



## DP3259C

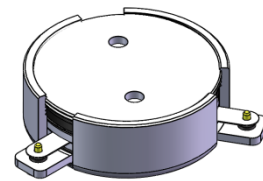
### ENG PART: DP-28.4CM-758T821-CW

758MHz to 821MHz Single-Junction Surface Mount Circulator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
A	SAME AS REV.2	ZZ.Zhu	2024/7/2	Nick
B	Updated the spec.	ZC.Wu	2024/12/18	Nick

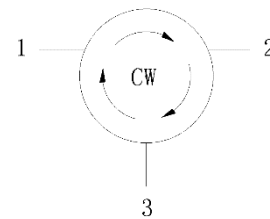
#### Applications:

- Wireless Infrastructure
- Power Amplifier



#### Features:

- Operating frequency range: 758MHz to 821MHz
- Operating temperature range: -40°C to +125°C
- Storage temperature range: -65°C to +150°C
- Small surface-mount package delivered on T&R
- BeO free & RoHS compliant



Block Diagram

**Electrical Specifications:**

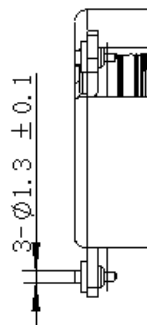
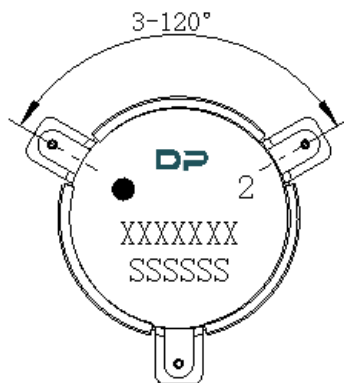
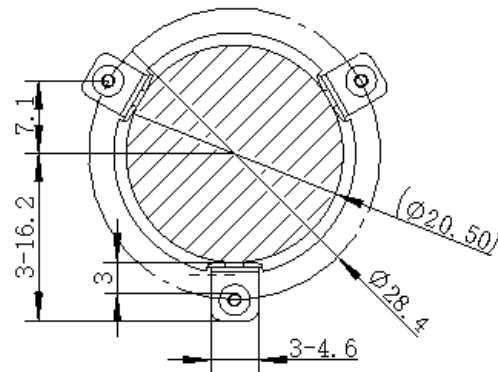
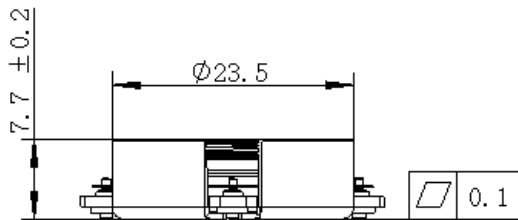
ITEM	SPECIFICATION	
Frequency	758~821	MHz
Extend frequency	668MHz~911 MHz(+25~+125℃) 668MHz~890MHz(-40~+25℃)	MHz
Direction	CW	
Impedance	Typ: 50	Ω
Insertion Loss (Max.)	0.22@25℃±5℃ 0.25@-40~+125℃	dB
Isolation (Min.)	22 9.0@668MHz~911MHz(+25~+125℃) 9.0@668MHz~890MHz(-40~+25℃)	dB
Return Loss (Min)	23	dB
3rd IMD (Max.)	-75@2*100W CW,Spacing 1MHz(25℃±5) -70@2*100W CW,Spacing 1MHz (-40~+125℃)	dBc
Group delay	2.5	ns
Ripple of group delay in extend frequency	2.0	ns
2nd harmonicsuppression	12	dBc
3rd harmonicsuppression	8	dBc
Power FWD/REV/PEAK	250/-/2000	W
Input Impedance ,real	+46~+56(typ.51) @758MHz +44~+54(typ.49) @789MHz +44~+55(typ.49) @821MHz	Ω
Input Impedance ,imaginary	-6~+5(typ.-1) @758MHz -5~+5(typ.0) @789MHz -4 ~+6(typ.+1) @821MHz	jΩ
Output Impedance ,real	+44~+57(typ.50) @758MHz +43~+56(typ.50)@789MHz +43~+56(typ.50)@821MHz	Ω
Output Impedance , imaginary	-6 ~+6(typ.0) @758MHz -6 ~+6(typ.0)@789MHz -6 ~+6(typ.0)@821MHz	jΩ
Resonance point of out-off-band	668MHz~911 MHz(+25~+125℃) 668MHz~890MHz(-40~+25℃)	

## 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:



Unit: Millimeters

#### Notes:

1. The housing and pins are silver-plated.
2. Tolerance  $\pm 0.2$  mm unless otherwise specified.
3. Co-planarity Specification: 0.1 mm 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
DIM	56	Φ24.2	—	8.4	Φ1.5	1.75	26.25	52.5	40	4	2	0.5
TOL	±0.3	±0.2	±0.2	-0.2	+0.1	±0.1	±0.15	±0.1	±0.1	±0.1	±0.1	±0.05

