

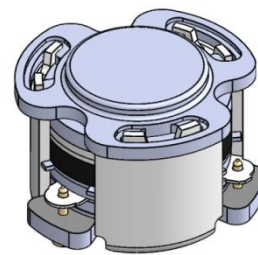


DP3822C

ENG PART:DP-7CM-6425T6825-CCW

6425MHz to 6825MHz Single-Junction Surface Mount Circulator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
A	Creating datasheet	ZZ.Zhu	2025/3/18	Nick

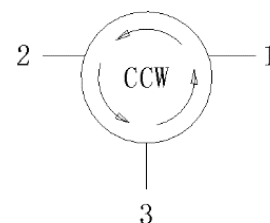


Applications:

- Wireless Infrastructure
- Power Amplifier

Features:

- Operating frequency range: 6425MHz to 6825MHz
- Operating temperature range: -40°C to +125°C
- Storage temperature range: -50°C to +150°C
- Small surface-mount package delivered on T&R
- BeOfree&RoHS compliant



Block Diagram



Electrical Specifications:

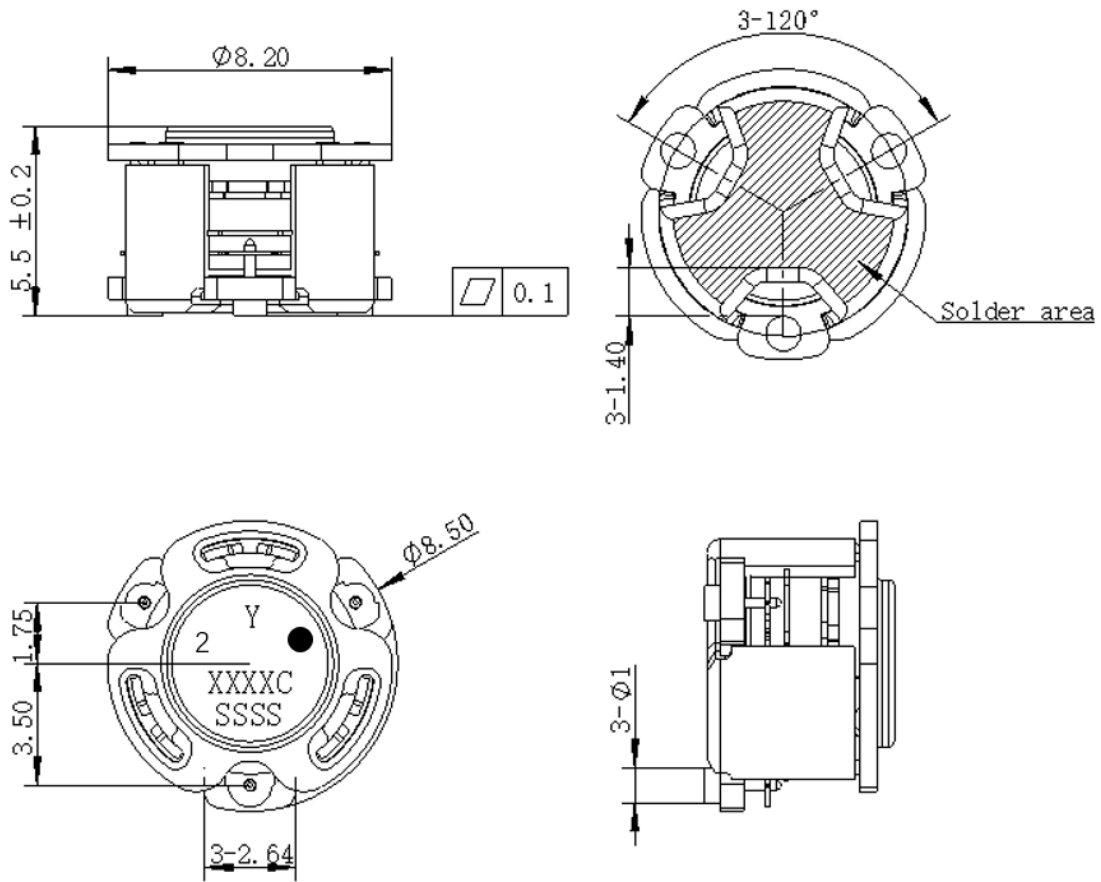
ITEM	SPECIFICATION	
Frequency	6425~6825	MHz
Direction	CCW	
Impedance	Typ: 50	Ω
Insertion Loss (Max.)	0.35@25°C ± 10°C 0.45@-40~+125°C	dB
Isolation (Min.)	20@-40~+125°C	dB
Return Loss (Min.)	20@-40~+125°C	dB
3rd IMD (Max.)	-40@2x5W Tones Spacing 1MHz	dBc
Group delay	2	ns
2nd harmonicsuppression	/	dBc
3rd harmonicsuppression	/	dBc
Extend Frequency	6225-7025	MHz
Isolation of extend frequency	13	dB
Power FWD/REV/PEAK	30/30/200	W
Resonance point of out off band	6225MHz-7025MHz	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.
3. Performance will not degrade by > 10% (Insertion loss > 20%) with the operating temperature up to 130 °C.



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: 0.1mm 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