



# Isolator

SMD

## CU4S0506 Series

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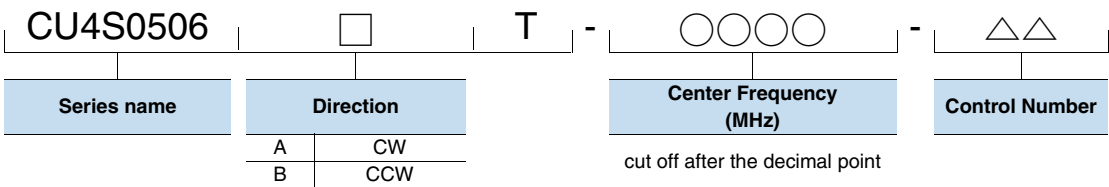
**5x5mm\***

\* Dimensions Code JIS

Isolator  
SMD

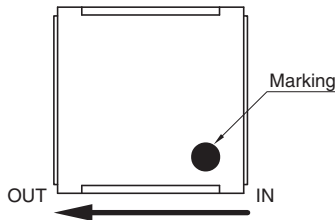
Overview of CU4S0506 Series

PART NUMBER CONSTRUCTION

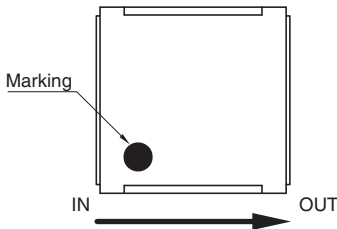


DIRECTION OF CIRCULATION

ClockWise(CW): A



CounterClockWise(CCW): B



TEMPERATURE RANGE

| Operating temperature<br>(°C) | Storage temperature<br>(°C) |
|-------------------------------|-----------------------------|
| -40 to +105                   | -40 to +105                 |

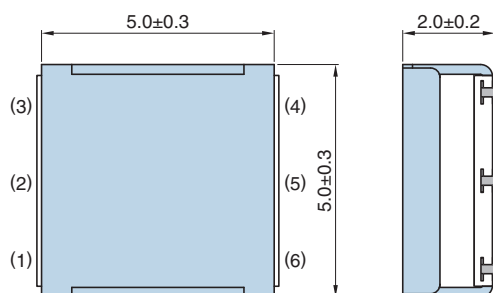
○ RoHS Directive Compliant Product: See the following for more details related to RoHS Directive compliant products. <http://product.tdk.com/en/environment/rohs/>

- All specifications are subject to change without notice.
- Before using these products, be sure to request the delivery specifications.

# CU4S0506 Series (Under 1GHz)

## SHAPES AND DIMENSIONS

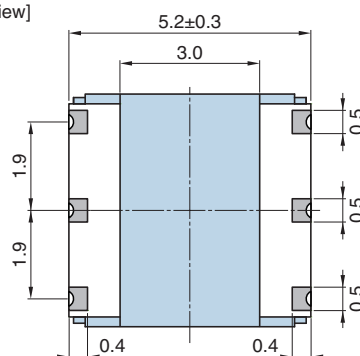
[Top view]



Terminal (Au plating)  
Metal parts other than a terminal.  
(GND electric potential)

Tolerance unless otherwise specified:  $\pm 0.2$   
Coplanarity : 0.1max.

[Bottom view]



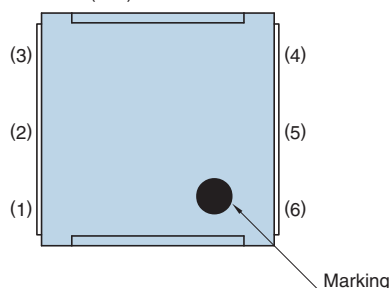
### Terminal functions

|          |           |                   |
|----------|-----------|-------------------|
| 1        | OUT       | IN                |
| 2        | GROUND    | GROUND            |
| 3        | GROUND    | GROUND            |
| 4        | GROUND    | GROUND            |
| 5        | GROUND    | GROUND            |
| 6        | IN        | OUT               |
| Rotation | Clockwise | Counter Clockwise |

