

# SCM Series

## SMD Common Mode Inductor

### Size 6536

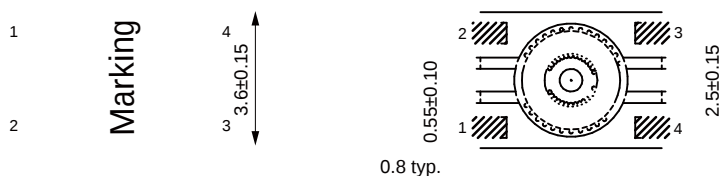
#### FEATURES

- Chip common mode filter for large current applications.
- Low profile design makes it optimal for surface mounting.
- Operating temperature -40~+105
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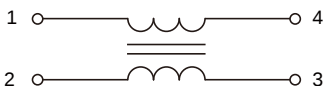
#### APPLICATIONS

- Power line noise countermeasure for various electronic equipment
- Noise countermeasure for adapter lines and battery lines or larger electronic equipment such as note PCs and word processors

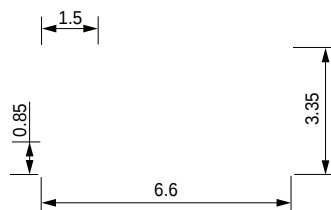
Dimensions: [mm]



Schematic:



Land Pattern: [mm]



Electrical Properties:

| Part No      | Inductance<br>@ 10KHz/0.1V<br>±50%<br>1-4=2-3 | Leakage<br>Inductance<br>@1MHz/1mA<br>Typ.<br>(nH)<br>1-4(2-3 short) | DC<br>Resistance<br>Max.<br>1-4=2-3 | Rated<br>Current<br>Max.<br>(A) | Rated<br>Voltage<br>Typ.<br>(V) | Impedance<br>Typ. |        | Hi-Pot<br>(Vdc)<br>3mA/1S<br>1,4-2,3 |
|--------------|-----------------------------------------------|----------------------------------------------------------------------|-------------------------------------|---------------------------------|---------------------------------|-------------------|--------|--------------------------------------|
| SCM6536-100Y | 10                                            | 580                                                                  | 0.24                                | 0.3                             | 80                              | 1200              | 35-570 | 250                                  |
| SCM6536-470Y | 47                                            | 280                                                                  | 0.16                                | 0.3                             | 80                              | 300               | 4-1600 | 250                                  |
| SCM6536-510Y | 51                                            | 270                                                                  | 0.16                                | 0.3                             | 80                              | 300               | 4-1600 | 250                                  |
| SCM6536-820Y | 82                                            | 370                                                                  | 0.20                                | 0.3                             | 80                              | 440               | 3-850  | 250                                  |
| SCM6536-101Y | 100                                           | 530                                                                  | 0.22                                | 0.3                             | 80                              | 500               | 3-660  | 250                                  |
| SCM6536-181Y | 180                                           | 760                                                                  | 0.25                                | 0.3                             | 80                              | 1000              | 3-250  | 250                                  |
| SCM6536-221Y | 220                                           | 950                                                                  | 0.28                                | 0.3                             | 80                              | 1200              | 3-210  | 250                                  |
| SCM6536-331Y | 330                                           | 1300                                                                 | 0.30                                | 0.3                             | 80                              | 2000              | 3-120  | 250                                  |

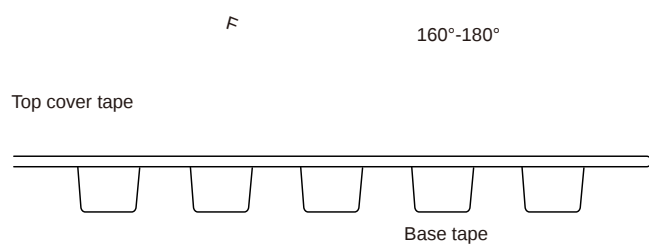
Temperature Rise Current: The actual value of DC current when the temperature rise is T=40°C







Peel force of top cover tape:





## 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.

### Conformal coating:

- The inductance value may change due to the high cure stress of the resin used for coating or molding.
- An open circuit may occur due to mechanical stress from the resin, its amount, cured shape, or operating conditions.
- Please exercise careful attention when selecting a resin for the coating or molding process.
- Prior to using the coating resin, please verify that no reliability issues are observed.
- When applying conformal coating for product protection, materials with a high shrinkage rate should be avoided. If such materials must be used, it is recommended to apply silicone around the inductor core in a closed loop to prevent the conformal coating from flowing into or penetrating the windings, thereby avoiding open-circuit failures caused by the coating's thermal stress.