

# 5mm SMD CIRCULATOR

RF component

Datasheet Rev.: F  
Date: 2023.06.05

**Customer:**

**Product Name:**

DP-CL0520A2593-H1

DP-CL0520B2593-H1

**Customer P/N:**



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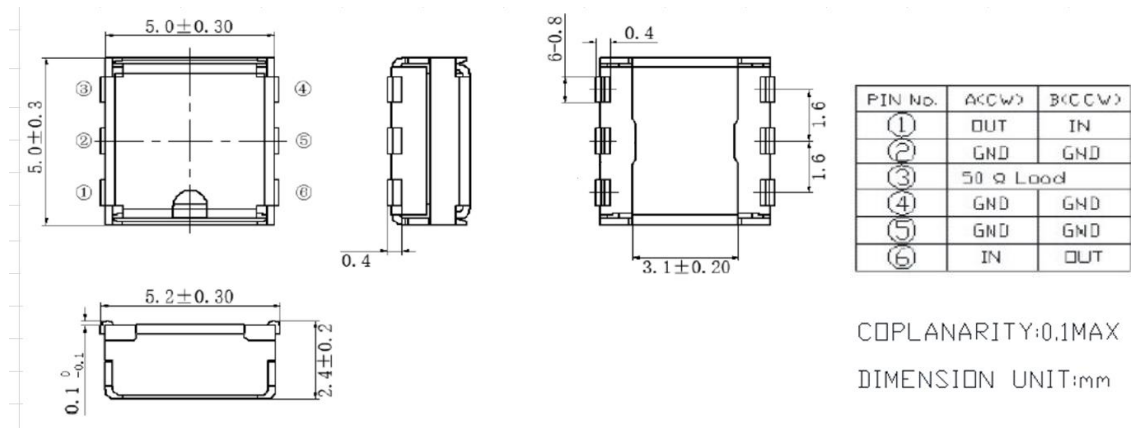
Approved	Checked	Designer
Nick	Wison	ZC.Wu

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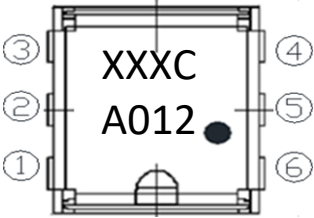
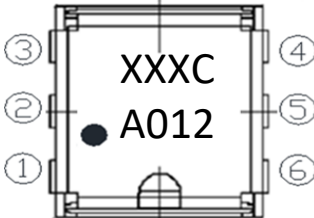
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## MECHANICAL SPECIFICATION



## MARKING

Clockwise DP-CL0520A2593-H1	CounterClockwise DP-CL0520B2593-H1	①/⑥: Out/In Port ③: 50 Ω Load ②④⑤: Ground XXX: Central Frequency 2.5GHz C: Circulator A: Year 01: Week of Year 2: Day of Week ●: Input Port
		

Year Code	
Year	Code
2019	A
2020	B
2021	C
2022	D
2023	E
2024	F
...	...

Week Code	
Week	Code
1	01
2	02
3	03
4	04
5	05
6	06
...	...

Day Code	
Day	Code
Monday	1
Tuesday	2
Wednesday	3
Thursday	4
Friday	5
Saturday	6
Sunday	7

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## TEMPERATURE RANGE

Operating temperature range : -40~+105°C

Storage temperature range:-55~+125°C

## ELECTRICAL CHARACTERISTICS

Parameter	Unit	Frequency (MHz)		DP Spec		
				Min.	Typ.	Max.
Frequency range	MHz	2493		2693		2693
Insertion Loss	dB	-		-		0.90
Isolation	dB	-		-	12	
Return Loss	dB	-		-	12	
Power Handling	W					5
Reflection power	W					2
Characteristic Impedance (ohm)	Ω				50	
Case Style	-				SMD	

## NOTES

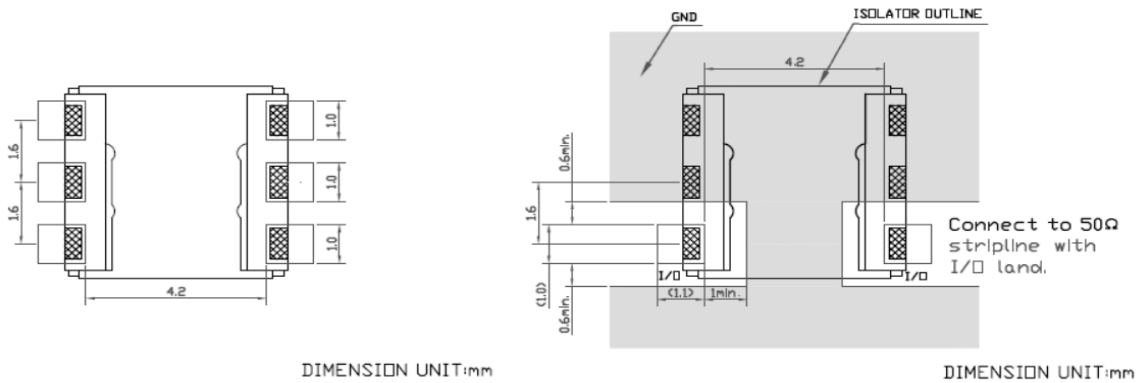
1. Recommend to keep 30mm above when mounted with other magnetic products.
2. RoHS compliance.
3. Circulator's characteristics are guaranteed at conditions listed at above table and it's operating temperature range.

