

CIRCULATORS/ISOLATORS

1.6 to 15.4GHz ferrite substrate type

CU series

PRODUCT IDENTIFICATIONS

TYPE CU924□*a□*b□*c□*d□*e

□*a: Direction of circulation. Fill in with a letter A or B.

A: CW (clock-wise)

B: C+CW (counter clock-wise)

□*b: Bandwidth. Fill in with 1, 2, 3, 5 or 8.

1: Standard bandwidth

2, 3 and 5: Wide bandwidth

8: Octave bandwidth

□*c: Connector type. Fill in with letter N, B, T, 3, L, P, d or D.

N: N-type

B: BNC-type

T: TNC-type

3: SMA-type

L: Stripline-type

P: Pin-type coaxial-guide type

d: ø7/8 inch

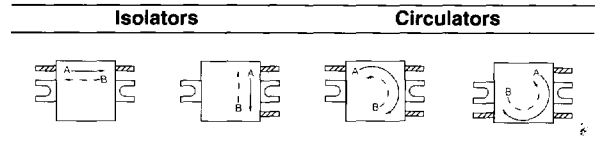
D: ø1-5/8 inch coaxial-guide type

□*d: Frequency range

- Nominal frequency (1.6 to 1.8GHz: 1.7GHz → 17, 2.5 to 2.9GHz: 2.7GHz → 27).

□*e: Indication for circulator or isolator. Fill in with letter C, T, U or S.

C: Circulator T, U, S: Isolator (built-in dummy load)



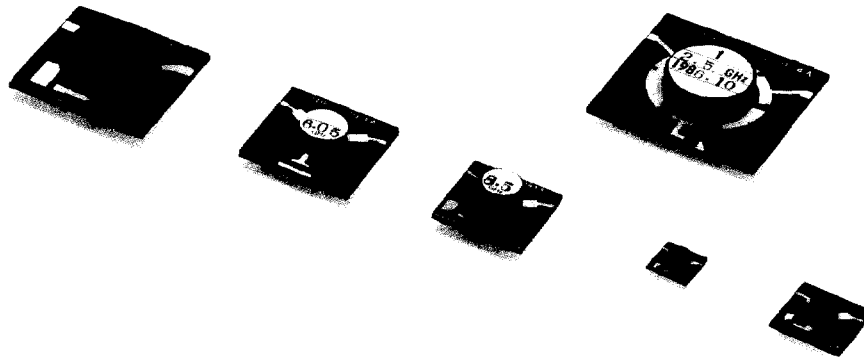
CU SERIES (FERRITE SUBSTATE TYPE)

Board type terminal construction for easy installation in microwave intergrated circuits. Compact and light weight, wide-band and low insertion loss.

ELECTRICAL CHARACTERISTICS

Part No.	Frequency range (GHz)	Isolation (dB) min.	Insertion loss (dB) max.	VSWR $Z_0=50\Omega$ max.	Dimensions (mm)						Fig.	
					A	B	C max.	D max.	E	F		
CU924□*a3*bL*c-17*d□*e	1.6 to 1.8											
CU924□3L-18□	1.7 to 1.9											
CU924□3L-19□	1.8 to 2											
CU924□3L-20□	1.9 to 2.1	20	0.5	1.2	30	1	8	20	8	15	1	
CU924□3L-21□	2 to 2.2											
CU924□3L-22□	2.1 to 2.3											
CU924□3L-23□	2.2 to 2.4											
CU934□3L-25□	2.3 to 2.7	20	0.5	1.2	25	1	7	15	6	12.5	1	
CU934□3L-27□	2.5 to 2.9											

- Temperature range: -10 to +50°C
- Please affix "S", "T" or "U" to the Part No., when ordering as isolators.
- Product identification: Type □*a□*b□*c□*d□*e.
 - *d for nominal frequency (1.6 to 1.8GHz: 17→1.7GHz/2.5 to 2.9GHz: 27→2.7GHz).
 - *e TDK standard is T. (Example: CU924A3L-17T).



Specifications which provide more details for the proper and safe use of the described product are available upon request.

All specifications are subject to change without notice.

