

October 2015

Isolator SMD

CU1S2252 Series

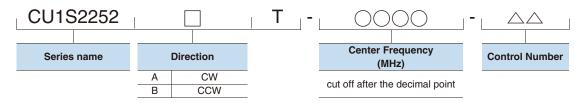


Isolator SMD

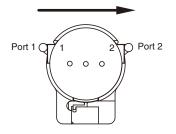
Product compatible with RoHS directive

Overview of CU1S2252 Series

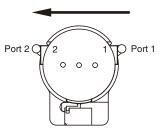
PART NUMBER CONSTRUCTION



□DIRECTION OF CIRCULATION ClockWise(CW): A



CounterClockWise(CCW): B



■TEMPERATURE RANGE

| Operating temperature | Storage temperature | | | |
|-----------------------|---------------------|--|--|--|
| (°C) | (°C) | | | |
| −35 to +85 | -40 to +85 | | | |

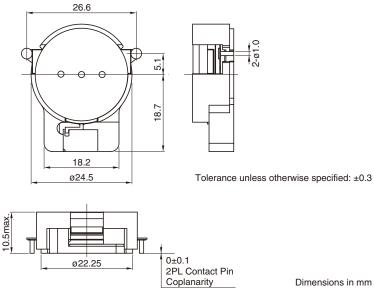
RoHS Directive Compliant Product: See the following for more details related to RoHS Directive compliant products. http://product.tdk.com/en/environment/rohs/

[•] All specifications are subject to change without notice.

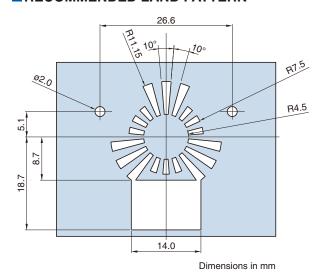
[•] Before using these products, be sure to request the delivery specifications.



