

Standard Drop-In Circulators

All catalog part numbers are for devices with clockwise rotation, however, counter-clockwise rotation is available by request. Encapsulation is available on some designs for high peak power and high altitude capability. Contact our Customer Service Representatives for special performance and unique mechanical configurations. We have many other designs not listed here on our website as we develop new designs almost on a daily basis.

Frequency Range (GHz)	Insertion Loss (Max) (-dB)	VSWR (Max)	Power Rating (Watts)	* Operating Temperature °C	Footprint (in x in)	Part Number	Outline Drawing	Notes
0.790 - 0.830	0.30	1.20	150	-10 to +85	1.00 x 1.00	990-790830-501	D08	
0.800 - 0.825	0.20	1.15	200	-20 to +70	1.00 x 1.00	990-800825-501	D08	
0.800 - 0.960	0.40	1.28	200	0 to +85	1.00 x 1.00	990-800960-501	D08	
0.800 - 1.000	0.50	1.35	150	-20 to +85	1.00 x 1.00	990-800100-501	D08	
0.824 - 0.960	0.35	1.22	200	-20 to +85	1.00 x 1.00	990-824960-501	D08	
0.850 - 0.960	0.40	1.12	200	-15 to +65	1.00 x 1.00	990-850960-501	D08	
0.860 - 0.870	0.25	1.18	200	-10 to +70	1.00 x 1.00	890-860870-501	D02	
0.869 - 0.894	0.25	1.18	200	-10 to +70	1.00 x 1.00	890-869894-501	D02	
0.925 - 0.960	0.25	1.18	200	-10 to +70	1.00 x 1.00	890-925960-501	D02	
0.960 - 1.230	0.60	1.42	100	-40 to +85	1.00 x 1.00	990-960123-501	D08	
1.010 - 1.100	0.30	1.22	100	-40 to +85	1.00 x 1.00	990-101110-501	D08	
1.030 - 1.090	0.40	1.22	100	-40 to +85	1.00 x 1.00	990-103109-503	D08	12
1.200 - 1.400	0.40	1.22	150	-10 to +75	1.00 x 1.00	890-120140-501	D02	
1.520 - 1.660	0.30	1.20	150	-20 to +70	1.00 x 1.00	890-152166-501	D02	
1.600 - 1.800	0.40	1.22	100	-40 to +85	0.75 x 0.75	990-160180-301	D03	4
1.750 - 1.850	0.30	1.20	220	-20 to +70	1.00 x 1.00	990-175185-501	D02	
1.700 - 2.000	0.40	1.22	30	-40 to +100	0.75 x 0.75	990-170200-301	D03	
1.710 - 1.990	0.35	1.22	75	-40 to +85	0.75 x 0.75	990-171199-301	D09	
1.710 - 2.170	0.40	1.22	150	0 to +70	1.00 x 1.00	890-171217-501	D02	
1.800 - 2.000	0.40	1.25	30	-40 to +100	0.75 x 0.75	094-039034-001	D03	
1.800 - 2.170	0.40	1.25	50	-10 to +85	0.75 x 0.75	990-180217-301	D03	
1.805 - 1.880	0.25	1.20	150	-20 to +70	0.75 x 0.75	890-180188-301	D01	
1.805 - 1.880	0.28	1.20	200	-20 to +70	1.00 x 1.00	890-180188-501	D02	
1.850 - 1.990	0.45	1.25	70	-20 to +70	0.75 x 0.75	890-185199-301	D01	
1.880 - 1.920	0.20	1.20	70	-40 to +100	0.75 x 0.75	094-039040-002	D03	
1.900 - 2.100	0.40	1.25	30	-40 to +100	0.75 x 0.75	094-039039-001	D03	
1.920 - 2.170	0.35	1.22	70	-20 to +85	0.75 x 0.75	990-192217-301	D09	
1.930 - 1.990	0.25	1.25	50	-40 to +100	0.75 x 0.75	094-039040-001	D03	
1.930 - 1.990	0.25	1.20	150	-20 to +70	0.75 x 0.75	890-193199-301	D01	
1.930 - 1.990	0.28	1.20	200	-20 to +70	1.00 x 1.00	890-193199-501	D02	
1.930 - 1.990	0.30	1.18	150	-10 to +85	1.00 x 1.00	994-039064-005	D04	2, 8
2.000 - 2.300	0.30	1.25	75	-20 to +85	0.75 x 0.75	990-200230-301	D09	
2.000 - 2.150	0.30	1.20	70	-30 to +85	0.75 x 0.75	994-039029-015	D03	
2.050 - 2.250	0.33	1.22	100	-20 to +70	0.75 x 0.75	890-205225-301	D01	
2.090 - 2.190	0.25	1.20	150	-30 to +85	1.00 x 1.00	994-039067-003	D04	