CIRCULATORS/ISOLATORS

1.6 to 15.4GHz ferrite substrate type
CU series

ELECTRICAL CHARACTERISTICS

Part No.	Frequency range (GHz)	Isolation (dB) min.	Insertion loss (dB) max.	VSWR $Z_0=50\Omega$ max.	Dimensions (mm)						Fig.	
					A	B	C max.	D max.	E	F		
CU954□*a3*bL*c-30*d□*e	2.8 to 3.2											
CU954□3L-32□	3 to 3.5	20	0.5	1.2	20	1	8	14	5	9.5	1	
CU954□3L-34□	3.2 to 3.7											
CU964□3L-39□	3.7 to 4.2											
CU964□3L-43□	4 to 4.6	20	0.5	1.2	16	1	7	12	4	7.5	1	
CU964□3L-47□	4.4 to 5											
CU964□3L-50□	4.5 to 5.6											
CU964□3L-60□	5.6 to 6.5											
CU964□3L-67□	6.3 to 7.2	20	0.5	1.2	16	1	7	8	4	7.5	1	
CU964□3L-75□	7.1 to 7.9											
CU964□3L-81□	7.6 to 8.6											
CU984□3L-77□	7.2 to 8.2											
CU984□3L-85□	8 to 9	20	0.5	1.2	8.9	0.64	5.5	4.5	3.1	5	1	
CU984□3L-95□	9 to 10											
CU9104□3L-90□	8.5 to 9.5											
CU9104□3L-95□	9 to 10	20	0.5	1.2	10	0.6	6.5	6	2.5	4.5	1	
CU9104□3L-100□	9.5 to 10.5											
CU9124□3L-105□	10 to 11.1	20	0.5	1.2	10	0.6	6.5	4.5	2.5	4.5	1	
CU9124□3L-115□	11 to 12.1											
CU9126□3L-117□	11 to 12.5											
CU9126□3L-127□	12 to 13.5	18	0.6	1.3	7	0.6	4.5	4.5	1.5	3	1	
CU9126□3L-137□	13 to 14.5											
CU9126□3L-149□	14.5 to 15.4											
With carrier*												
CU925□3L-17C	1.6 to 1.8											
CU925□3L-18C	1.7 to 1.9											
CU925□3L-19C	1.8 to 2											
CU925□3L-20C	1.9 to 2.1	18	0.6	1.3	30	1.5	5	20	8	15	2	
CU925□3L-21C	2 to 2.2											
CU925□3L-22C	2.1 to 2.3											
CU925□3L-23C	2.2 to 2.4											

- Temperature range: -10 to +50°C
- Please affix "S", "T" or "U" to the Part No., when ordering as isolators.
- Product identification: Type: □*a□*b□*c□*d□*e.
 □*d for nominal frequency (2.8 to 3.2GHz: 30→3.0GHz/14.5 to 15.4GHz: 149→14.9GHz).
 □*e TDK standard is T. (Example: CU954A3L-30T).

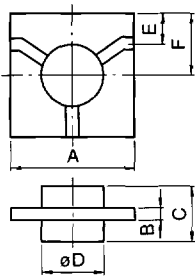


Fig. 1

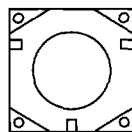
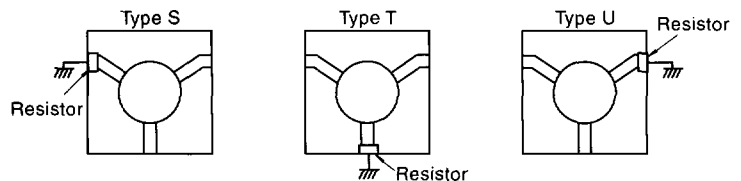


Fig. 2

Isolator (□*e)



CIRCULATORS/ISOLATORS

0.1 to 1.92GHz strip-line and pin-terminal type

CU series

ELECTRICAL CHARACTERISTICS

Part No.	Frequency range (GHz)	Isolation (dB) min.	Insertion loss (dB) max.	VSWR $Z_0=50\Omega$ max.	Dimensions (mm)						Fig.
					A	B	C max.	D max.	E	F	
With carrier*											
CU925□*a3*bL*c-16*dT*e	1.5 to 1.7										
CU925□3L-17T	1.6 to 1.8										
CU925□3L-18T	1.7 to 1.9										
CU925□3L-19T	1.8 to 2	18	0.6	1.3	30	1.5	5	20	8	15	3
CU925□3L-20T	1.9 to 2.1										
CU925□3L-21T	2 to 2.2										
CU925□3L-22T	2.1 to 2.3										
CU925□3L-23T	2.2 to 2.4										
CU965T□3L-60□	5.6 to 6.5										
CU965T□3L-67□	6.3 to 7.2	18	0.6	1.3	16	1.5	7.5	10	4	8	4
CU965T□3L-75□	7.1 to 7.9										
CU965T□3L-81□	7.6 to 8.6										
CU965Y□3L-60□	5.6 to 6.5										
CU965Y□3L-67□	6.3 to 7.2	18	0.6	1.3	16	1.5	7.5	10	4	8	5
CU965Y□3L-75□	7.1 to 7.9										
CU965Y□3L-81□	7.6 to 8.6										
CU9106□3L-95T	9 to 10	18	0.6	1.3	10	1.65	6	5	2.5	4.5	6
CU9129□3L-131T	11.7 to 14.5	18	0.6	1.3	7	1.65	4.5	4.5	1.5	4	

*Flat structure with a magnet on the top surface and a flux carrier yoke as the base.

• Temperature range: -10 to $+50^\circ\text{C}$

• Please affix "S", "T" or "U" to the Part No., when ordering as isolators.

