

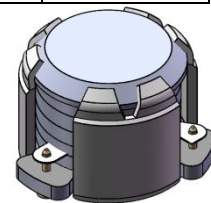


DP0319C

ENG PART:DP-7.0CM-2496T2690-CW

2496MHz to 2690MHz Single-Junction Surface Mount Circulator

| REV. | DESCRIPTION | REVISOR | DATE | APPROVED |
|------|--------------------|---------|------------|----------|
| A | Creating datasheet | ZC.Wu | 2020/09/14 | Nick |
| B | Updated datasheet | ZC.Wu | 2021/09/22 | Nick |
| C | Update the label | ZC.Wu | 2022/11/30 | Nick |

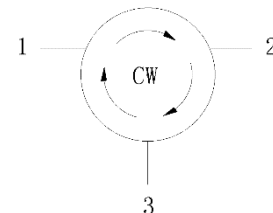


Applications:

- Wireless Infrastructure
- Power Amplifier

Features:

- Operating frequency range: 2496MHz to 2690MHz
- Operating temperature range: -40°C to +110°C
- Storage temperature range: -50°C to +130°C
- Small surface-mount package delivered on T&R
- BeOfree&RoHS compliant



Block Diagram



Electrical Specifications:

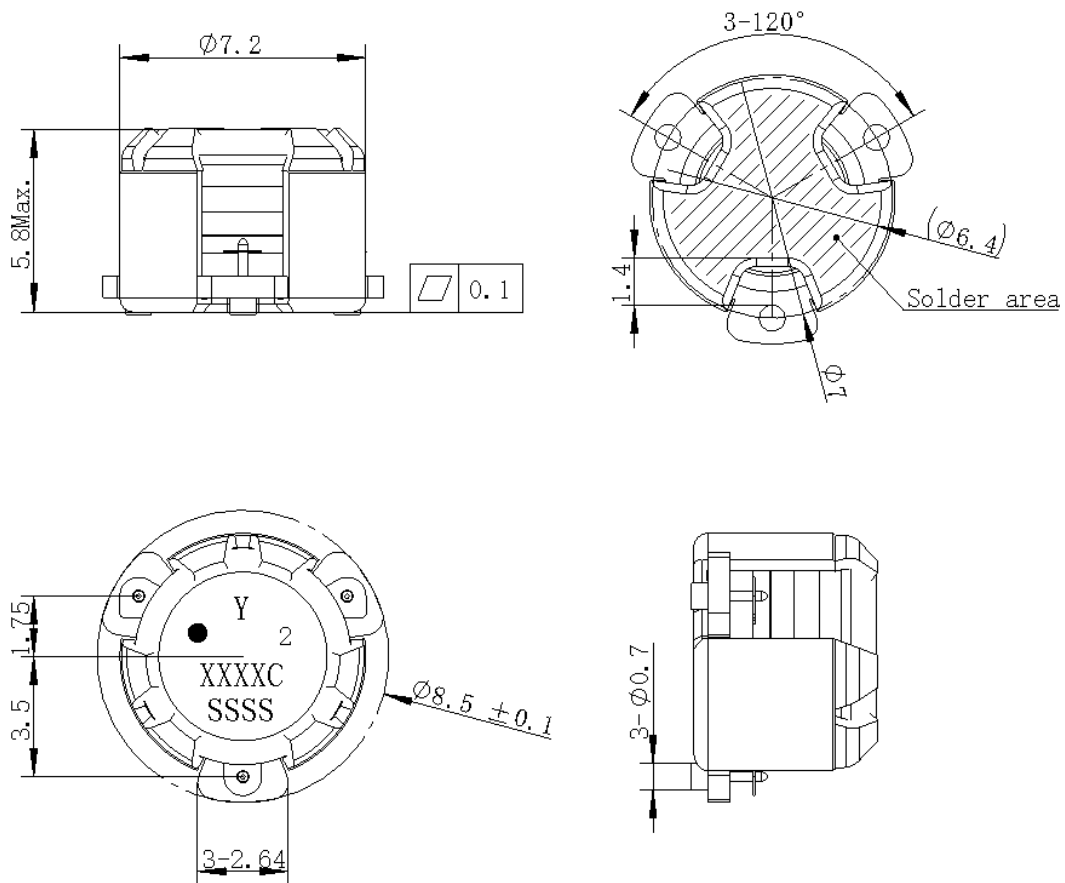
| ITEM | SPECIFICATION | |
|---------------------------------|---|----------|
| Frequency | 2496~2690 | MHz |
| Direction | CW | |
| Impedance | Typ: 50 | Ω |
| Insertion Loss (Max.) | 0.30@25°C \pm 10°C 0.35@-40~+110°C | dB |
| Isolation (Min.) | 22@25°C \pm 10°C 20@-40~+110°C | dB |
| Return Loss (Min.) | 22@25°C \pm 10°C 21@-40~+110°C | dB |
| 3rd IMD (Max.) | -62@2x5W CW tones, 1MHz spacing | dBc |
| Group delay(Max.) | 2 | ns |
| 2nd harmonic attenuation (Min.) | 20 | dB |
| 3rd harmonic attenuation (Min.) | 8 | dB |
| Nx harmonic attenuation(Min.) | / | dB |
| Power FWD/REV/PEAK(Max.) | 30/-/200(A pulse with a 100:1 duty cycle) | W |
| Termination/Attenuator | / | W/dB |
| Input Impedance ,real | / | Ω |
| Input Impedance ,imaginary | / | Ω |

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 $\pm 0.2 \text{ mm}$ unless otherwise specified.
3. Co-planarity Specification: 0.1 mm maximum.
4. 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).
5. Part Number, Lot Code, and Port Designation are printed on the top side of device
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 |

