

FEATURES

- Shielded construction
- Capable of corresponding high frequency.
- Low loss realized with low DCR.
- High performance (Isat) realized by metal dust core.
- Ultra low buzz noise, due to composite construction.
- 100% Lead(Pb)-Free and RoHS compliant.
- AEC-Q200 qualified
- Operating temperature: -55 to +155 °C(including self-temperature rise)
- Quantity: 500PCS

APPLICATION

- Noise filter for various drive circuitry requiring high temperature operation and peak current handling capability.
- Boost-Converter
- Buck-Converter DC/DC



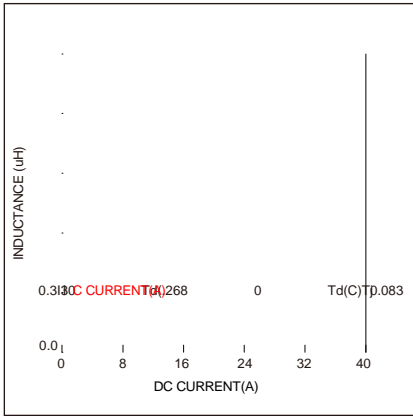
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|---------------|------|------|------|------|-------|-------|---------|
| MDSA1050-1R0M | 1.00 | ±20% | 24.0 | 32.0 | 2.80 | 3.2 | 2.5±0.3 |
| MDSA1050-1R5M | 1.50 | ±20% | 22.0 | 26.0 | 3.60 | 4.0 | 2.5±0.3 |
| MDSA1050-2R2M | 2.20 | ±20% | 19.0 | 19.5 | 5.40 | 6.0 | 3.0±0.3 |
| MDSA1050-3R3M | 3.30 | ±20% | 16.5 | 17.0 | 8.40 | 9.5 | 3.0±0.3 |
| MDSA1050-4R7M | 4.70 | ±20% | 14.5 | 15.5 | 9.70 | 10.9 | 3.0±0.3 |
| MDSA1050-5R6M | 5.60 | ±20% | 12.5 | 14.5 | 13.0 | 14.8 | 3.0±0.3 |
| MDSA1050-6R8M | 6.80 | ±20% | 11.6 | 13.5 | 15.5 | 17.8 | 3.0±0.3 |
| MDSA1050-8R2M | 8.20 | ±20% | 9.6 | 13.0 | 16.5 | 19.3 | 3.0±0.3 |
| MDSA1050-100M | 10.0 | ±20% | 7.2 | 12.5 | 19.5 | 22.4 | 3.0±0.3 |
| MDSA1050-150M | 15.0 | ±20% | 6.2 | 8.1 | 33.0 | 40.0 | 3.0±0.3 |
| MDSA1050-220M | 22.0 | ±20% | 5.7 | 5.7 | 45.0 | 55.0 | 3.0±0.3 |
| MDSA1050-330M | 33.0 | ±20% | 5.2 | 5.5 | 75.0 | 88.0 | 3.0±0.3 |
| MDSA1050-470M | 47.0 | ±20% | 4.2 | 3.8 | 108.0 | 130.0 | 3.0±0.3 |

Saturation Current will cause L to drop approximately 30%

Temperature Rise Current: The actual value of DC current when the temperature rise is $\Delta T=40^{\circ}\text{C}$



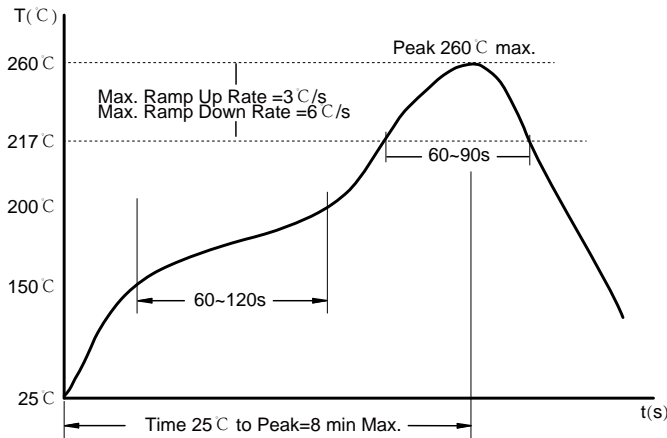
Typical Electrical Characteristics:



0.313 DC CURRENT 0.268 0 Td(C) 0.083 3.9360 Td(.55 0.494 s03 - 611.668 cm0 0 m0 0



Soldering Reflow:



Preheat condition: 150 ~200 °C / 60~120 sec.

