

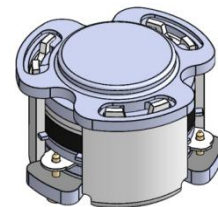


DP0299C

ENG PART: DP-7CM-3300T3800-CW

3300MHz to 3800MHz Single-Junction Surface Mount Circulator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
A	Creating datasheet	ZC.Wu	2020/09/02	Nick
B	Update the label	ZZ.Zhu	2023/6/1	Nick
C	Update the outline drawing	ZC.Wu	2024/01/19	Nick
D	The PIN size changed from 0.8 to 1.0	ZC.Wu	2024/06/24	Nick

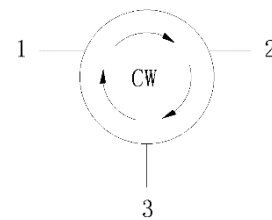


Applications:

- Wireless Infrastructure
- Power Amplifier

Features:

- Operating frequency range: 3300MHz to 3800MHz
- Operating temperature range: -40°C to +110°C
- Storage temperature range: -40°C to +125°C
- Small surface-mount package delivered on T&R
- BeO free & RoHS compliant



Block Diagram



Electrical Specifications:

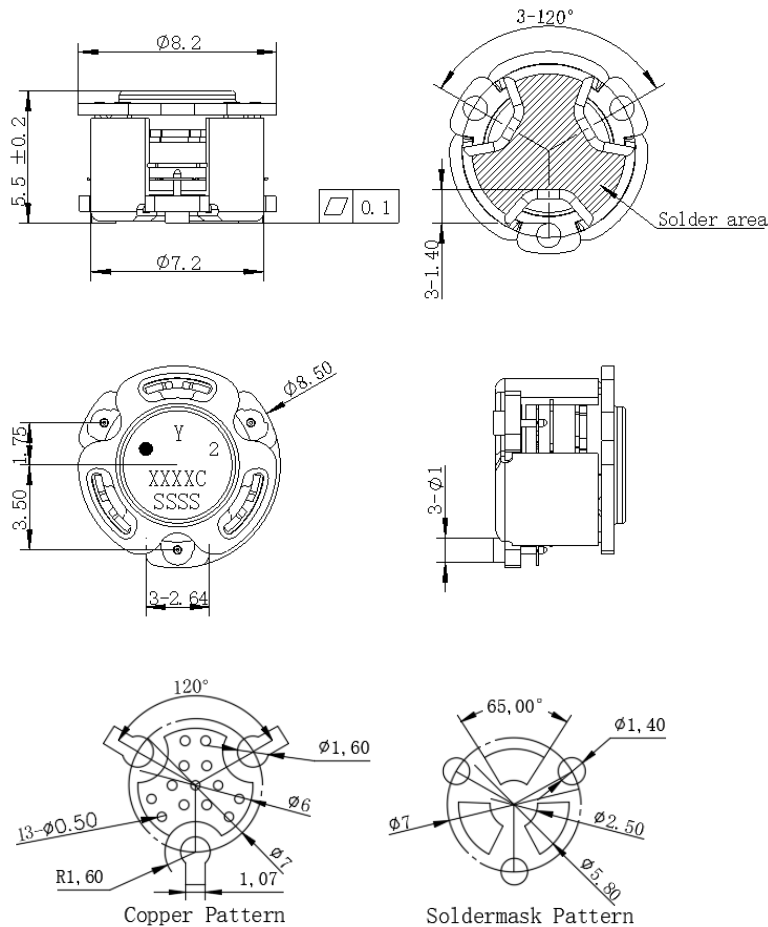
ITEM	SPECIFICATION	
Frequency	3300~3800	MHz
Direction	CW	
Impedance	Typ: 50	Ω
Insertion Loss (Max.)	0.5@3300-3800MHz 0.35@3400-3600MHz	dB
Isolation (Min.)	16@3300-3800MHz 19@3400-3600MHz	dB
Return Loss (Min.)	16@3300-3800MHz 19@3400-3600MHz	dB
3rd IMD (Max.)	-60@2x1W CW tones, 1MHz spacing	dBc
Group delay	2	ns
2nd harmonic	10	dB
3rd harmonic	5	dB
Out of band resonance	3000-4000	MHz
Power FWD/REV/PEAK	30/30/150	W
Termination/Attenuator	/	W/dB
Input Impedance (Real)	40~62	Ω
Input Impedance (Imaginary)	-8j~+8j	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 an operating temperature of up to 130 °C.



