

March 2020

Isolator SMD

# CU4S0506 Series

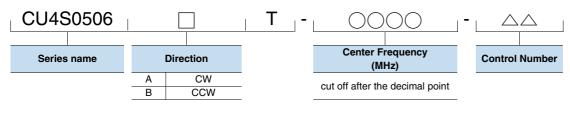
#### 5x5mm∗

\* Dimensions Code JIS

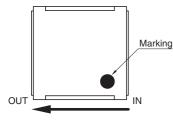
### Isolator SMD

## **Overview of CU4S0506 Series**

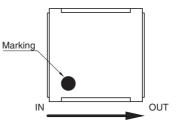
#### PART NUMBER CONSTRUCTION



### DIRECTION OF CIRCULATION ClockWise(CW): A



#### CounterClockWise(CCW): B



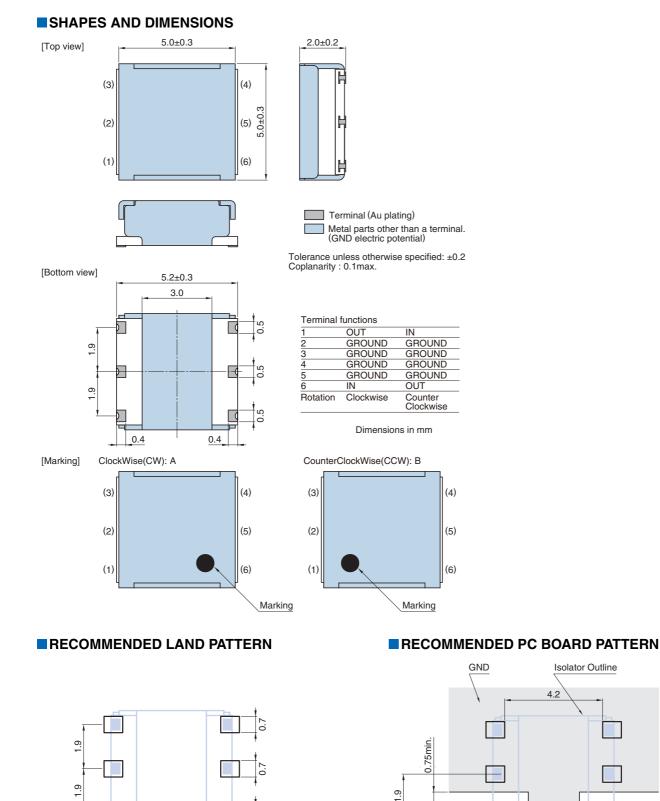
#### **TEMPERATURE RANGE**

Operating temperature	Storage temperature
(° <b>C</b> )	(°C)
-40 to +105	-40 to +105

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

<sup>•</sup> Before using these products, be sure to request the delivery specifications.

### CU4S0506 Series (Under 1GHz)



• All specifications are subject to change without notice.

4.2

0.8

• Before using these products, be sure to request the delivery specifications.

0

Dimensions in mm

0.8

Connect to

 $50\Omega$  Stripline With I/O land.

Dimensions in mm

I/O

I/O

1min.

(0.8)

(0.7)

0.75min.

### CU4S0506 Series (Under 1GHz)

#### ELECTRICAL CHARACTERISTICS

Frequency range	Center frequency	Isolation	Insertion loss	V.S.W.R. Zo=50Ω	Handling power	Reflection power	Part Number	
(MHz)	(MHz)	(dB)	(dB)		(W)	(W) *4		
		min.	max.	max.	max.	max.	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 ( $\Omega$ ) : 50(Nominal)

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

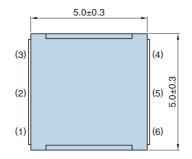
• All specifications are subject to change without notice.

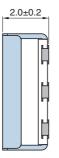
<sup>•</sup> Before using these products, be sure to request the delivery specifications.

### CU4S0506 Series (Over 1GHz)

#### SHAPES AND DIMENSIONS

[Top view]





Coplanarity : 0.1max.



