



**DP0859C**

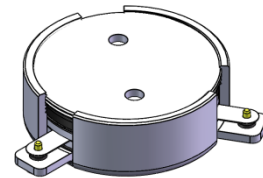
**ENG PART:DP-28.4CM-617T652-CW**

617MHz to 652MHz Single-Junction Surface Mount Circulator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
A	Creating datasheet	ZC.Wu	2020/1/19	Nick
B	Operating temperature changed from -40~+105°C to -40~+130°C and IMD changed from -70 to -68	ZC.Wu	2022/4/18	Nick

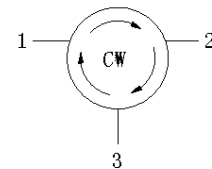
**Applications:**

- Wireless Infrastructure
- Power Amplifier



**Features:**

- Operating frequency range: 617MHz to 652MHz
- Operating temperature range: -40°C to +130°C
- Storage temperature range: -55°C to +150°C
- Small surface-mount package delivered on T&R
- BeOfree&RoHS compliant



Block Diagram



### Electrical Specifications:

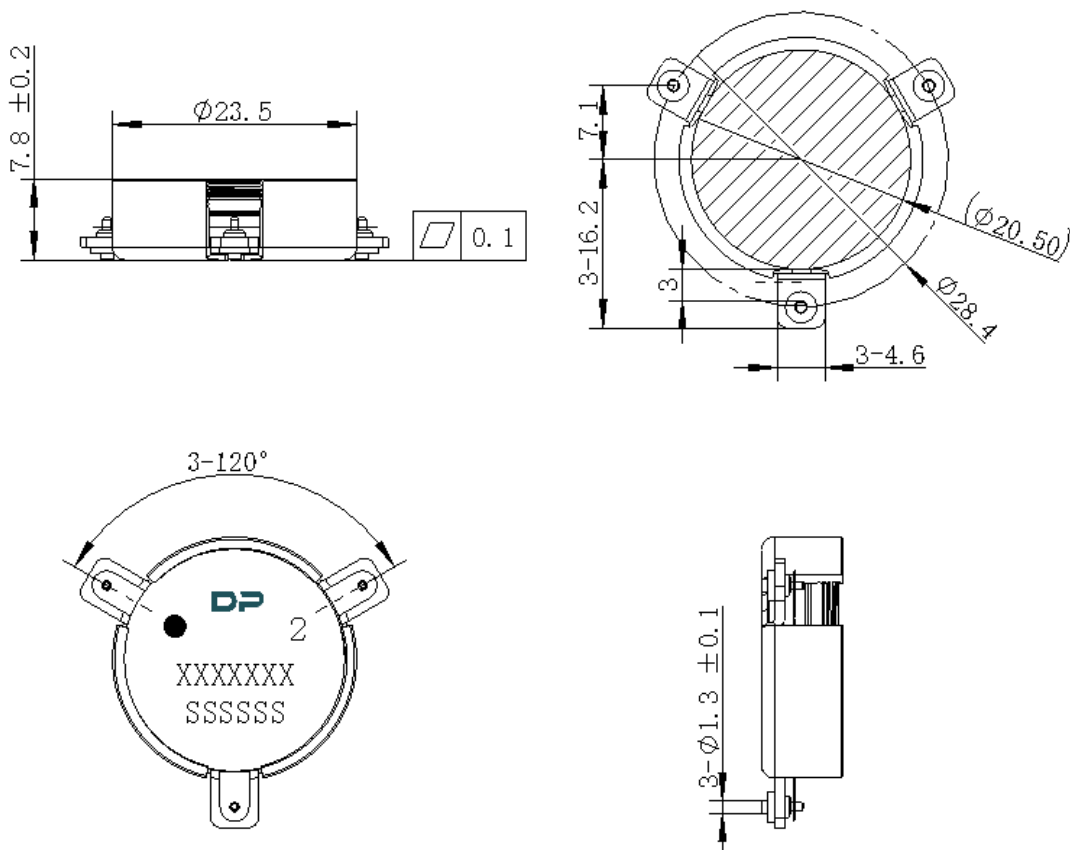
ITEM	SPECIFICATION	
Frequency	617~652	MHz
Direction	CW	
Impedance	Typ: 50	$\Omega$
Insertion Loss (Max.)	0.25@25 $\pm$ 5 $^{\circ}$ C 0.30@-40~+130 $^{\circ}$ C	dB
Isolation (Min.)	23@25 $\pm$ 5 $^{\circ}$ C 21@-40~+130 $^{\circ}$ C	dB
Return Loss (Min.)	23@25 $\pm$ 5 $^{\circ}$ C 21@-40~+130 $^{\circ}$ C	dB
FWD 3rd IMD (Max.)	-68@2x50W, tones spacing 5MHz	dBc
Group delay	-	ns
2nd harmonic suppression	-	dBc
3rd harmonic suppression	-	dBc
Power FWD/REV/PEAK	160/160/800	W
Ripple of group delay in extend frequency	-	ns
Input Impedance ,real	-	$\Omega$
Input Impedance ,imaginary	-	$\Omega$
Resonance point out-off-band	-	

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 **XXXXXXX** on the label represents the part number
6. The **SSSSSS** on the label represents the serial number
7. The black dots represent the input ports



Packaging Style:

ITEM	W	A0	B0	K0	D	E	F	F2	P	P0	P2	T
DM	56	Φ24.2	-	8.4	Φ1.5	1.75	26.25	52.5	40	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

