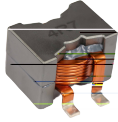


# THC Series

## SMD High Current Inductor

### Size 2818



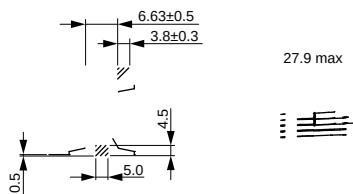
#### CHARACTERISTICS

- Magnetically shielded structure, excellent resistance to electromagnetic interference.
- 3 pins structure design, improved reliability.
- Flat wire winding, achieve a low DC resistance.
- Low power loss, suitable for applications of wide temperature and frequency range.
- Operating Temperature: -40 °C to +125 °C
- Quantity: 20pcs

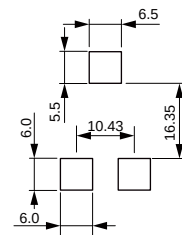
#### APPLICATION

- High current DC/DC converter
- LC filter

#### Dimensions: [mm]



#### Land Pattern: [mm]



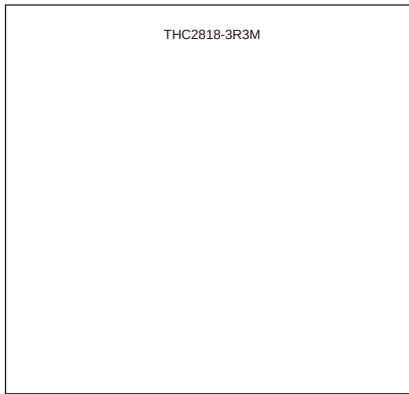
#### Electrical Properties:

| Part No      | Inductance<br>@ 100KHz/0.1V<br>(μH) | Tolerance | Temperature<br>Rise Current<br>Typ.<br>(A) | Saturation<br>Current<br>Typ.<br>(A) | DC<br>Resistance<br>Typ.<br>(mΩ) | DC<br>Resistance<br>Max.<br>(mΩ) |
|--------------|-------------------------------------|-----------|--------------------------------------------|--------------------------------------|----------------------------------|----------------------------------|
| THC2818-3R3M | 3.30                                | ±20%      | 28.0                                       | 92.5                                 | 2.60                             | 2.86                             |
| THC2818-4R7M | 4.70                                | ±20%      | 28.0                                       | 61.2                                 | 2.60                             | 2.86                             |
| THC2818-6R8M | 6.80                                | ±20%      | 28.0                                       | 45.0                                 | 2.60                             | 2.86                             |
| THC2818-100M | 10.0                                | ±20%      | 28.0                                       | 31.2                                 | 2.60                             | 2.86                             |
| THC2818-150M | 15.0                                | ±20%      | 28.0                                       | 21.2                                 | 2.60                             | 2.86                             |
| THC2818-220M | 22.0                                | ±20%      | 28.0                                       | 14.0                                 | 2.60                             | 2.86                             |
| THC2818-330M | 33.0                                | ±20%      | 28.0                                       | 8.70                                 | 2.60                             | 2.86                             |

Saturation Current will cause L to drop approximately 20%

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

## Typical Electrical Characteristics:



## Soldering Reflow:

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

Allowed time above 217 °C: 60~150 sec.

Max temperature: 260 °C.

## 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.