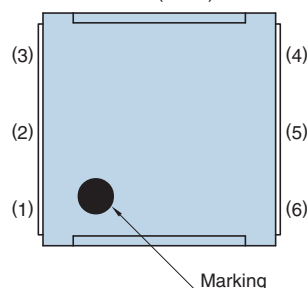
Dimensions in mm

[Marking]

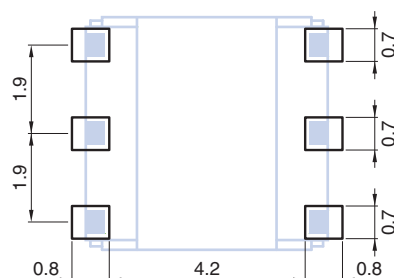
ClockWise(CW): A



CounterClockWise(CCW): B

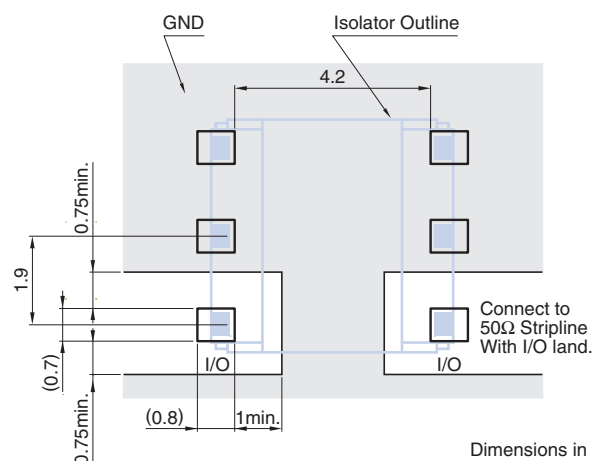


## RECOMMENDED LAND PATTERN



Dimensions in mm

## RECOMMENDED PC BOARD PATTERN



Dimensions in mm

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## CU4S0506 Series (Under 1GHz)

### ELECTRICAL CHARACTERISTICS

| Frequency range<br>(MHz) | Center frequency<br>(MHz) | Isolation<br>(dB)<br>min. | Insertion loss<br>(dB)<br>max. | V.S.W.R.<br>Zo=50Ω<br>max. | Handling power<br>(W)<br>max. | Reflection power<br>(W) <sup>*4</sup><br>max. | Part Number       |                   |
|--------------------------|---------------------------|---------------------------|--------------------------------|----------------------------|-------------------------------|-----------------------------------------------|-------------------|-------------------|
|                          |                           |                           |                                |                            |                               |                                               | ClockWise         | CounterClockWise  |
| 703 to 748               | 725.5                     | 9                         | 1.30                           | 1.8                        | 5                             | 2                                             | CU4S0506AT-725-00 | CU4S0506BT-725-00 |
| 758 to 803               | 780.5                     | 9                         | 1.30                           | 1.8                        | 5                             | 2                                             | CU4S0506AT-780-00 | CU4S0506BT-780-00 |
| 859 to 894               | 876.5                     | 11                        | 1.00                           | 1.8                        | 5                             | 2                                             | CU4S0506AT-876-00 | CU4S0506BT-876-00 |
| 869 to 894               | 881.5                     | 12                        | 0.85                           | 1.7                        | 5                             | 2                                             | CU4S0506AT-881-00 | CU4S0506BT-881-00 |
| 880 to 915               | 897.5                     | 11                        | 0.95                           | 1.8                        | 5                             | 2                                             | CU4S0506AT-897-00 | CU4S0506BT-897-00 |
| 925 to 960               | 942.5                     | 11                        | 0.95                           | 1.8                        | 5                             | 2                                             | CU4S0506AT-942-00 | CU4S0506BT-942-00 |

Characteristic Impedance (Ω) : 50(Nominal)

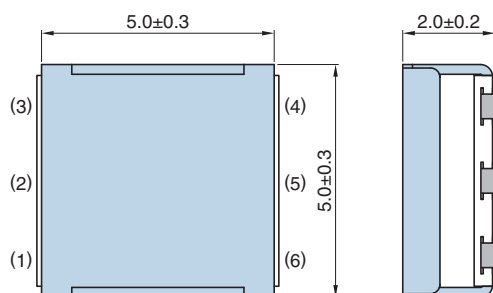
<sup>\*4</sup> To be kept below +105deg.C at the bottom surface

