

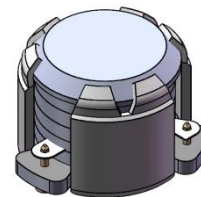


**DP0402C**

**ENG PART:DP-7CM-3400T3600-CCW**

3400MHz to 3600MHz Single-Junction Surface Mount Circulator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
A	Creating datasheet	ZC.Wu	2021/01/11	Nick
B	Update the pin size from 0.7 to 0.6	ZC.Wu	2021/01/26	Nick
C	1.Pin size changed from 0.6 to 0.8; 2.Update the spec.	ZC.Wu	2021/11/15	Nick
D	Update Isolation of extend frequency	ZC.Wu	2022/3/11	Nick
E	Update the packaging drawing	ZC.Wu	2022/9/9	Nick
F	Add the spec @3700MHz	ZC.Wu	2022/10/8	Nick
G	Update the label	ZC.Wu	2022/12/7	Nick
H	Added requirements for the safety spacing between the products	ZC.Wu	2024/9/5	Nick

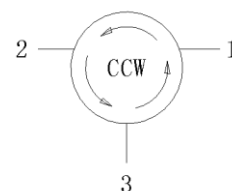


**Applications:**

- Wireless Infrastructure
- Power Amplifier

**Features:**

- Operating frequency range: 3400MHz to 3600MHz
- Operating temperature range: -40°C to +105°C
- Storage temperature range: -65°C to +150°C
- Small surface-mount package delivered on T&R
- BeOfree&RoHS compliant



Block Diagram



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**Electrical Specifications:**

ITEM	SPECIFICATION	
Frequency	3400~3600	MHz
Direction	CCW	
Impedance	Typ: 50	$\Omega$
Insertion Loss (Max.)	0.23@25°C $\pm$ 10°C 0.27@-40~+105°C 0.30@25°C $\pm$ 10°C (3300-3700MHz) 0.35@-40~+105°C (3300-3700MHz)	dB
Isolation (Min.)	21	dB
Return Loss (Min.)	P1:21 17@3300-3700MHz P2:22 17@3300-3700MHz	dB
3rd IMD (Max.)	-60	dBc
Group delay	2	ns
2nd harmonic attenuation	19@25°C 15@-40~+105°C	dB
3rd harmonic attenuation	9@25°C 8@-40~+105°C	dB
Extend Frequency	3200-3800	MHz
Isolation of extend frequency	14	dB
Power FWD/REV/PEAK	25/-/200	W
Resonance point of out off band	3200MHz-3800MHz	W/dB
Input Impedance ,real	44~62 @3300 MHz 46~52 @3400 MHz 42~48 @3500 MHz 42.5 ~49 @3600 MHz 40~62@3700 MHz	$\Omega$
Input Impedance ,imaginary	-12j ~+4j @3300 MHz -8j ~-2j @3400 MHz -5j~+1j @3500 MHz -2 j~+4j@3600 MHz -12 j~+10j@3700 MHz	$\Omega$
Products cannot attract and exclude each other ( Distance between centers )	16	mm

## Notes:

1. Exposure to maximum rating conditions for extended periods may reduce device reliability. There is no damage



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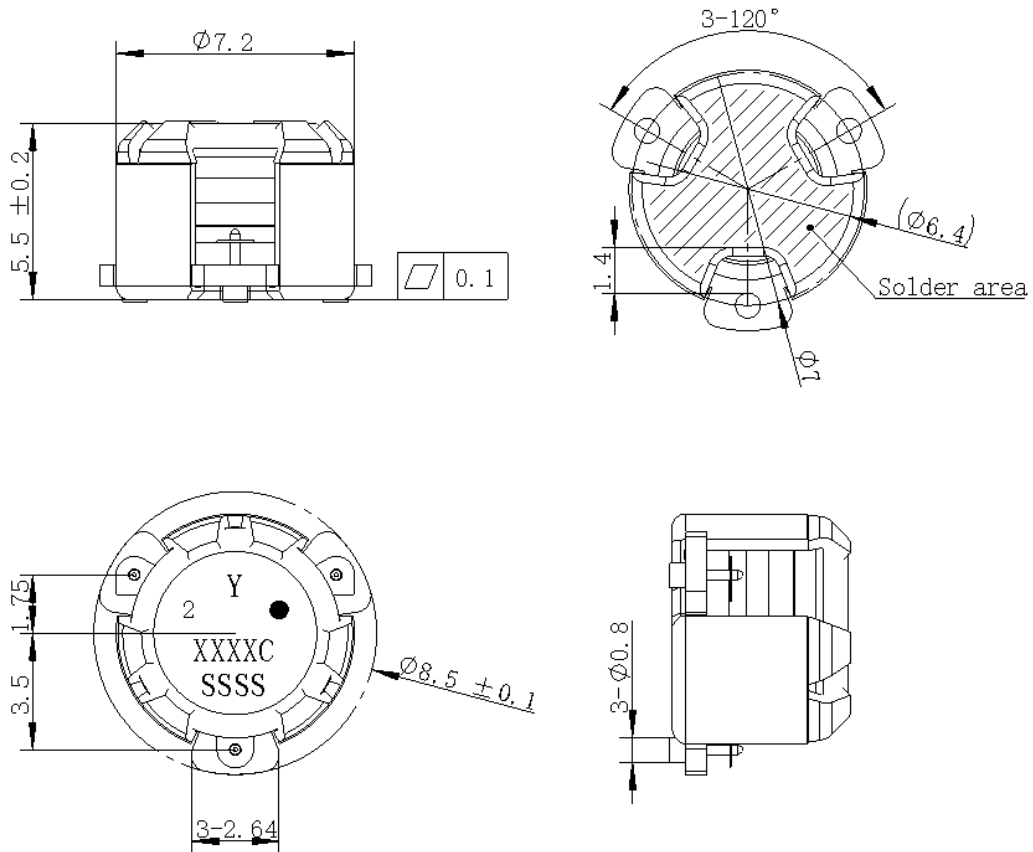
to device with only one parameter set at the limit and all other parameters set at or below their nominal value.

Exceeding any of the limits listed here may result in permanent damage to the device.

2. Performance is guaranteed under the conditions listed in this table and over the operating temperature range.
3. Performance will not degrade by > 10% (Insertion loss > 20%) with the operating temperature up to 130 °C.
4. The distance between the two products is 16 mm, and there should be no mutual attraction or mutual exclusion resulting in device movement



Mechanical Specifications:



Unit: Millimeters

Notes:

1. The housing and pins are silver-plated.
2. Tolerance  $\pm 0.2$ mm unless otherwise specified.
3. Co-planarity Specification: 0.1mm maximum.
4. Part Number, Lot Code, and Port Designation are printed on the top side of device
5. The "Y" show on the label represents the producing year, when printing the producing year, A stands for 2022, B for 2023, C for 2024, and so on (reference DP's file WDPT PD-003).
6. The **XXXXC** on the label represents the last five digits of the Part Number
7. The SSSS on the label represents the serial number
8. The black dot on the label represents the input port



PackagingStyle:

ITEM	W	A0	B0	C0	K0	D	E	F	F2	P	P0	P2	T
DIM	24	Φ7.4	9.2	2.7	6.0	Φ1.5	1.75	11.5	-	16	4	2	0.5
TOLE	±0.2	±0.2	±0.2	±0.2	±0.2	+0.1	±0.1	±0.15	±0.1	±0.1	±0.1	±0.1	±0.05

