

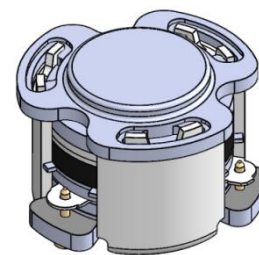


## DP0589C

### ENG PART:DP-7.0CM-5150T5950-CW

5150MHz to 5950MHz Single-Junction Surface Mount Circulator

| REV. | DESCRIPTION                             | REVISOR | DATE       | APPROVED |
|------|---|---------|------------|----------|
| A    | Creating datasheet                      | ZC.Wu   | 2021/8/2   | Nick     |
| B    | Update the label and product appearance | ZZ.Zhu  | 2022/12/15 | NICK     |

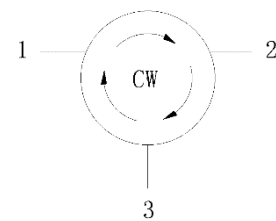


#### Applications:

- Wireless Infrastructure
- Power Amplifier

#### Features:

- Operating frequency range: 5150MHz to 5950MHz
- Operating temperature range: -40°C to +85°C
- Storage temperature range: -50°C to +100°C
- Small surface-mount package delivered on T&R
- BeOfree & RoHS compliant



Block Diagram



### Electrical Specifications:

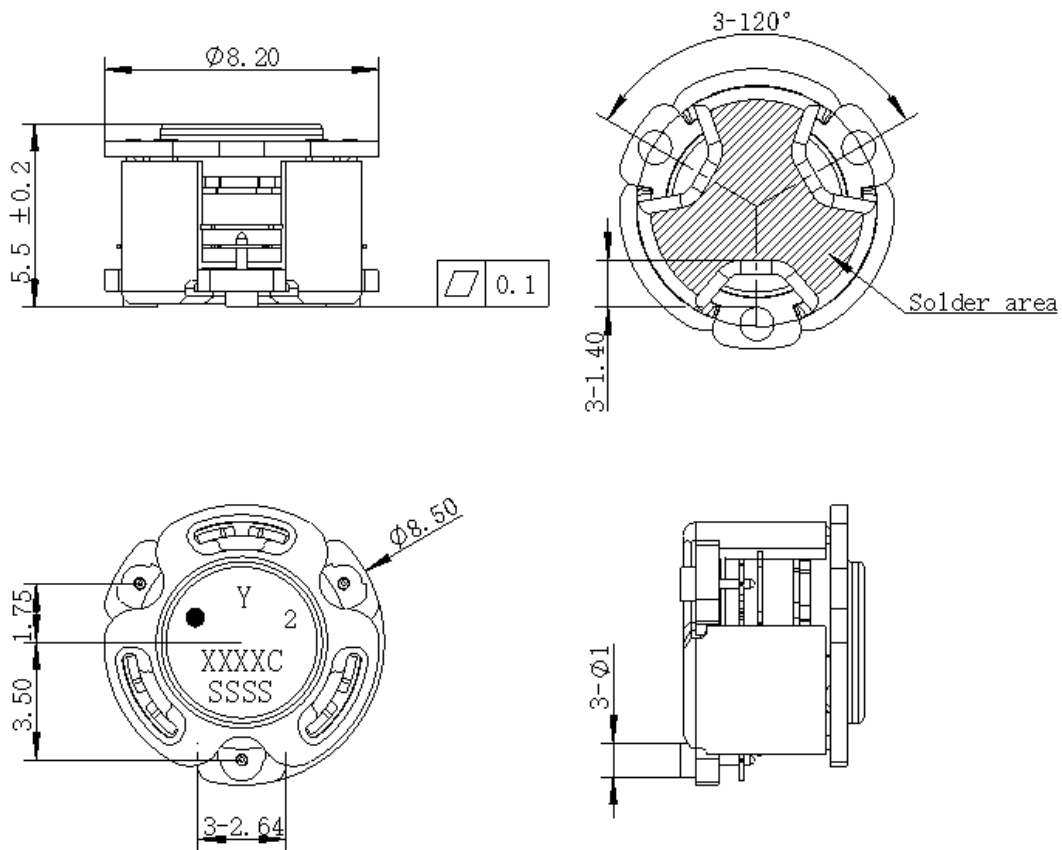
| ITEM                           | SPECIFICATION                 |          |
|--------------------------------|-------------------------------|----------|
| Frequency                      | 5150~5950                     | MHz      |
| Direction                      | CW                            |          |
| Impedance                      | Typ: 50                       | $\Omega$ |
| Insertion Loss (Max.)          | 0.55@25±5°C<br>0.60@-40~+85°C | dB       |
| Insertion Loss Ripple (Max.)   | /                             | dB       |
| Isolation (Min.)               | 20.0@25±5°C<br>18.0@-40~+85°C | dB       |
| Return Loss (Min.)             | 20.0@25±5°C<br>18.0@-40~+85°C | dB       |
| 3rd IMD (Max.)                 | /                             | dBc      |
| Group delay                    | /                             | ns       |
| 2nd harmonic rejection (Min. ) | /                             | dB       |
| 3rd harmonic rejection (Min. ) | /                             | dB       |
| Power FWD/REV/PEAK             | 30/30/150                     | W        |
| Termination/Attenuator         | /                             | W/dB     |
| Phase flatness                 | /                             | °        |

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:



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



Packaging Style:

| 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  | -    | 20   | 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 |