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# CU4S0506 Series (Over 1GHz)

## SHAPES AND DIMENSIONS

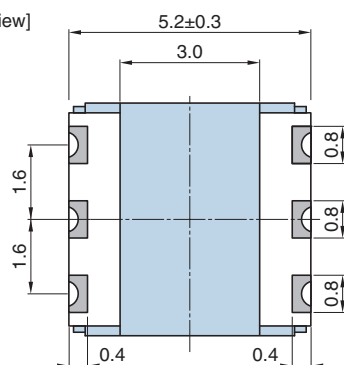
[Top view]



Terminal (Au plating)  
 Metal parts other than a terminal.  
 (GND electric potential)

Tolerance unless otherwise specified:  $\pm 0.2$   
 Coplanarity : 0.1max.

[Bottom view]



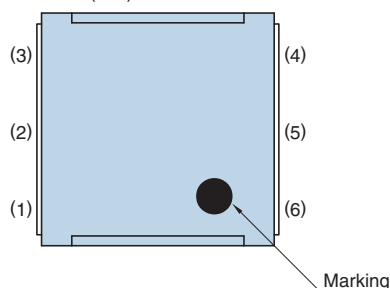
### Terminal functions

|          |           |                   |
|----------|-----------|-------------------|
| 1        | OUT       | IN                |
| 2        | GROUND    | GROUND            |
| 3        | GROUND    | GROUND            |
| 4        | GROUND    | GROUND            |
| 5        | GROUND    | GROUND            |
| 6        | IN        | OUT               |
| Rotation | Clockwise | Counter Clockwise |

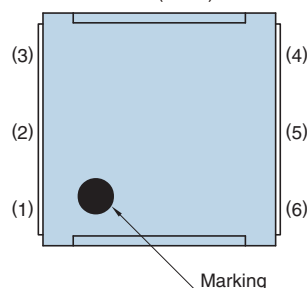
Dimensions in mm

[Marking]

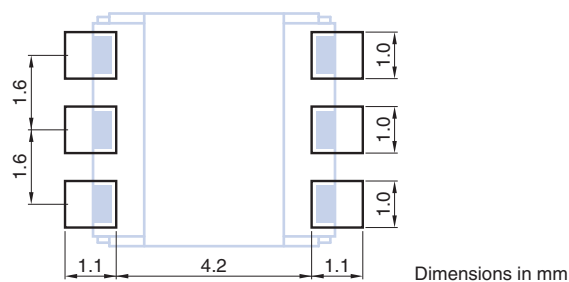
ClockWise(CW): A



CounterClockWise(CCW): B

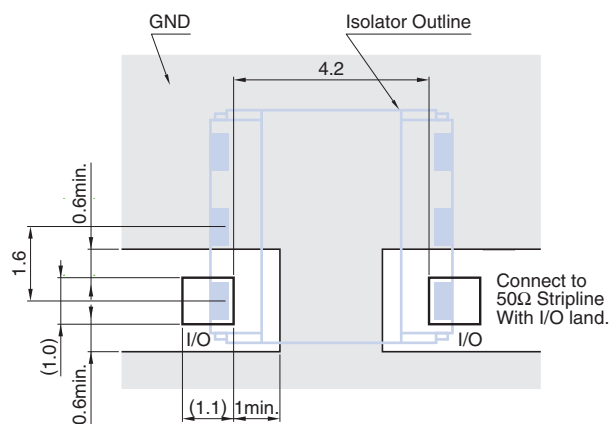


## RECOMMENDED LAND PATTERN



Dimensions in mm

## RECOMMENDED PC BOARD PATTERN



Dimensions in mm

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# CU4S0506 Series (Over 1GHz)

