

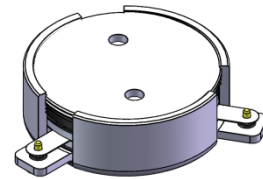


DP2133C

ENG PART:DP-28.4CM-1805T2170-CW

1805MHz to 2170MHz Single-Junction Surface Mount Circulator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
1	Creating datasheet	ZC.Wu	2022/8/8	Nick

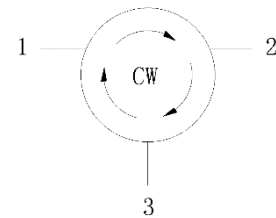


Applications:

- Wireless Infrastructure
- Power Amplifier

Features:

- Operating frequency range: 1805MHz to 2170MHz
- Operating temperature range: -40°C to +120°C
- Storage temperature range: -65°C to +150°C
- Small surface-mount package delivered on T&R
- BeOfree&RoHS compliant



Block Diagram

**Electrical Specifications:**

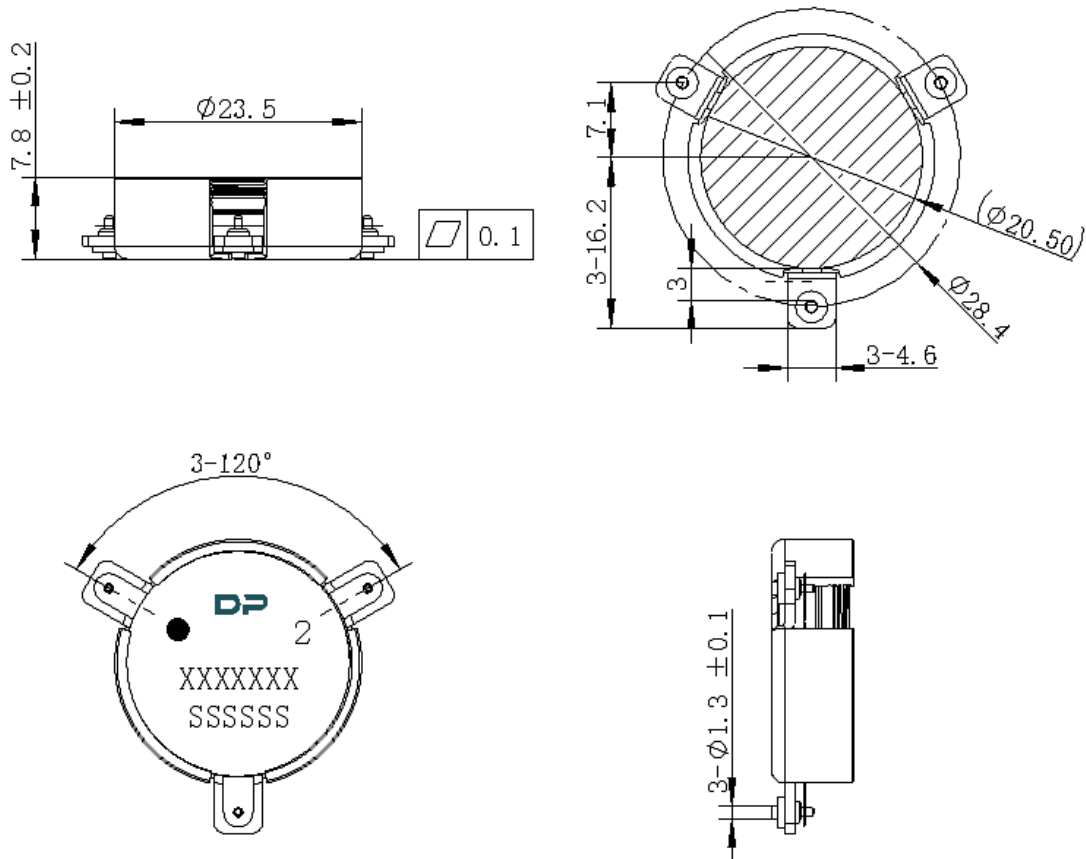
ITEM	SPECIFICATION	
Frequency	1805~2170	MHz
Direction	CW	
Impedance	Typ: 50	Ω
Insertion Loss (Max.)	0.18@-40~+120 $^{\circ}$ C 0.13@25 \pm 5 $^{\circ}$ C	dB
Isolation (Min.)	21	dB
Return Loss (Input.)Max	23	dB
3rd IMD (Max.)@1805~1880MHz	-72@2x50W CW Tones -40~+90 $^{\circ}$ C -70@2x50W CW Tones +90~+120 $^{\circ}$ C	dBc
3rd IMD (Max.)@2110~2170MHz	-68@2x50W CW Tones -40~+90 $^{\circ}$ C -65@2x50W CW Tones +90~+120 $^{\circ}$ C	dBc
Group delay	2	ns
2nd harmonicsuppression	10	dBc
3rd harmonicsuppression	5	dBc
Extend Frequency	/	MHz
Isolation of extend frequency	/	dB
Power FWD/REV/PEAK	200/-/1600	W
Resonance point of out off band	/	W/dB
Input Impedance ,real	47~55(Typ.51) @1805 MHz 43~51(Typ.47)@1880 MHz 46~54(Typ.50)@2110 MHz 47~55(Typ.51) @2170 MHz	Ω
Input Impedance ,imaginary	-5j ~+2j(Typ.-2) @1805 MHz -3.5j ~+3.5j(Typ.0) @1880 MHz 0j~+6j(Typ.4) @2110MHz -2j ~+5j(Typ.1)@2170 MHz	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 $^{\circ}$ C.



Mechanical Specifications:



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. PartNumber, Lot Code, and Port Designation are printed on the top side of device
5. The **XXXXC** on the label represents the last five digits of the PartNumber.
6. Date code is in format **YYWW**
7. The black dot on the label represents the input port



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
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

