

Bandpass Filter

RBP-275+

50Ω 268 to 282 MHz

Maximum Ratings

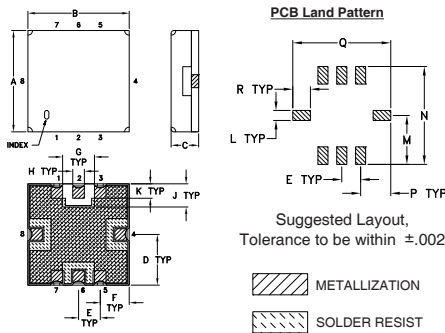
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W at 25°C

Permanent damage may occur if any of these limits are exceeded.

Pin Connections

RF IN	2
RF OUT	6
GROUND	1,3,4,5,7,8

Outline Drawing

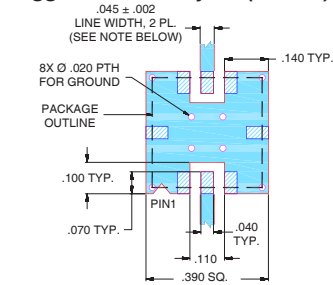


Outline Dimensions (inch/mm)

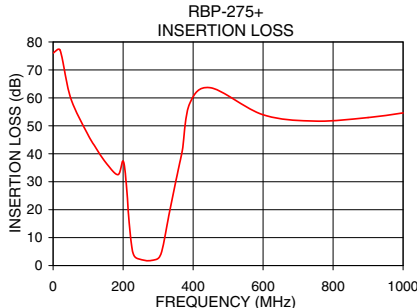
	A	B	C	D	E	F	G	H	J
	.350	.350	.100	.175	.075	.100	.110	.040	.080
	8.89	8.89	2.54	4.45	1.91	2.54	2.79	1.02	2.03
	K	L	M	N	P	Q	R	wt	
	.050	.040	.195	.390	.120	.390	.070	grams	
	1.27	1.02	4.95	9.91	3.05	9.91	1.78		

Note: Please refer to case style drawing for details

Demo Board MCL P/N: TB-332 Suggested PCB Layout (PL-176)



- TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS .025 ± .002; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
 - BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- Legend:
 DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
 DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK



Features

- linear phase, up to ±8deg typ. @ Fc ±30MHz
- good VSWR, 1.2:1 typ. @ passband
- small size 0.35" x 0.35"
- shielded case
- aqueous washable

Applications

- harmonic rejection
- transmitters / receivers



Generic photo used for illustration purposes only
CASE STYLE: GP731

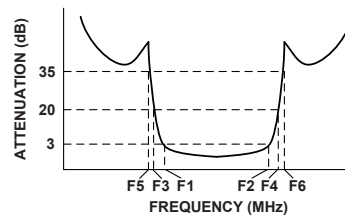
+RoHS Compliant
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Reel Size	Devices/Reel
7"	10, 20, 50, 100, 200
13"	500, 1000

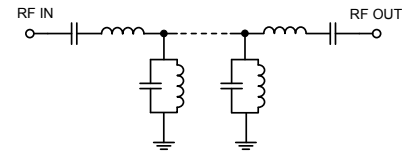
Bandpass Filter Electrical Specifications (T_{AMB} = 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 3dB)	STOPBANDS (MHz)				MAXIMUM DEVIATION FROM LINEAR PHASE (deg.)	VSWR (:1)	
		Loss > 20dB	Loss > 35dB	Passband	Stopband			
Fc	F1 - F2	F3	F4	F5	F6	Fc ± 30MHz	Max.	Typ.
275	268 - 282	209	350	120	370-1000	±15	1.7	18

Typical Frequency Response



Functional Schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Deviation from Linear Phase (deg.)
0.3	76.04	579.06	245.0	1.98
120.0	42.54	108.58	248.0	0.32
209.0	29.34	20.22	250.0	-0.44
220.0	11.85	7.94	254.0	-1.35
225.0	6.57	3.95	258.0	-1.58
245.0	2.29	1.77	260.0	-1.54
268.0	1.73	1.11	262.0	-1.36
270.0	1.73	1.07	268.0	-0.45
275.0	1.75	1.04	270.0	-0.07
280.0	1.82	1.16	275.0	0.94
282.0	1.85	1.21	280.0	1.86
305.0	3.31	1.38	282.0	2.16
320.0	10.72	6.32	286.0	2.58
330.0	17.48	12.99	290.0	2.57
350.0	29.80	27.59	294.0	1.78
370.0	41.72	41.37	296.0	0.95
450.0	63.62	72.39	300.0	-1.94
1000.0	54.60	69.49	305.0	-8.40

Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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