

October 2015

Circulator SMD

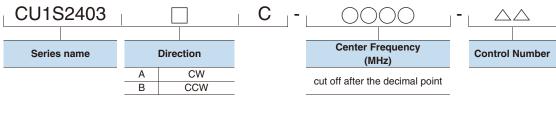
CU1S2403 Series

⊘TDK

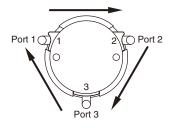
Circulator SMD

Overview of CU1S2403 Series

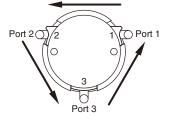
PART NUMBER CONSTRUCTION



DIRECTION OF CIRCULATION ClockWise(CW): A



CounterClockWise(CCW): B



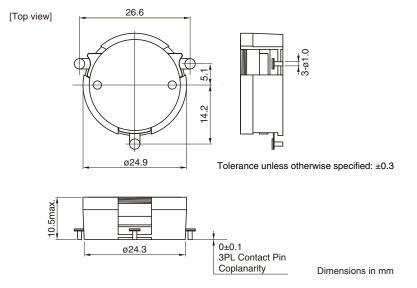
TEMPERATURE RANGE

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

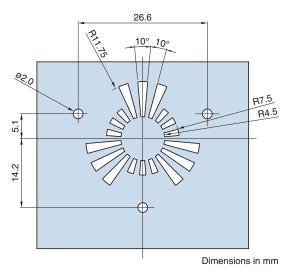
O RoHS Directive Compliant Product: See the following for more details related to RoHS Directive compliant products. http://product.tdk.com/en/environment/rohs/

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

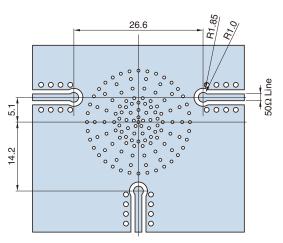
SHAPES AND DIMENSIONS



RECOMMENDED LAND PATTERN



RECOMMENDED PC BOARD PATTERN



Dimensions in mm

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ELECTRICAL CHARACTERISTICS

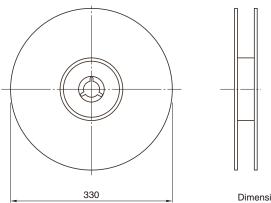
Frequeno range	су	Center frequency	Isolation	Insertion loss	V.S.W.R. Zo=50 Ω	Handling power	IMD 20Wx2tone	Part Number	
(MHz)		(MHz)	(dB)	(dB)		(W)	(dBc)		
()		()	min.	max.	max.	max.	max.	ClockWise	CounterClockWise
716 to	728	722	20	0.25	1.20	100	-66	CU1S2403AC-722-00	CU1S2403BC-722-00
729 to	o 746	737.5	20	0.25	1.20	100	-66	CU1S2403AC-737-00	CU1S2403BC-737-00
734 to	5 746	740	20	0.25	1.20	100	-66	CU1S2403AC-740-00	CU1S2403BC-740-00
746 to	756	751	20	0.25	1.20	100	-66	CU1S2403AC-751-00	CU1S2403BC-751-00
758 to	768	763	20	0.25	1.20	100	-66	CU1S2403AC-763-00	CU1S2403BC-763-00
758 to	b 803	780.5	18	0.30	1.25	100	-62	CU1S2403AC-780-00	CU1S2403BC-780-00
773 to	b 803	788	20	0.25	1.20	100	-66	CU1S2403AC-788-00	CU1S2403BC-788-00
791 to	o 821	806	20	0.25	1.20	100	-70	CU1S2403AC-806-00	CU1S2403BC-806-00
852 to	869	860.5	20	0.25	1.20	100	-70	CU1S2403AC-860-00	CU1S2403BC-860-00
860 to	875	867.5	20	0.25	1.20	100	-70	CU1S2403AC-867-00	CU1S2403BC-867-00
860 to	o 890	875	20	0.25	1.20	100	-70	CU1S2403AC-875-00	CU1S2403BC-875-00
859 to	o 894	876.5	20	0.25	1.20	100	-70	CU1S2403AC-876-00	CU1S2403BC-876-00
869 to	o 894	881.5	20	0.25	1.20	100	-70	CU1S2403AC-881-00	CU1S2403BC-881-00
875 to	o 890	882.5	20	0.25	1.20	100	-70	CU1S2403AC-882-00	CU1S2403BC-882-00
925 to	960	942.5	20	0.25	1.20	100	-70	CU1S2403AC-942-00	CU1S2403BC-942-00
945 to	960	952.5	20	0.25	1.20	100	-70	CU1S2403AC-952-00	CU1S2403BC-952-00
1475.9 to	5 1510.9	1493.4	20	0.25	1.20	100	-70	CU1S2403AC-1493-00	CU1S2403BC-1493-00
1525 to	5 1559	1542	20	0.25	1.20	100	-70	CU1S2403AC-1542-00	CU1S2403BC-1542-00
1805 to	1880	1842.5	20	0.25	1.20	100	-70	CU1S2403AC-1842-00	CU1S2403BC-1842-00
1844.9 to	1879.9	1862.4	20	0.25	1.20	100	-70	CU1S2403AC-1862-00	CU1S2403BC-1862-00
1880 to	o 1920	1900	20	0.25	1.20	100	-70	CU1S2403AC-1900-00	CU1S2403BC-1900-00
1930 to	o 1990	1960	20	0.25	1.20	100	-70	CU1S2403AC-1960-00	CU1S2403BC-1960-00
1930 to	o 1995	1962.5	20	0.25	1.20	100	-70	CU1S2403AC-1962-00	CU1S2403BC-1962-00
2010 to	2025	2017.5	20	0.25	1.20	100	-70	CU1S2403AC-2017-00	CU1S2403BC-2017-00
2110 to	2170	2140	20	0.25	1.20	100	-70	CU1S2403AC-2140-00	CU1S2403BC-2140-00

Characteristic Impedance (Ω) : 50(Nominal)

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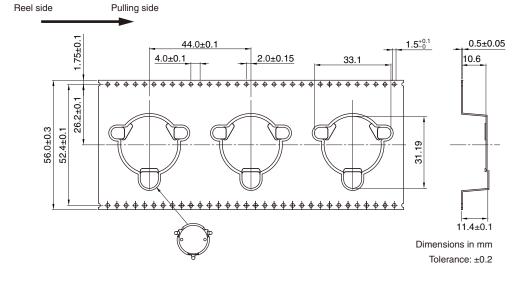
PACKAGING STYLE

REEL DIMENSIONS



Dimensions in mm

TAPE DIMENSIONS



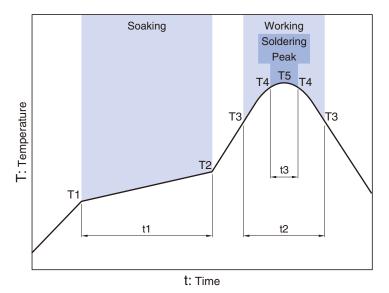
PACKAGE QUANTITY

Standard package quantity						
(pieces/reel)						
100						

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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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