

RF Components

Circulator/Isolator

Ferrite Substrate Type

CU Series

FEATURES

- Ferrite substrate type circulator and isolator installed on microwave IC with the same characteristics as a connector type.

PRODUCT IDENTIFICATION

Type name X*aX*bX*c-X*dX*f

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

A: CW (clock-wise)

B: C-CW (counter clock-wise)

X*b: Bandwidth

3: Wide bandwidth

X*c: Connector type

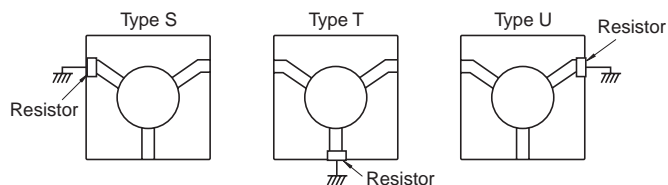
L: Strip-line type

X*d: Center frequency (nominal frequency)

X*f: Input and output terminal position

C: Circulator specification

T, U, S: Isolator specification (Type T: Standard type)



SHAPES/INPUT AND OUTPUT TERMINAL POSITIONS

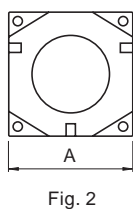
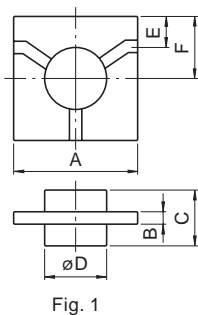


Fig. 2

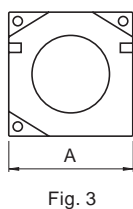


Fig. 3

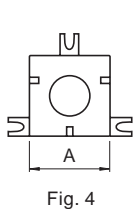


Fig. 4



Fig. 5

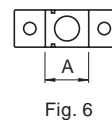
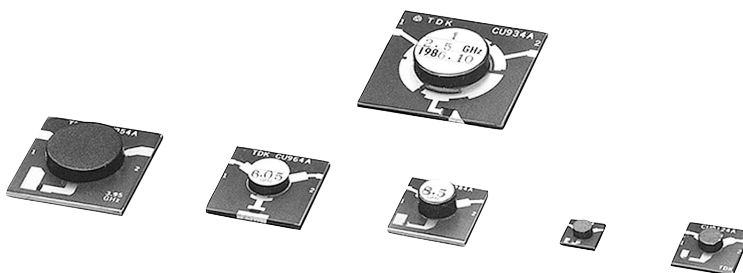


Fig. 6



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TYPICAL ELECTRICAL CHARACTERISTICS

Part No.	Frequency range (GHz)	Isolation (dB) min.	Insertion loss (dB) max.	VSWR max. $Z_0=50\Omega$	Dimensions (mm)						Fig.
					A	B max.	C max.	ϕD	E	F	
CU924X ^a 3 ^b L ^c -17 ^d X ^f	1.6 to 1.8										
CU924X3L-18X	1.7 to 1.9										
CU924X3L-19X	1.8 to 2										
CU924X3L-20X	1.9 to 2.1	20	0.5	1.2	30	1	8	20	8	15	1
CU924X3L-21X	2 to 2.2										
CU924X3L-22X	2.1 to 2.3										
CU924X3L-23X	2.2 to 2.4										
CU934X3L-25X	2.3 to 2.7	20	0.5	1.2	25	1	7	15	6	12.5	1
CU934X3L-27X	2.5 to 2.9										
CU954X3L-30X	2.8 to 3.2										
CU954X3L-32X	3 to 3.5	20	0.5	1.2	20	1	8	14	5	9.5	1
CU954X3L-34X	3.2 to 3.7										
CU964X3L-39X	3.7 to 4.2										
CU964X3L-43X	4 to 4.6	20	0.5	1.2	16	1	7	12	4	7.5	1
CU964X3L-47X	4.4 to 5										
CU964X3L-50X	4.5 to 5.6										
CU964X3L-60X	5.6 to 6.5										
CU964X3L-67X	6.3 to 7.2	20	0.5	1.2	16	1	7	8	4	7.5	1
CU964X3L-75X	7.1 to 7.9										
CU964X3L-81X	7.6 to 8.6										
CU984X3L-77X	7.2 to 8.2										
CU984X3L-85X	8 to 9	20	0.5	1.2	8.9	0.64	5.5	4.5	3.1	5	1
CU984X3L-95X	9 to 10										
CU9104X3L-90X	8.5 to 9.5										
CU9104X3L-95X	9 to 10	20	0.5	1.2	10	0.6	6.5	6	2.5	4.5	1
CU9104X3L-100X	9.5 to 10.5										
CU9124X3L-105X	10 to 11.1	20	0.5	1.2	10	0.6	6.5	4.5	2.5	4.5	1
CU9124X3L-115X	11 to 12.1										
CU9126X3L-117X	11 to 12.5										
CU9126X3L-127X	12 to 13.5	18	0.6	1.3	7	0.6	4.5	4.5	1.5	3	1
CU9126X3L-137X	13 to 14.5										
CU9126X3L-149X	14.5 to 15.4										

• Temperature range: -10 to +50°C

• Product identifications

^ad:17 means nominal frequency (Example: 17→1.7GHz/149→14.9GHz)

^f:X means input and output terminal position. Standard terminal position is T type. (Example: CU924A3L-17T)

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TYPICAL ELECTRICAL CHARACTERISTICS

Part No.	Frequency range (GHz)	Isolation (dB) min.	Insertion loss (dB) max.	VSWR max. $Z_0=50\Omega$	Dimensions (mm)						Fig.
					A	B max.	C max.	ϕD	E	F	
With carrier											
CU925X* ^a 3* ^b L* ^c -17* ^d C* ^f	1.6 to 1.8										
CU925X3L-18C	1.7 to 1.9										
CU925X3L-19C	1.8 to 2										
CU925X3L-20C	1.9 to 2.1	18	0.6	1.3	30	1.5	5	20	8	15	2
CU925X3L-21C	2 to 2.2										
CU925X3L-22C	2.1 to 2.3										
CU925X3L-23C	2.2 to 2.4										
CU925X3L-16T	1.5 to 1.7										
CU925X3L-17T	1.6 to 1.8										
CU925X3L-18T	1.7 to 1.9										
CU925X3L-19T	1.8 to 2										
CU925X3L-20T	1.9 to 2.1	18	0.6	1.3	30	1.5	5	20	8	15	3
CU925X3L-21T	2 to 2.2										
CU925X3L-22T	2.1 to 2.3										
CU925X3L-23T	2.2 to 2.4										
CU965TX3L-60X	5.6 to 6.5										
CU965TX3L-67X	6.3 to 7.2	18	0.6	1.3	16	1.5	7.5	10	4	8	4
CU965TX3L-75X	7.1 to 7.9										
CU965TX3L-81X	7.6 to 8.6										
CU965YX3L-60X	5.6 to 6.5										
CU965YX3L-67X	6.3 to 7.2	18	0.6	1.3	16	1.5	7.5	10	4	8	5
CU965YX3L-75X	7.1 to 7.9										
CU965YX3L-81X	7.6 to 8.6										
CU9106X3L-95T	9 to 10	18	0.6	1.3	10	1.65	6	5	2.5	4.5	
CU9129X3L-131T	11.7 to 14.5	18	0.6	1.3	7	1.65	4.5	4.5	1.5	4	6

• Product identifications

*^d: 17 means nominal frequency (Example: 17→1.7GHz/160→16GHz)

*^f: X means input and output terminal position. Standard terminal position is T type. (Example: CU965YA3L-60T)