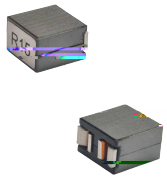
MDVR Series
Molding SMD Power Inductors



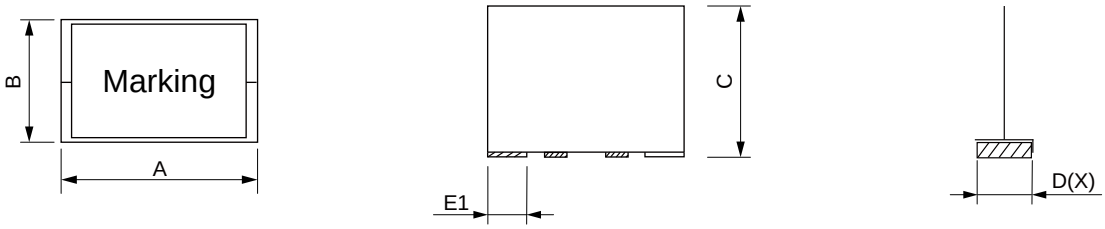
FEATURES

- High satura on characteris c core for large satura on current and low loss.
- Closed magne c circuit design reduces leakage flux.
- High precision DCR.
- Halogen Free & ROHS compliant.
- Opera ng temperature: -40 to +125 °C

APPLICATION

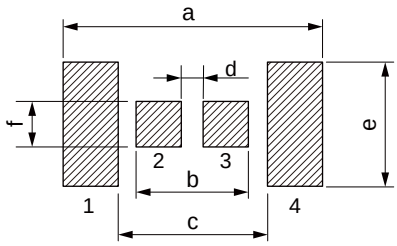
- AI Servers, Data Centers, GPU/AI Accelerators.
- Desktop Motherboards, CPU/GPU Power Delivery.
- Mul -phase VRM, High-current DC-DC Converters.
- Networking Equipment, Communica on Infrastructure.

Dimensions: [mm]

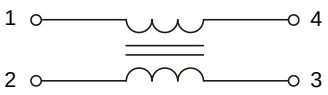


MDVR090610	9.6 max	6.4 max	10.4 max	3.2 typ	3.2 typ	1.50 typ	1.00 typ
MDVR10056	10.2 max	5.0 max	6.0 max	4.0±0.3	1.4±0.5	1.25 typ	1.20 typ
MDVR120612	12.0 max	6.0 max	12.2 max	2.55 typ	2.55 typ	1.63 typ	1.27 typ

Land Pattern: [mm]



Schematic:



MDVR090610	10.1	3.9	5.8	1.0	3.8	3.8
MDVR10056	10.4	4.4	6.9	1.0	4.5	1.9
MDVR120612	12.2	4.39	7.94	0.85	3.05	3.05

Electrical Properties:

MDVR090610-R15L	150	±15%	71	65	0.125	0.45

MDVR10056F-R12K	120	±10%	40	54	0.29	0.70

MDVR120612-R10K	100	±10%	75	130	0.125	0.37

Saturation Current will cause L0 to drop approximately 30%.
Temperature Rise Current: The actual value of DC current when the temperature rise is △T=40 °C.

Soldering Reflow:

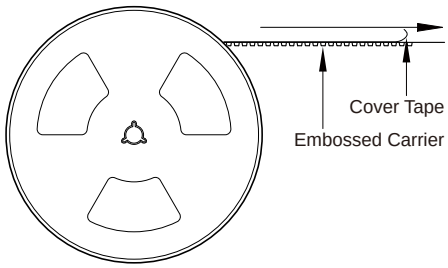
Packaging Information:

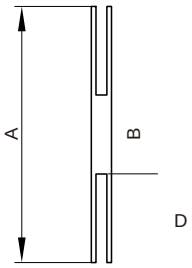
Tape Dimension：[mm]

Product Marking:

Marking	Printing (In $_{d}$uctance)

Reel Dimension：[mm]





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 5dx,ble for q0 -84.92 5962 -84.92 reW n0.0116 w q 1 0 0 1 47.6.317 169.7726m0 0 m-1.8.48 0 TlSQq 1 0 0 1 47.3.6769685