

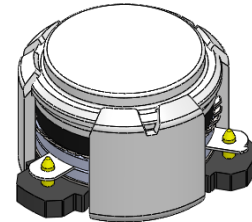


## DP0641C

### ENG PART: DP-10.2CM-3700T3980-CW

3700MHz to 3980MHz Single-Junction Surface Mount Circulator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
A	Creating datasheet	ZC.Wu	2021/9/8	Nick
B	Changed the operating temperature from -25°C~+85°C to -40°C~+85°C	ZC.Wu	2021/10/9	Nick
C	Add recommended reflow profile	ZC.Wu	2021/11/9	Nick

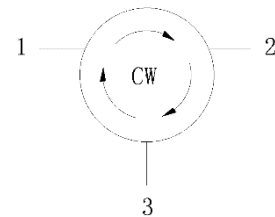


#### Applications:

- Wireless Infrastructure
- Power Amplifier

#### Features:

- Operating frequency range: 3700MHz to 3980MHz
- Operating temperature range: -40°C to +85°C
- Storage temperature range: -40°C to +125°C
- Small surface-mount package delivered on T&R
- BeO free, RoHS & REACH compliant



Block Diagram



### Electrical Specifications:

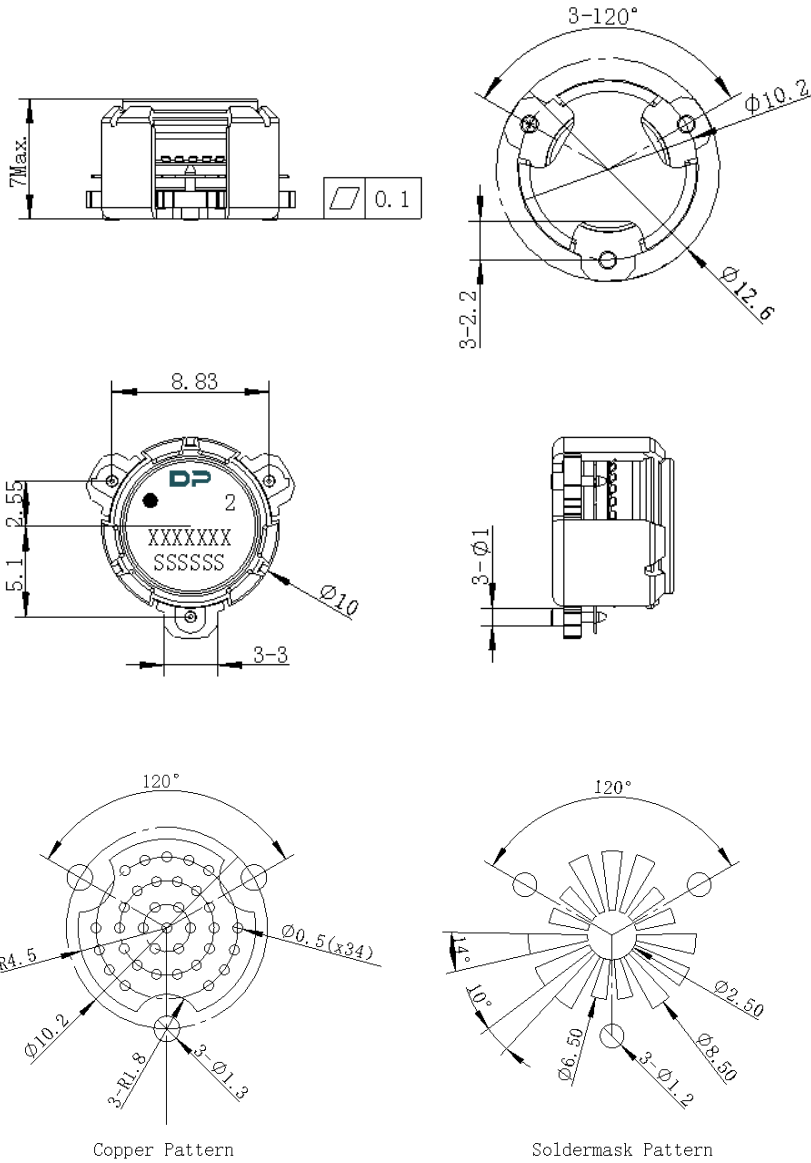
ITEM	SPECIFICATION	
Frequency	3700~3980	MHz
Direction	CW	
Impedance	Typ: 50	$\Omega$
Insertion Loss (Max.)	0.25@25 $\pm$ 5 $^{\circ}$ C 0.30@-40~+85 $^{\circ}$ C	dB
Isolation (Min.)	22	dB
Return Loss (Min.)	22	dB
3rd IMD (Max.)	-60@2x43dBm CW tones, 5MHz spacing -65@2x41dBm CW tones, 5MHz spacing	dBc
Group delay	2	ns
2nd harmonic	/	dBc
3rd harmonic	/	dBc
Power FWD/REV/PEAK	30/30/200	W
Termination/Attenuator	/	W/dB
Input Impedance ,real	/	$\Omega$
Input Impedance ,imaginary	/	j $\Omega$

