

# Surface Mount Low Pass Filter

# SALF-865+ SALF-865

50Ω DC to 865 MHz

## Maximum Ratings

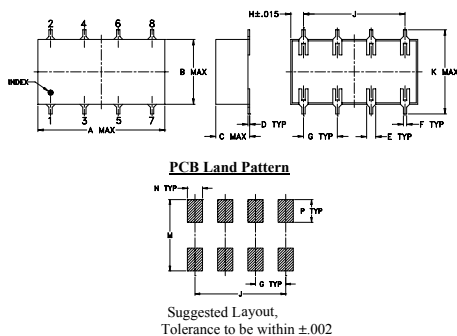
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input	0.5W max.

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

## Pin Connections

INPUT	1
OUTPUT	8
GROUND	2,3,4,5,6,7

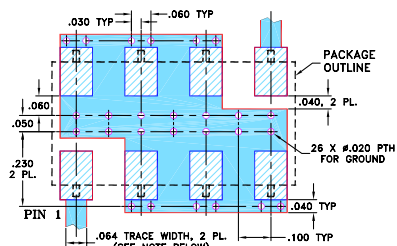
## Outline Drawing



## Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.75	.38	.20	.010	.050	.020	.200
19.05	9.65	5.08	0.25	1.27	0.51	5.08
H	J	K	M	N	P	wt
.075	.600	.450	.470	.100	.150	grams
1.91	15.24	11.43	11.94	2.54	3.81	1.6

## Demo Board MCL P/N: TB-187+ Suggested PCB Layout (PL-049)



- NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.  
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)  
■ DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

## Features

- 7-section elliptic function
- excellent rejection

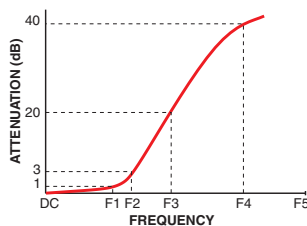
## Applications

- defense communications
- receivers/transmitters
- harmonic rejection of VCOs

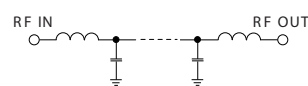
## Electrical Specifications

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Insertion Loss	DC-F1	DC-865	—	—	1.0	dB
	Freq. Cut-Off	F2	980	—	3.0	—	dB
	VSWR	DC-F1	DC-865	—	1.4	—	:1
Stop Band	Rejection Loss	F3-F4	1300-1400	20	—	—	dB
		F4-F5	1400-2550	35	—	—	dB
	VSWR	F3-F5	1300-2550	—	18	—	:1

## Typical Frequency Response

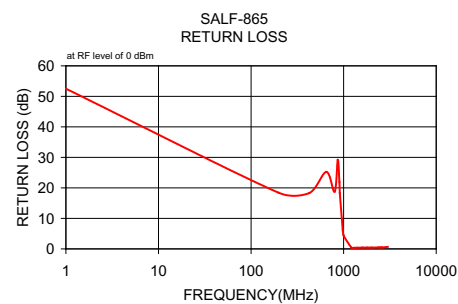
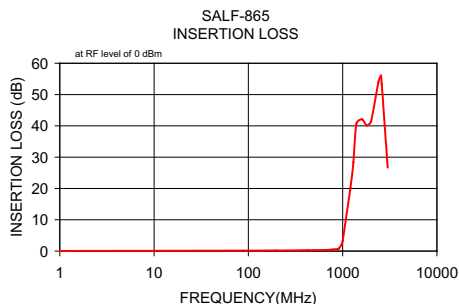


## Electrical Schematic



## Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)
	$\bar{x}$	$\sigma$	
1.00	0.02	0.00	52.50
200.00	0.19	0.01	18.38
425.00	0.28	0.01	18.30
650.00	0.35	0.00	25.24
800.00	0.52	0.01	18.75
865.00	0.54	0.01	29.17
900.00	0.66	0.04	21.87
910.00	0.75	0.06	18.31
980.00	2.19	0.25	6.10
1000.00	3.27	0.34	4.39
1210.00	20.21	0.60	0.48
1300.00	28.34	0.76	0.36
1400.00	40.68	1.67	0.37
1600.00	42.12	0.78	0.44
1800.00	40.14	0.36	0.43
2000.00	41.45	0.32	0.43
2400.00	53.98	1.66	0.49
2550.00	56.02	1.99	0.49
2600.00	53.42	1.94	0.47
3000.00	26.74	0.21	0.68



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