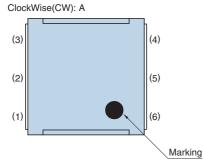
Terminal (Au plating) Metal parts other than a terminal. (GND electric potential)

Tolerance unless otherwise specified: ±0.2

[Bottom view] 5.2±0.3 3.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

0.4

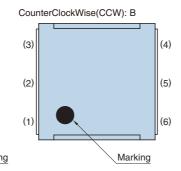
[Marking]



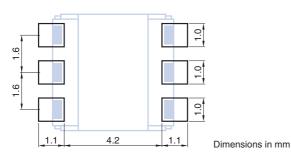
0.4

Terminal functions OUT IN 1 GROUND GROUND 3 GROUND GROUND 4 GROUND GROUND 5 GROUND GROUND 6 IN OUT Rotation Clockwise Counter Clockwise

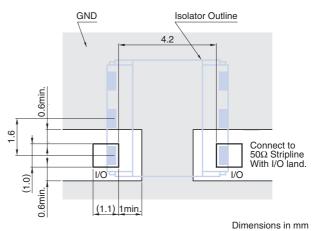
Dimensions in mm



#### RECOMMENDED LAND PATTERN



#### RECOMMENDED PC BOARD PATTERN



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#### **RF** Components

### CU4S0506 Series (Over 1GHz)

#### **ELECTRICAL CHARACTERISTICS**

Frequ range	-	Center frequency	Isolation	Insertion loss	V.S.W.R. <b>Zo=50</b> Ω	Handling power	Reflection power	Part Number	
(MHz)		(MHz)	(dB)	(dB)		(W)	(W) *4		
			min.	max.	max.	max.	max.	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 ( $\Omega$ ) : 50(Nominal)

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

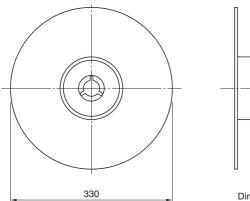
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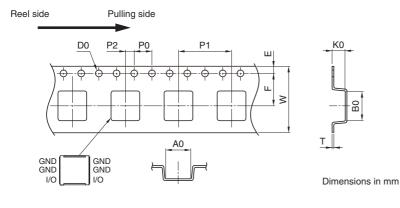
#### PACKAGING STYLE

**REEL DIMENSIONS** 



Dimensions in mm

#### **TAPE DIMENSIONS**



A0	B0	D0	E	F	P0	P1	P2	W	K0	Т
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

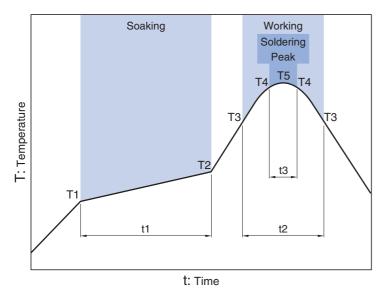
#### **PACKAGE QUANTITY**

Standard package quantity					
(pieces/reel)					
1000					

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### CU4S0506 Series

#### RECOMMENDED REFLOW PROFILE



Soaking Working			Soldering	Soldering Peak			
Temp.		Time	Temp.	Time	Temp.	Time	Temp.
T1	T2	t1	Т3	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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### **REMINDERS FOR USING THESE PRODUCTS**

Before using these products, be sure to request the delivery specifications.

### **SAFETY REMINDERS**

Please pay sufficient attention to the warnings for safe designing when using these products.

### **⚠ REMINDERS**

Please do not bring the magnet close to the product (Recommending is separating to 50cm or more). An electric characteristic might be deteriorated.

The magnetic field of 5mT or more must not go into the product when you make the magnet approach.

Moreover, please do not touch a soft magnetic material such as iron (Recommending is separating to 10mm or more). An electric characteristic might be deteriorated. An electric characteristic changes when bringing it close within 10mm(reversible change).

There is a leakage of some magnetism (0.3T or less) from the product.

The products listed on this catalog are intended for use in general electronic equipment (AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equipment, industrial robots) under a normal operation and use condition.

The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious 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 or for any other use exceeding the range or conditions set forth in this catalog.

- (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 using this product in general-purpose applications, you are kindly requested to take into consideration securing protection circuit/ equipment or providing backup circuits, etc., to ensure higher safety.

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