Notes:

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



### Mechanical Specifications:



#### Notes:

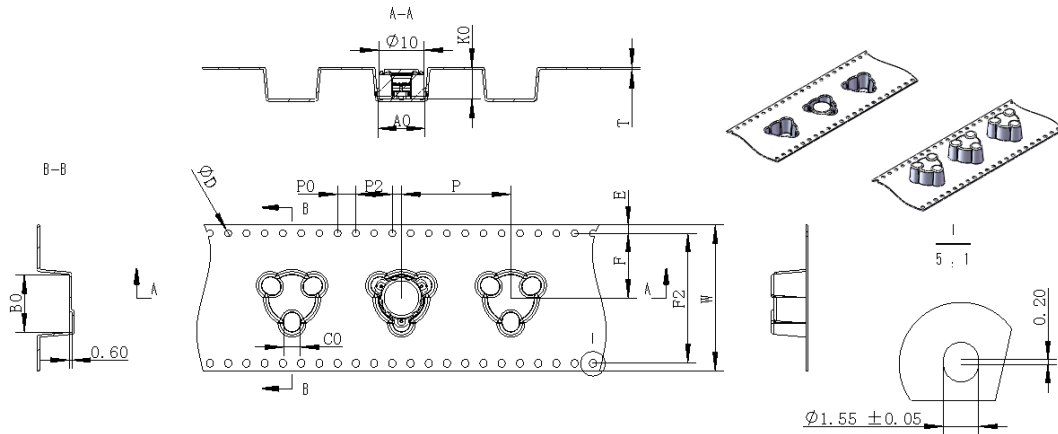
1. The housing and pins are silver-plated.
2. Tolerance  $\pm 0.2\text{mm}$  unless otherwise specified.
3. Co-planarity Specification:  $0.1\text{mm}$  maximum.
4. Part Number, Lot Code, and Port Designation are printed on the top side of device
5. The XXXXXXX on the label represents the part number
6. The SSSSSS on the label represents the serial number
7. The black dot on the label represents the input port

Unit: Millimeters

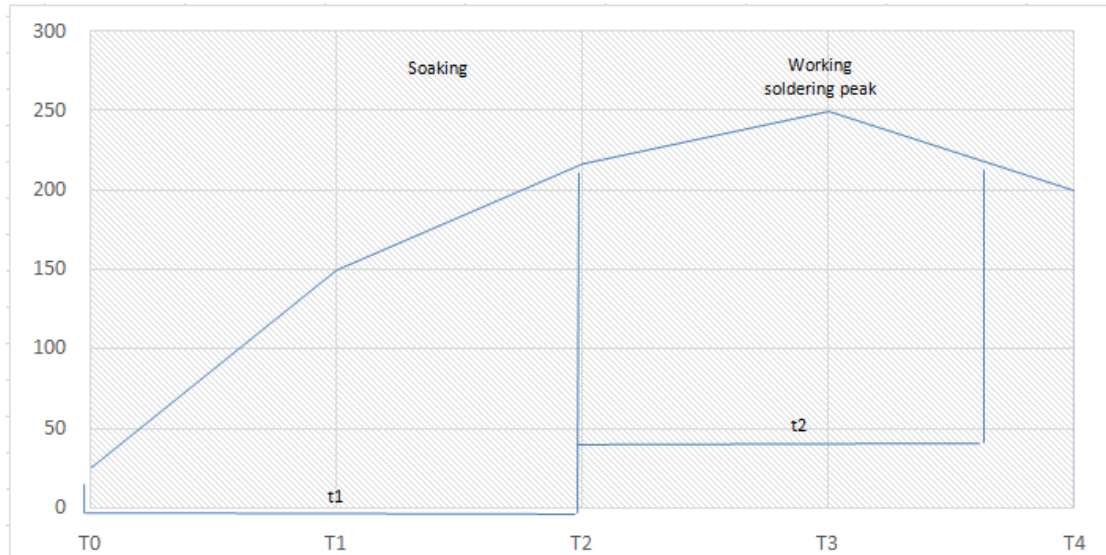


Packaging Style:

ITEM	W	A0	B0	C0	K0	D	E	F	F2	P	P0	P2	T
DIM	32	Φ10.4	12.5	4	7.0	Φ1.5	1.75	14.2	28.5	24	4	2	0.5
TOLE	±0.3	±0.2	±0.2	±0.2	±0.2	+0.1	±0.1	±0.15	±0.1	±0.1	±0.1	±0.1	±0.05



RECOMMENDED REFLOW PROFILE:



Temperature zone	T0	T1	T2	T3	T4
Temp. (°C)	25	150	210	240-260	200
Time (s)	t1		t2		
	160-200		60-180		