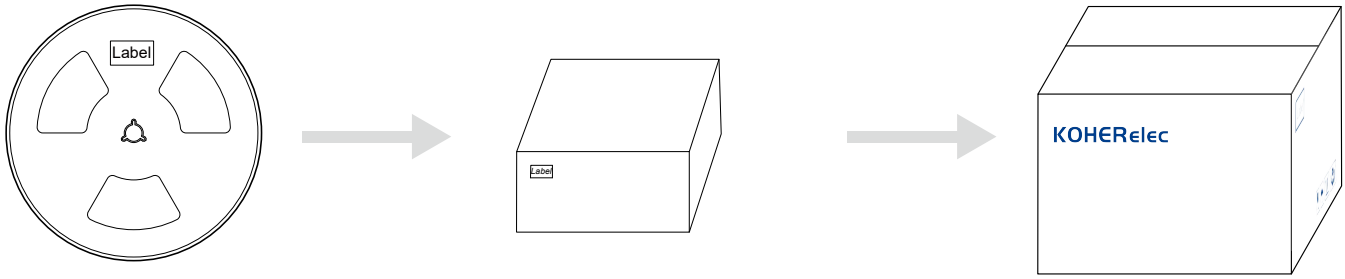


The peel force of top cover tape shall be between 0.15 to 0.58 N

Reel Dimension：[mm]



Packaging Quantity:



3000 Pcs/Reel

5 Reel /Inner box(15K Pcs)

8 Inner box/Carton box(120K Pcs)

Cautions and Warnings:

Storage Conditions：

- The storage period is within 12 months after the completion of production. Be sure to follow the storage conditions (temperature: -5 to 35°C, humidity: 75% RH Max).If the storage period elapses, the soldering of the terminal electrodes may deteriorate.The warranty period is one year.
- Product should not be exposed to environment with high temperature, high humidity, dust, corrosive gas and etc.
- Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
- Please always handle products carefully to prevent any damage caused by dropping down or inappropriate removing.

Operation Instructions:

- Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.
- Before soldering, be sure to preheat components.The preheating temperature should be set so that the temperature difference between the solder temperature and chip temperature does not exceed 150°C.
- Soldering corrections after mounting should be within the range of the conditions determined in the specifications.If overheated, a short circuit, performance deterioration, or lifespan shortening may occur.
- Generally, Koher might not be familiar with either customer's specific application or actual requests as customer does.As a result customer shall be responsible for checking and confirming whether Koher product with the performance described in the product specification is suitable for using in customer's particular application or not.