Mechanical Specifications:



PCB Material: ROGERS R04350B 0.508mm thickness trace width 1.07mm wide

Unit: Millimeters

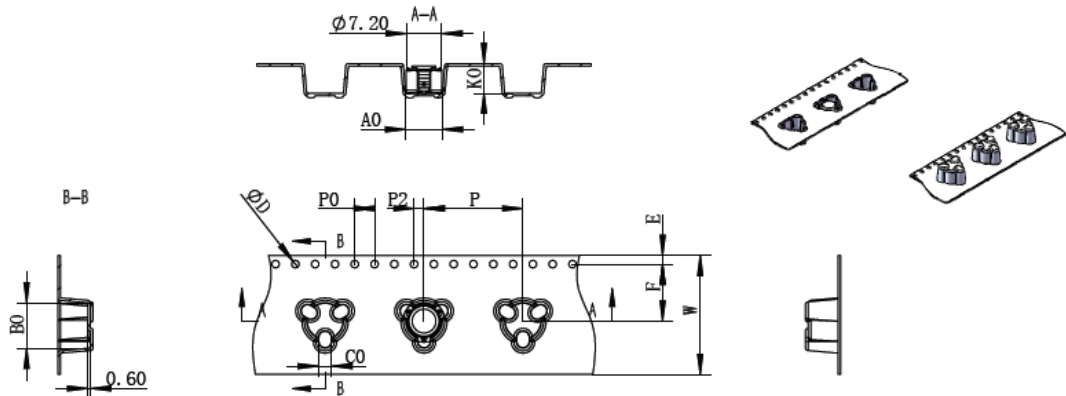
Notes:

1. The housing and pins are silver-plated.
2. Tolerance ± 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" shown on the label represents the producing year, when printing the producing year, A stands for 2022, B for 2023, C for 2024, and soon (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

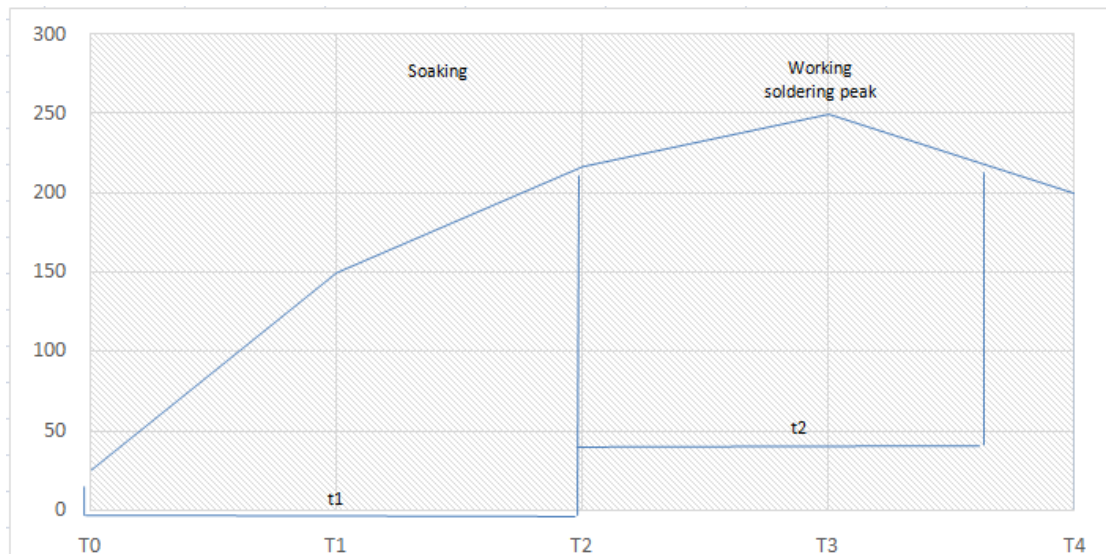


PackagingStyle:

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



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		