# Ceramic Low Pass Filter

### 50Ω

# DC<sup>(1)</sup> to 2600 MHz

#### **Maximum Ratings**

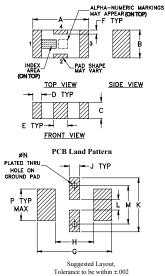
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	10W max. at 25°C

\* Passband rating, derate linearly to 3.5W at 100°C ambient. Permanent damage may occur if any of these limits are exceeded.

#### **Pin Connections**

RF IN	1
RF OUT	3
GROUND	2,4

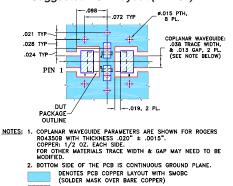
#### Outline Drawing



#### Outline Dimensions (inch)

В	С	D	E	F	G	
.063	.037	.020	.032	.009	.169	
1.60	0.94	0.51	0.81	0.23	4.29	
J	K	L	M	N	Р	wt
.024	.122	.024	.087	.012	.071	grams
0.61	3.10	0.61	2.21	0.30	1.80	.020
	.063 1.60 J .024	.063 .037 1.60 0.94 J K .024 .122	.063 .037 .020 1.60 0.94 0.51 J K L .024 .122 .024	.063 .037 .020 .032 1.60 0.94 0.51 0.81 J K L M .024 .122 .024 .087	.063 .037 .020 .032 .009 1.60 0.94 0.51 0.81 0.23 J K L M N .024 .122 .024 .087 .012	.063         .037         .020         .032         .009         .169           1.60         0.94         0.51         0.81         0.23         4.29           J         K         L         M         N         P           .024         .122         .024         .087         .012         .071

#### Demo Board MCL P/N: TB-270 Suggested PCB Layout (PL-137)



DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- excellent power handling, 10W
- small size
- 7 sections
- temperature stable
- LTCC construction
- protected by U.S. Patent 6,943,646

#### Applications

- harmonic rejection
- VHF/UHF transmitters/receivers
- lab use





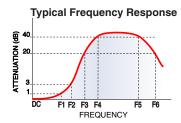
Generic photo used for illustration purposes only CASE STYLE: FV1206

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

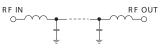


Electrical Specifications <sup>(1,2)</sup> at 25°C							
Pa	rameter	F#	Frequency (MHz)	Min.	Тур.	Max.	Unit
	Insertion Loss	DC-F1	DC-2600	—	_	1.2	dB
Pass Band	Freq. Cut-Off	F2	3125	—	3.0	—	dB
	VSWR	DC-F1	DC-2600	—	1.2	—	:1
		F3	3750	20	_	_	dB
Stop Band	Rejection Loss	F4-F5	3900-6600	—	30	—	dB
Stop Band		F6	8400	—	20	-	dB
	VSWB	E3-E6	3750-8400	_	20		•1

(1) In Applications where DC isolation to ground is required, coupling capacitors are recommended to avoid DC leakage. Alternatively, if DC pass IN-OUT is required, Mini-Circuits "D" suffix version of this model will support DC IN-OUT, and provide>100 MOhm isolation to ground. (2) Measured on Mini-Circuits Characterization Test Board TB-270.



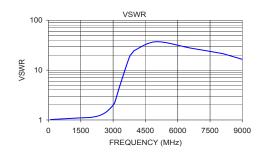
#### **Electrical Schematic**



#### Typical Performance Data at 25°C

	•	
Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
100.00	0.10	1.02
1300.00	0.39	1.09
2100.00	0.61	1.15
2600.00	0.94	1.37
3000.00	1.97	1.98
3125.00	3.02	2.60
3300.00	6.03	4.66
3750.00	22.35	17.93
3900.00	28.99	22.29
4000.00	33.27	24.83
5000.00	32.82	36.97
6600.00	32.00	27.59
8000.00	22.00	21.73
8400.00	20.08	19.54
9000.00	17.02	16.41





Notes
A. 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.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please wisit Mini-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp



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