

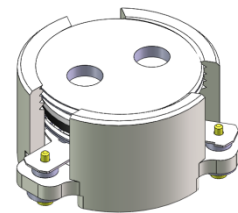


## DP0129C

### ENG PART:DP-12.5CM-1805T1880-CW

1805MHz to 1880MHz Single-Junction Surface Mount Circulator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
A	Creating datasheet	ZC.Wu	2020/08/03	Nick
B	Update the packaging drawing	ZC.Wu	2023/11/02	Nick

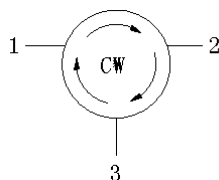


#### Applications:

- Wireless Infrastructure
- Power Amplifier

#### Features:

- Operating frequency range: 1805MHz to 1880MHz
- Operating temperature range: -40°C to +85°C
- Storage temperature range: -55°C to +135°C
- Small surface-mount package delivered on T&R
- BeOfree&RoHS compliant



Block Diagram



**Electrical Specifications:**

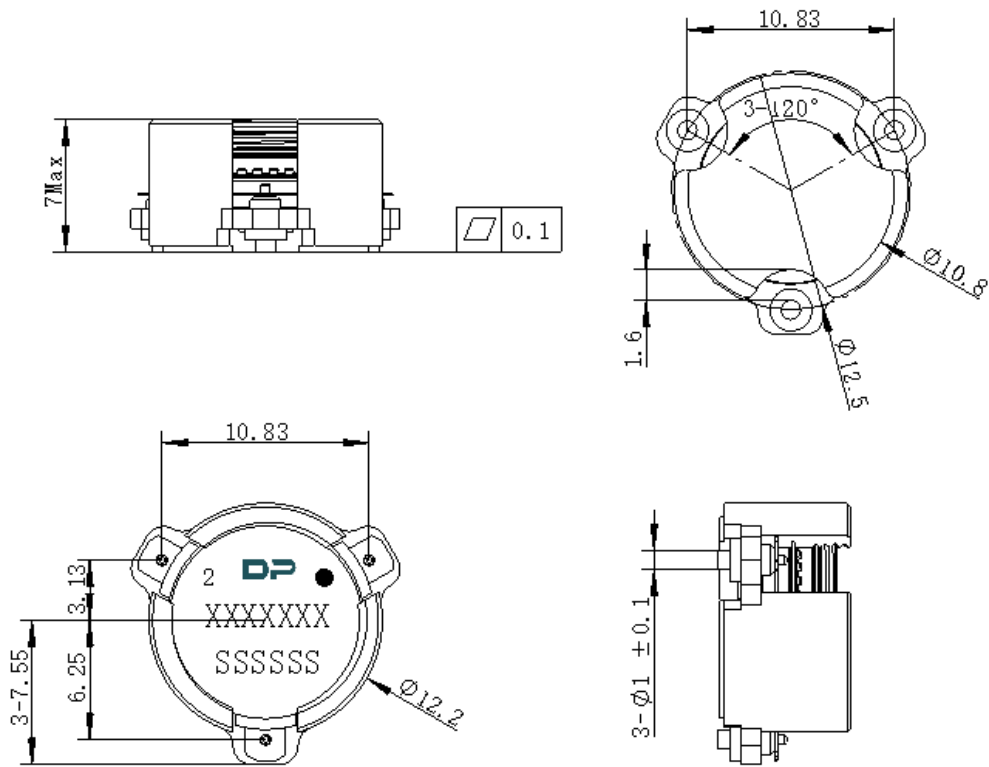
ITEM	SPECIFICATION	
Frequency	1805~1880	MHz
Extend frequency	1655~2030	MHz
Direction	CW	
Impedance	Typ: 50	$\Omega$
Insertion Loss (Max.)	0.25 (Typ.) 0.30@-40~+85°C	dB
Isolation (Min.)	21.0@1805~1880MHz 10.0@1655~2030MHz	dB
Return Loss (Min.)	21	dB
FWD 3rd IMD (Max.)	-60	dBc
Group delay	2	ns
2nd harmonic suppression	15	dBc
3rd harmonic suppression	5	dBc
Power FWD/REV/PEAK	70/70/560	W
Termination/Attenuator	/	W/dB
Input Impedance ,real	43Min 50Typ. 57Max	$\Omega$
Input Impedance ,imaginary	-7.0j Min 0 Typ +7.0j Max	$\Omega$
Out-of-band resonance point	Resonance point away 1605 MHz to 2080 MHz	

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.
3. Performance will not degrade by > 10% (Insertion loss > 20%) with an operating temperature of up to 130 °C.



### 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. Part Number format shall be XXXXXXX.
6. Serial Number format shall be SSSSSS



Packaging Style:

ITEM	W	A0	B0	K0	D	E	F	F2	P	P0	P2	T
DM	32	12.7	15	7.4	Φ1.5	1.75	14.2	28.5	20	4	2	0.5
TOLE	±0.3	±0.2	±0.2	+0.2	+0.1	±0.1	±0.15	±0.1	±0.1	±0.1	±0.1	±0.05