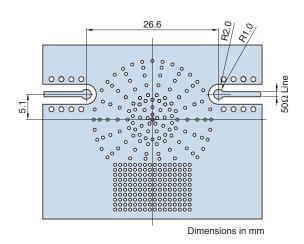
SHAPES AND DIMENSIONS



■ RECOMMENDED LAND PATTERN



■ RECOMMENDED PC BOARD PATTERN



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ELECTRICAL CHARACTERISTICS

| Frequency | Center | Isolation | Insertion | | Handling | Reflection | IMD 50Wx2tone | Part Number | |
|------------------|-----------|-----------|-----------|----------------|----------|------------|------------------|--------------------|--------------------|
| range | frequency | | loss | Zo=50 Ω | • | power | | | |
| (MHz) | (MHz) | (dB) | (dB) | | (W) | (W) * | (dBc) | | |
| | | min. | max. | max. | max. | max. | max. | ClockWise | CounterClockWise |
| 716 to 728 | 722 | 21 | 0.25 | 1.20 | 110 | 100 | -7 0 | CU1S2252AT-722-00 | CU1S2252BT-722-00 |
| 729 to 746 | 737.5 | 21 | 0.25 | 1.20 | 110 | 100 | -7 0 | CU1S2252AT-737-00 | CU1S2252BT-737-00 |
| 734 to 746 | 740 | 21 | 0.25 | 1.20 | 110 | 100 | -70 | CU1S2252AT-740-00 | CU1S2252BT-740-00 |
| 746 to 756 | 751 | 21 | 0.25 | 1.20 | 110 | 100 | -70 | CU1S2252AT-751-00 | CU1S2252BT-751-00 |
| 758 to 768 | 763 | 21 | 0.25 | 1.20 | 110 | 100 | -70 | CU1S2252AT-763-00 | CU1S2252BT-763-00 |
| 758 to 803 | 780.5 | 21 | 0.25 | 1.20 | 110 | 100 | -70 | CU1S2252AT-780-00 | CU1S2252BT-780-00 |
| 773 to 803 | 788 | 21 | 0.25 | 1.20 | 110 | 100 | -70 | CU1S2252AT-788-00 | CU1S2252BT-788-00 |
| 791 to 821 | 806 | 21 | 0.25 | 1.20 | 110 | 100 | -70 | CU1S2252AT-806-00 | CU1S2252BT-806-00 |
| 852 to 869 | 860.5 | 21 | 0.25 | 1.20 | 110 | 100 | -70 | CU1S2252AT-860-00 | CU1S2252BT-860-00 |
| 860 to 875 | 867.5 | 21 | 0.25 | 1.20 | 110 | 100 | -70 | CU1S2252AT-867-00 | CU1S2252BT-867-00 |
| 860 to 890 | 875 | 21 | 0.25 | 1.20 | 110 | 100 | -70 | CU1S2252AT-875-00 | CU1S2252BT-875-00 |
| 859 to 894 | 876.5 | 21 | 0.25 | 1.20 | 110 | 100 | -70 | CU1S2252AT-876-00 | CU1S2252BT-876-00 |
| 869 to 894 | 881.5 | 21 | 0.25 | 1.20 | 110 | 100 | -70 | CU1S2252AT-881-00 | CU1S2252BT-881-00 |
| 875 to 890 | 882.5 | 21 | 0.25 | 1.20 | 110 | 100 | -70 | CU1S2252AT-882-00 | CU1S2252BT-882-00 |
| 925 to 960 | 942.5 | 21 | 0.25 | 1.20 | 110 | 100 | -70 | CU1S2252AT-942-00 | CU1S2252BT-942-00 |
| 945 to 960 | 952.5 | 21 | 0.25 | 1.20 | 110 | 100 | -70 | CU1S2252AT-952-00 | CU1S2252BT-952-00 |
| 1475.9 to 1510.9 | 1493.4 | 21 | 0.25 | 1.20 | 110 | 100 | -70 | CU1S2252AT-1493-00 | CU1S2252BT-1493-00 |
| 1525 to 1559 | 1542 | 21 | 0.25 | 1.20 | 110 | 100 | -70 | CU1S2252AT-1542-00 | CU1S2252BT-1542-00 |
| 1805 to 1880 | 1842.5 | 21 | 0.25 | 1.20 | 110 | 100 | -70 | CU1S2252AT-1842-00 | CU1S2252BT-1842-00 |
| 1844.9 to 1879.9 | 1862.4 | 21 | 0.25 | 1.20 | 110 | 100 | -70 | CU1S2252AT-1862-00 | CU1S2252BT-1862-00 |
| 1880 to 1920 | 1900 | 21 | 0.25 | 1.20 | 110 | 100 | -70 | CU1S2252AT-1900-00 | CU1S2252BT-1900-00 |
| 1930 to 1990 | 1960 | 21 | 0.25 | 1.20 | 110 | 100 | -70 | CU1S2252AT-1960-00 | CU1S2252BT-1960-00 |
| 1930 to 1995 | 1962.5 | 21 | 0.25 | 1.20 | 110 | 100 | -70 | CU1S2252AT-1962-00 | CU1S2252BT-1962-00 |
| 2010 to 2025 | 2017.5 | 21 | 0.25 | 1.20 | 110 | 100 | -70 | CU1S2252AT-2017-00 | CU1S2252BT-2017-00 |
| 2110 to 2170 | 2140 | 21 | 0.25 | 1.20 | 110 | 100 | -70 | CU1S2252AT-2140-00 | CU1S2252BT-2140-00 |

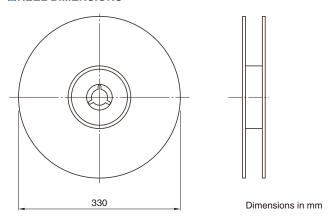
Characteristic Impedance (Ω) : 50(Nominal)

^{*} To be kept below +85deg.C at the bottom surface

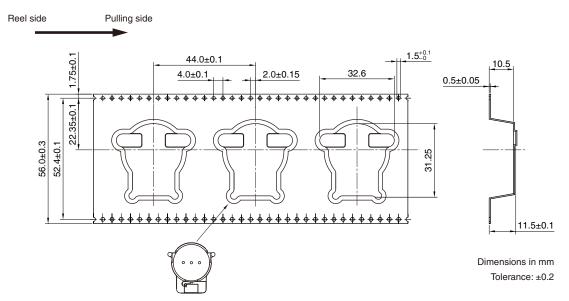
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■PACKAGING STYLE

□REEL DIMENSIONS



TAPE DIMENSIONS



■ PACKAGE QUANTITY

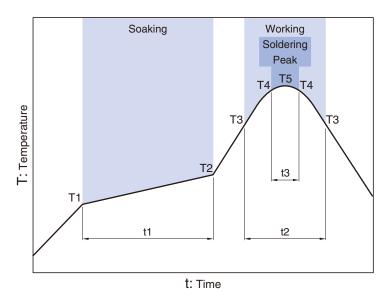
| Standard package quantity | | | | |
|---------------------------|--|--|--|--|
| (pieces/reel) | | | | |
| 100 | | | | |

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■ RECOMMENDED REFLOW PROFILE



| Soaking Working | | | | 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

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

within 10mm(reversible change).

- (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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