• Product identification: Type □*a□*b□*c□*d□*e

□*d for nominal frequency (1.5 to 1.7GHz: 16→1.6GHz/11.7 to 14.5GHz: 131→13.1GHz).

□*e TDK standard is T. (Example: CU925A3L-16T).

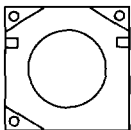


Fig. 3

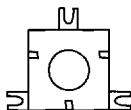


Fig. 4

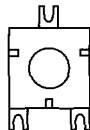


Fig. 5



Fig. 6

CU SERIES (STRIP-LINE AND PIN-TERMINAL TYPE)

Perfect for high power circuits in the VHF/UHF bands, and for FM and TV transmitters.

ELECTRICAL CHARACTERISTICS

Part No.	Frequency range (MHz)	Band width (%) max.	Isolation (dB) min.	Insertion loss (dB) max.	VSWR $Z_0=50\Omega$ max.	Maximum handling power (W)	Capacity of built-in resistor*(W)	Dimensions [Except connector] L×W×T(mm)	Weight (g)	Connector type
CU481□*a5*bL*c-□*d-C*e	100 to 200 200 to 400	20	18	0.7	1.25	30		50×50×25	160	Stripline
CU481□8L-□-C	225 to 400	Full	15	1.5	1.5	20		50×50×25	160	Stripline
CU441□5L-□-C	200 to 400 400 to 800	20 15	18 18	0.7 0.7	1.25 1.25	15 50		40×40×25	120	Stripline
CU442□5L-C	470 to 600 600 to 770	Full	18	0.7	1.25	50		40×40×25	120	Stripline

*Dummy load capability when converted to isolator.

• Product identification: Type □*a□*b□*c□*d□*e



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CIRCULATORS/ISOLATORS

0.1 to 1.92GHz strip-line and pin-terminal type

CU series

ELECTRICAL CHARACTERISTICS

Part No. Circulator	Isolator	Frequency range (MHz)	Band width (%) max.	Isolation (dB) min.	Insertion loss (dB) max.	VSWR $Z_0=50\Omega$ max.	Maximum handling power (W)	Capacity of built-in resistor*(W)	Dimensions [Except connector] L×W×T(mm)	Weight (g)	Connector type
	CU49P□*a3*bL*c-T*e	400 to 950	10	18	0.7	1.25	30	30	30×30×17	45	Stripline
	CU49R□3L-T	400 to 950	10	18	0.7	1.25	70	70	30×30×18	60	Stripline
	CU421□*a3*b L*c-□-□*dT*e	824 to 849 890 to 915 915 to 940 940 to 960 872 to 905 1429 to 1453	Full	18	0.6	1.3	10	5	20×20×10	15	Stripline
	CU421□3L-□-□C	870 to 950	Full	18	0.7	1.3	15	—	20×20×10	15	Stripline
	CU424□1L-□-□T	824 to 849 890 to 915 915 to 940 940 to 960 872 to 905	Full	18	0.7	1.4	10	5	20×20×6	8	Stripline
	CU42K2B1P-□-2T	254.4	±1	18	1.3	1.5	1	1	15×15×7.1	6	Pin
	CU42L□1P-□-2T	273	±2	15	1.5	1.5					
	CU42L□1P-□-2T	380.75	±1	20	0.8	1.4					
	CU42J□1P-□-□T CU41K2□1P-□-□T	824 to 849 890 to 915 915 to 940 940 to 960 872 to 905	Full	18	0.6	1.3	10	1	15×15×7.1	7	Pin
	CU42L□1P-□-2T	824 to 849 890 to 915 915 to 940 940 to 960 872 to 905	Full	18	0.7	1.3	5	1	15×15×7.1	7	Pin
	CU42J3□1P-□-□T CU42L3□1P-□-2T	824 to 849 890 to 915 915 to 940 940 to 960 872 to 905	Full	13	0.7	1.5	5	1	15×15×7.1	5	Pin
	CU41K2□1P-□-□T CU41K3□1P-□-□T	824 to 849 890 to 915 915 to 940 940 to 960 872 to 905	Full	18	0.8	1.4	5	0.7	10×10×6	2.5	Pin
		1429 to 1453	Full	15	0.9	1.5					
		1465 to 1477	Full	18	0.8	1.4					
		1710 to 1785	Full	18	0.9	1.5					
		1895 to 1918	Full	18	0.8	1.4					
	CU41L□1P-□-2T	824 to 849 890 to 915 915 to 940 940 to 960 872 to 905	Full	18	0.8	1.4	3	0.6	10×10×6	2.5	Pin
	CU12R□3L-T	1890 to 1920	Full	18	0.4	1.3	10	4	20×20×6	15	Stripline

*Dummy load capability when converted to isolator.

• Product identification: Type □*a□*b□*c□*d□*e