Frequency Range (GHz)	Insertion Loss (Max) (-dB)	VSWR (Max)	Power Rating (Watts)	* Operating Temperature °C	Footprint (in x in)	Part Number	Outline Drawing	Notes
2.100 - 2.200	0.25	1.20	150	-30 to +85	1.00 x 1.00	994-039067-002	D04	
2.100 - 2.200	0.30	1.22	100	-20 to +85	0.75 x 0.75	990-210220-301	D09	
2.100 - 2.300	0.40	1.25	70	-40 to +100	0.75 x 0.75	094-039033-013	D03	
2.110 - 2.170	0.23	1.20	50	-40 to +100	0.75 x 0.75	994-039038-051	D03	
2.110 - 2.170	0.28	1.17	100	-20 to +70	0.75 x 0.75	890-211217-301	D01	
2.200 - 2.300	0.30	1.25	70	-30 to +70	0.75 x 0.75	994-039029-011	D03	4
2.200 - 2.500	0.40	1.25	70	-20 to +85	0.75 x 0.75	990-220250-301	D09	
2.250 - 2.280	0.30	1.25	70	-30 to +70	0.75 x 0.75	994-039029-013	D03	4
2.300 - 2.400	0.26	1.20	70	-20 to +70	0.75 x 0.75	890-230240-303	D01	
2.400 - 2.500	0.25	1.22	75	-10 to +85	0.75 x 0.75	990-240250-301	D09	
2.400 - 2.700	0.30	1.25	70	-10 to +75	0.75 x 0.75	094-039037-003	D03	5
3.300 - 3.800	0.30	1.22	50	-40 to +85	0.75 x 0.75	990-330380-301	D09	
3.475 - 3.600	0.35	1.22	50	-40 to +85	0.75 x 0.75	990-347360-301	D09	
3.700 - 3.900	0.35	1.25	50	-40 to +85	0.75 x 0.75	990-370390-301	D09	
4.400 - 5.100	0.40	1.28	20	-20 to +70	0.50 x 0.50	990-440510-203	D06	9
4.500 - 4.800	0.40	1.22	50	-30 to +70	0.75 x 0.75	994-039063-006	D03	5, 6
4.625 - 4.725	0.30	1.22	50	0 to +85	0.50 x 0.50	990-462472-201	D06	
5.150 - 5.825	0.40	1.14	50	-40 to +85	0.375 x 0.500	994-039052-009	D05	
5.200 - 5.900	0.35	1.20	50	-40 to +85	0.50 x 0.50	990-520590-203	D06	9
5.700 - 5.900	0.40	1.14	50	-40 to +85	0.375 x 0.500	990-570590-101	D05	
5.725 - 5.850	0.30	1.22	50	0 to +85	0.50 x 0.50	990-572582-201	D06	
5.800 - 6.700	0.40	1.25	25	-40 to +100	0.50 x 0.50	094-039042-004	D06	
5.800 - 7.100	0.40	1.25	50	-40 to +85	0.350 x 0.475	990-580710-901	D07	
7.100 - 7.900	0.50	1.25	25	-40 to +85	0.50 x 0.50	990-710790-201	D06	
13.500 - 14.500	0.40	1.18	10	-40 to +85	0.350 x 0.475	990-135145-901	D07	

NOTES

- 2: four mounting holes are 0.116 inches in diameter
- 3: four mounting holes are 0.110 inches in diameter
- 4: four mounting holes are 0.102 inches in diameter
- 5: four mounting holes are 0.094 inches in diameter
- 6: tab height is 0.075 inches
- 8: tab height is 0.150 inches
- 9: tab height is 0.120 inches
- 12: encapsulated for high peak power

* **Case Temperature Not To Exceed Operating Temperature**

+ **Power levels for higher frequency low power drop-in devices varies between 1 and 20 Watts**