## ELECTRICAL CHARACTERISTICS

| Frequency range<br>(MHz) | Center frequency<br>(MHz) | Isolation<br>(dB)<br>min. | Insertion loss<br>(dB)<br>max. | V.S.W.R.<br>Zo=50Ω<br>max. | Handling power<br>(W)<br>max. | Reflection power<br>(W) <sup>*4</sup><br>max. | Part Number        |                    |
|--------------------------|---------------------------|---------------------------|--------------------------------|----------------------------|-------------------------------|-----------------------------------------------|--------------------|--------------------|
|                          |                           |                           |                                |                            |                               |                                               | ClockWise          | CounterClockWise   |
| 1805 to 1880             | 1842.5                    | 14                        | 0.70                           | 1.5                        | 5                             | 2                                             | CU4S0506AT-1842-00 | CU4S0506BT-1842-00 |
| 1880 to 2025             | 1952.5                    | 12                        | 1.00                           | 1.7                        | 5                             | 2                                             | CU4S0506AT-1952-00 | CU4S0506BT-1952-00 |
| 1930 to 1995             | 1962.5                    | 15                        | 0.70                           | 1.5                        | 5                             | 2                                             | CU4S0506AT-1962-00 | CU4S0506BT-1962-00 |
| 2110 to 2200             | 2155                      | 14                        | 0.80                           | 1.5                        | 5                             | 2                                             | CU4S0506AT-2155-00 | CU4S0506BT-2155-00 |
| 2300 to 2400             | 2350                      | 14                        | 0.80                           | 1.5                        | 5                             | 2                                             | CU4S0506AT-2350-00 | CU4S0506BT-2350-00 |
| 2496 to 2690             | 2593                      | 12                        | 0.90                           | 1.7                        | 5                             | 2                                             | CU4S0506AT-2593-00 | CU4S0506BT-2593-00 |
| 2570 to 2620             | 2595                      | 15                        | 0.70                           | 1.5                        | 5                             | 2                                             | CU4S0506AT-2595-00 | CU4S0506BT-2595-00 |
| 2620 to 2690             | 2655                      | 15                        | 0.75                           | 1.6                        | 5                             | 2                                             | CU4S0506AT-2655-00 | CU4S0506BT-2655-00 |

Characteristic Impedance (Ω) : 50(Nominal)

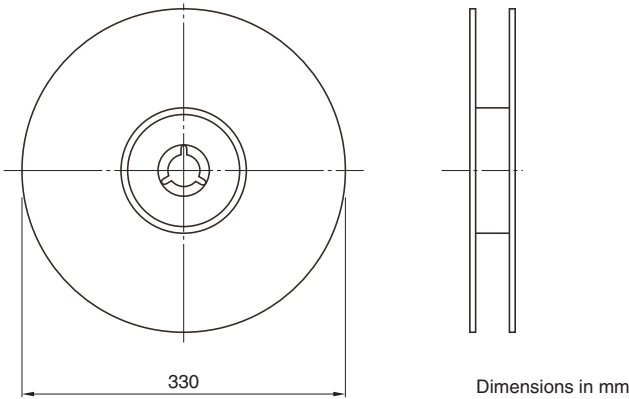
<sup>\*4</sup> To be kept below +105deg.C at the bottom surface

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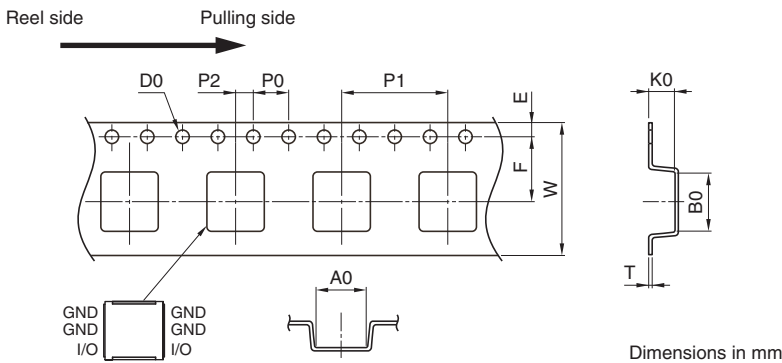
CU4S0506 Series

PACKAGING STYLE

REEL DIMENSIONS



TAPE DIMENSIONS



| A0      | B0      | D0         | E        | F       | P0      | P1       | P2      | W             | K0      | T        |
|---------|---------|------------|----------|---------|---------|----------|---------|---------------|---------|----------|
| 5.6±0.1 | 5.6±0.1 | 1.5+0.1/-0 | 1.75±0.1 | 7.5±0.1 | 4.0±0.1 | 12.0±0.1 | 2.0±0.1 | 16.0+0.3/-0.1 | 2.6±0.1 | 0.3±0.05 |