Allowed time above 217 °C : 60~90 sec.

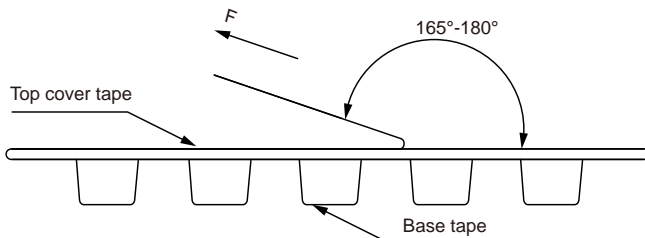
Max temperature: 260 °C .

Allowed Reflow time: 2x max.

Packaging Information:

Tape Dimension:

Peel force of top cover tape:

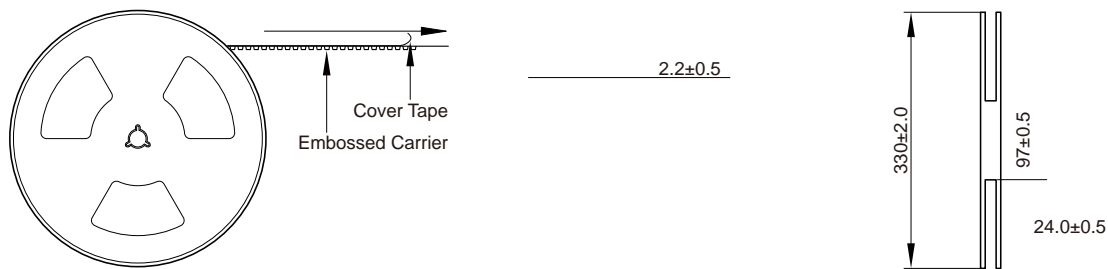


The peel force of top cover tape shall be between 0.1 to 1.3 N

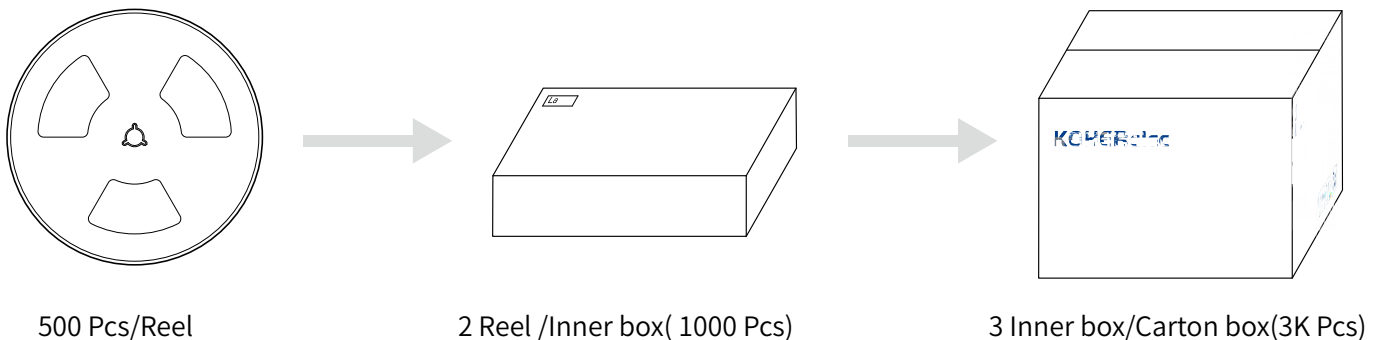
Product Marking:

| | |
|---------|--------------------------|
| Marking | KH+Printing (Inductance) |
|---------|--------------------------|

Reel Dimension: [mm]



Packaging Quantity:



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.