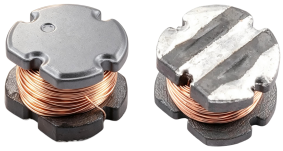
FEATURES 特征

- High flexibility & reliability.
  高适配性，性能可靠
- Suitable for surface mounting equipment.
  适合表面贴装
- Non-magnetic shielded structure, good heat dissipation.
  开磁路结构设计，散热性能良好
- Operating Temp：-40℃~+100℃(Including self heating)
  工作温度范围:-40℃~+100℃(包括自身温度上升)

RoHS Reach SVHC-Free Halogen Free



APPLICATIONS 用途

- Humidifier & consumer electronics.
  应用于加湿器等消费电子产品.

PART NUMBERING 产品型号

ACD	75	-	250M801M	P3
①	②		③	④

① Series Name	
ACD	Wire Wound SMD Power Inductors

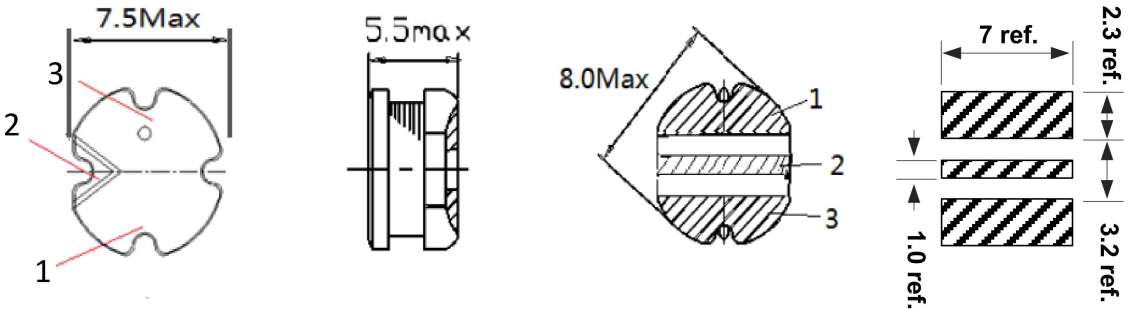
③ Inductance	
Code	Nominal inductance［μH］
250M	25uH±20%
801M	800uH±20%

② External Dimensions	
75	7.8x7.0x5.0

④ Internal Code
P3

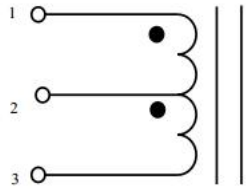
DIMENSIONS & RECOMMENDED LAND PATTERN 尺寸及推荐焊盘

Unit: mm



Recommended Land Pattern

WINDING DIAGRAM 绕组示意图

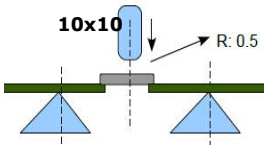
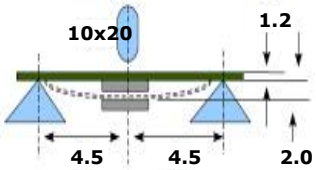
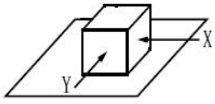


ELECTRICAL CHARACTERISTICS 特性规格表

Part Number	Inductance		Max. DC Resistance		Max. Rating Current	
Unit	μH ±20%		Ω		A	
Line	Pin1-2	Pin2-3	Pin1-2	Pin2-3	Pin1-2	Pin2-3
ACD75-250M801MP3	25	800	0.500	4.000	1.300	0.3

- Test condition: @100KHz, 0.2V
- Max. Rating Current: This indicates the value of current when the inductance is 30% lower than it's initial value at D.C. superimposition or D.C.current when at ΔT=40°C,whichever is lower. (Ta=20°C)