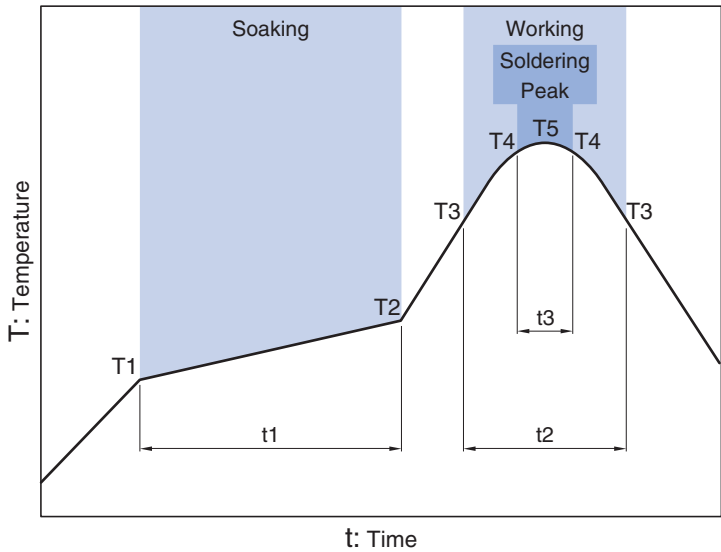
PACKAGE QUANTITY

| Standard package quantity<br>(pieces/reel) |
|--------------------------------------------|
| 1000                                       |

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# CU4S0506 Series

## RECOMMENDED REFLOW PROFILE



| Soaking |       |            | Working |           | Soldering Peak |            |            |
|---------|-------|------------|---------|-----------|----------------|------------|------------|
| Temp.   | Time  |            | Temp.   | Time      | Temp.          | Time       | Temp.      |
| T1      | T2    | t1         | T3      | t2        | T4             | t3         | T5         |
| 150°C   | 180°C | 60 to 120s | 230°C   | 30 to 60s | 250°C          | within 10s | 260°C max. |

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## 使用注意事项

在使用本产品前，请务必随附采购规格书。

## 安全注意事项

使用本产品时，请注意安全事项。

### ⚠ 注意

建议磁铁与制品保持50cm以上距离，有可能影响制品静特性；若磁铁必须靠近制品时，禁止在制品上加5mT以上磁力。  
建议磁性材料与制品保持10mm以上距离，有可能影响制品静特性（若在10mm以内静特性会产生可逆变化）。  
制品本身会产生0.3T以下的漏磁现象。

本产品目录中记载的产品是指在通用标准用途意义上使用于一般电子设备（AV设备，通信设备，家电产品，娱乐设备，计算机设备，个人设备，办公设备，计测设备，工业机器人），并且该一般电子设备要在通常的操作和使用方法下使用。

对于需要高度安全性和可靠性的，或者设备的故障，误动作，运转不良可能会给人的生命，身体及财产等造成损害，以及有可能产生莫大社会影响的以下用途（以下称‘特定用途’）中的适用性，性能发挥，品质，本公司不予保证。

产品被在本产品目录的范围、条件之外，或者在特定用途中使用，本公司对它造成的损害和信赖性不承担任何责任。

- |                         |                    |
|-------------------------|--------------------|
| (1) 航天航空设备              | (8) 公共信息处理设备       |
| (2) 交通运输设备（汽车，电动火车，船舶等） | (9) 军事设备           |
| (3) 医疗设备                | (10) 电加热设备、燃烧设备    |
| (4) 发电控制设备              | (11) 防灾 / 预防犯罪设备   |
| (5) 原子能源相关设备            | (12) 安全设备          |
| (6) 海底设备                | (13) 其他不被视为常规用途的用途 |
| (7) 交通控制设备              |                    |

为了能够更安全地使用产品，对使用本产品目录中所记载产品的设备进行设计时，请确保符合该设备的使用用途及状态的保护回路和装置，并设置备用回路等。