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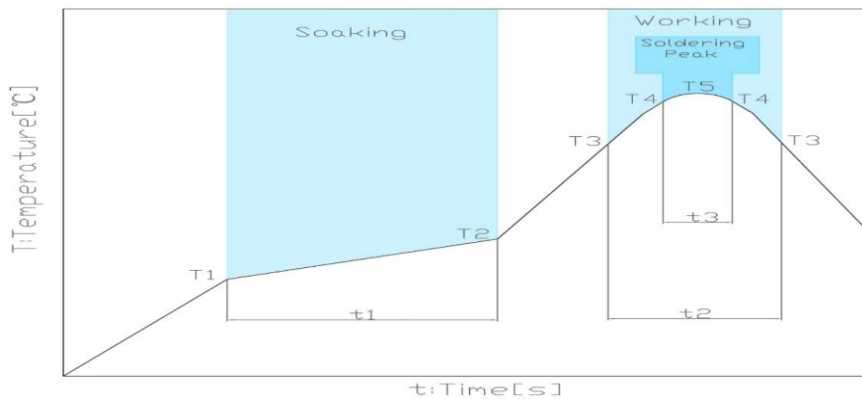
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### RECOMMENDED LAND PATTERN



### RECOMMENDED REFLOW PROFILE



Soaking			Working		Soldering Peak		
Temp.	Time		Temp.	Time	Temp.	Time	Temp.
T1	T2	t1	T3	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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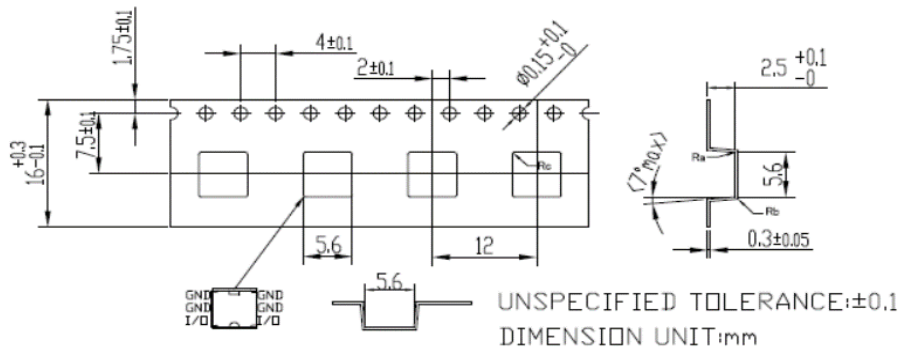
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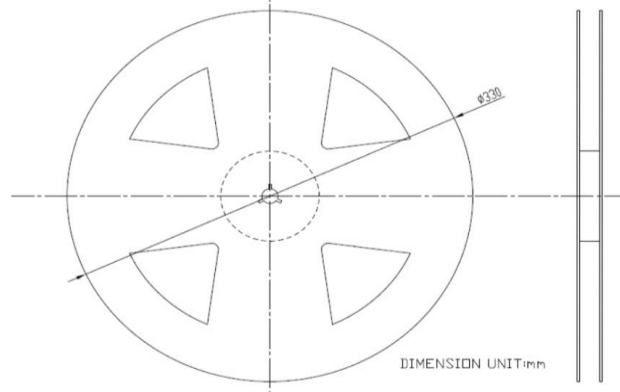
## PACKING STYLE

### REEL DIMENSIONS

Reel side  $\longrightarrow$  Pulling side



### TAPE DIMENSIONS



### PACKAGE QUANTITY

1000 PCS/REEL

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## Revision Records

Rev.	Date	PIC	Change item	Reasons for change
A	2021.06.30	ZC.Wu	New regulations	
B	2022.06.30	ZC.Wu	Dimension and marking	
C	2022.06.30	ZC.Wu	Improving the operating temperature range from -40~+85°C to -40~+105°C	
D	2022.09.15	ZC.Wu	Add MPN in marking	
E	2022.09.20	ZC.Wu	Adjusting the explanation of the central frequency marking	
F	2023.06.05	ZZ.Zhu	Update tag	
G				
H				