RELIABILITY TEST 可靠性试验

SN	Test Item	Test Method	Standard	Samples (pcs)
1	Thermal Shock	Temperature: - 40 °C / +85 °C kept stabilized for 30 minutes ; Cycle: 100 cycles (power off)	No appearance deformation Inductance deviation within ±5%	30
2	Humidity Resistance	Humidity: 90%- 95% RH; Temperature: 40±2 °C Time: 500±12 hours	No appearance deformation Inductance deviation within ±5%	30
3	HighTemperature	Temperature: 105±2 °C Time: 500±12 Hours	No appearance deformation Inductance deviation within ±5%	30
4	Low Temperature	Temperature: - 40±2 °C Time: 500±12 Hours	No appearance deformation Inductance deviation within ±5%	30
5	Temperature and Humidity Cycle	Temperatur e 25 °C ± 2 °C 55 °C ±2 °C 25 ° C ±2 °C Humidity: 90% - 95% RH; 95% - 96% RH; 90% - 95% RH Time: 3.0 hours; 5.0 hours; 3.0 hours Cycle: 100 cycles	No appearance deformation Inductance deviation within ±5%	30
6	Reflow Heating Resistance	IR-Reflow (3 times) Preheat: 150~200°C Time: 60-120 sec. Peak Temp.: 255±5 °C Time: 30 sec. Reflow Temp.: above 217 °C Time: 60-150 sec.	No appearance deformation Inductance deviation within ±5%	30
7	Iron Heating Resistance	Soldering Temp.: 350 ±5 °C Time: 3±1 sec.	No appearance deformation Inductance deviation within ±5%	30
8	Withstanding Voltage	100 VDC/ 1 minute, between core & winding	No dielectric breakdown	30
9	Rated Current	Temperature: 25±3 °C; Time: 10 minutes Load: Rated Current	Inductance and Temp. Rise variation within spec.	30
10	Bending Strength	Uint: mm IR-Reflow (2 times) Force : 1 kgf/ min. 	No appearance deformation Inductance deviation within ±3%	30
11	Flexure Strength	Uint: mm IR-Reflow (2 times) Solder cream 0.15mm 	No appearance deformation Inductance deviation within ±3%	30
12	Electrode Strength	Mounted on PCB Pushed in X, Y direction, Strength: 5N for 10±2 sec. 	No electrode detachment No appearance deformation Inductance deviation within ±3%	30
13	Vibration	Frequency: 10Hz-55Hz Amplitude: 1.5mm Direction: X,Y,Z Product: after packing Time: 2 hours for each	No appearance deformation Inductance deviation within ±3%	30
14	Dropping	Freely dropped down; Height: 1m ; Direction: 1 Angle ridge; 3 surfaces; Product: after packing	No appearance deformation Inductance deviation within ±3%	30

Remark: Before/after reliability test for above each item, must carry out visual inspection and/or measure crucial dimension inspection if needed. If confirmation of defects is required, use visual aids or equipment such as 10X magnifying glass, microscope etc. to check.
Specifications subject to change without notice. Please check our website for latest information.

PRECAUTIONS ON USE 使用注意事项

General

◆ Products should not be kept in unsuitable storage conditions, such as areas susceptible to high temperatures, high humidity, dust or corrosion.

◆ Don't use products in a place where dew condenses. Since dew condensation caused by temperature change, please pay special attention when using products in a sealed condition.

◆ Always handle products with care.

◆ Don't touch electrodes directly with bare hands as oil secretions may inhibit soldering.

◆ Always ensure optimum conditions for soldering.

◆ Don't bend the terminals or subject them to excessive stress.

◆ Please ensure that all terminals and case lugs are completely fixed with solder onto PCB.

◆ Avoid placing chip inductors near the edge of the PCB.

◆ Our SMD coils are designed for automatic mounting. Please be careful if soldering by hand.

◆ Don't touch any exposed winding part and avoid coming into contact with the guide of electrode in automatic mounting.

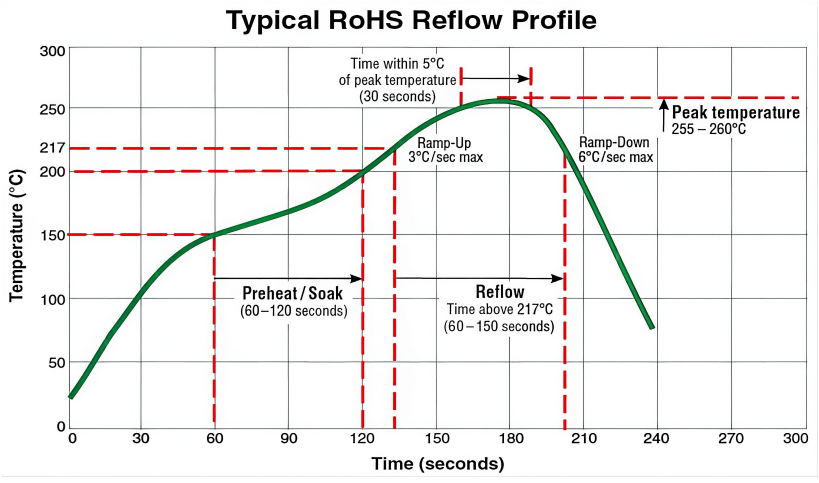
◆ Our specification limits the quality of the component as a single unit. Please ensure the component is thoroughly evaluated in your application circuit.

◆ When using our high voltage inverter transformers, place keep 2mm away from the electric conductor.

Soldering

◆ **Reflow soldering**

Please refer to the following recommended condition. Please do not add any stress to a product until it returns in normal temperature after reflow soldering.



◆ **Lead free soldering**

When using products with lead free soldering, we request to use them after confirming of adhesion, temperature of resistance to soldering heat, soldering etc. sufficiently.

◆ **Soldering iron**

Put the soldering iron on the land-pattern.
Soldering iron's temperature - Below 350°C (FCD43 Type).
Duration - 3 seconds or less
The soldering iron should not directly touch the inductor.

PRECAUTIONS ON USE 使用注意事项

Cleaning

- Refrain from cleaning coils. Ultrasonic cleaning may cause broken products. If it is a must, kindly refer to following advice or consult with our company.
- When cleaning the PC board after the inductors are all mounted, select the appropriate cleaning solution according to the type of flux used and purpose of the cleaning (e.g. to remove soldering flux or other materials from the production process.)
- Cleaning conditions should be determined after verifying through a test run, the cleaning process does not affect the inductor's characteristics.
- The use of inappropriate solutions can cause foreign substances such as flux residue to adhere to the inductor, resulting in a degradation of the inductor's electrical properties, especially insulation resistance.
- Inappropriate cleaning conditions（insufficient or excessive cleaning）may detrimentally affect the performance of the inductors.
- * In the case of ultrasonic cleaning, too much power output can cause excessive vibration of the PC board which may lead to the cracking of the inductor or the soldered portion, or decrease the terminal electrodes' strength. Thus following conditions shall be checked.
  - * Ultrasonic output below 20W
  - * Ultrasonic frequency below 40KHz
  - * Ultrasonic washing period 5 minutes or less

Handling

- Keep the product away from all magnets and magnetic objects.
- Breakaway PC boards (splitting along perforations)

  1. When splitting the PC board after mounting product, care should be taken not to give any stresses of deflection or twisting to the board.
  2. Board separation should not be done manually, but by using the appropriate devices.
- Mechanical considerations

  Please do not give the product any excessive mechanical shocks and power in transportation.
- Pick-up pressure
  Damage and a characteristic can vary with an excessive shock or stress. Please don't push to add any pressure to a winding part.
- Packing- Please avoid accumulation of a packing box as much as possible.

Storage

- To maintain the solderability of terminal electrodes and to keep the packaging material in good condition, care must be taken to control temperature and humidity in the storage area. Humidity should especially be kept as low as possible.
- Recommended conditions

  Ambient temperature Below 40℃
  Humidity Below 70% RH
- The ambient temperature must be kept below 40℃. Even under ideal storage conditions inductor electrode solderability decreases as time passes, so inductors should be used within 6 months from the time of delivery.
- In case of storage over 6 months, solderability shall be checked before actual usage.
- The packaging material should be kept where no chlorine or sulfur exists in the air.
- Under a high temperature and humidity environment, problems such as reduced solderability caused by oxidation of terminal electrodes and deterioration of taping/ packaging materials may take place.

SAFETY REMINDERS

● All products listed in this specification are developed, designed and intended for use in general electronics equipment. The products are not designed or Warranted to meet the requirements of the applications listed below, whose performance and/or quality require especially high reliability, or whose failure, malfunction or trouble might directly cause damage to society, person, or property. Please understand that we are not responsible for any damage or liability caused by use of the products in any of the applications below. Please contact us for more details if you intend to use our products in the following applications.

☆ 1.Aerospace/aviation equipment

☆ 2.Transportation equipment (cars, electric trains, ships, etc.)

☆ 3.Medical equipment

☆ 4.Power-generation control equipment

☆ 5.Atomic energy-related equipment

☆ 6.Seabed equipment

☆ 7.Transportation control equipment

☆ 8.Public information-processing equipment

☆ 9.Military equipment

☆ 10.Electric heating apparatus, burning equipment

☆ 11.Disaster prevention/crime prevention equipment

☆ 12.Safety equipment

☆ 13.Other applications that are not considered general-purpose applications

● When designing your equipment even for general-purpose applications, you are kindly requested to take into consideration securing protection circuit/device or providing backup circuits in your equipment.