

Surface Mount Low Pass Filter

SALF-78+ SALF-78

50Ω DC to 78 MHz

Maximum Ratings

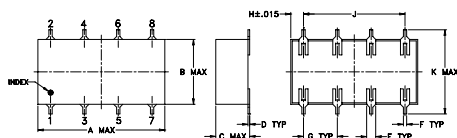
| | |
|-----------------------|----------------|
| Operating Temperature | -40°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| Power Input | 0.5W max. |

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

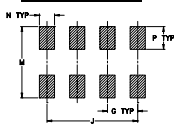
Pin Connections

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

Outline Drawing



PCB Land Pattern



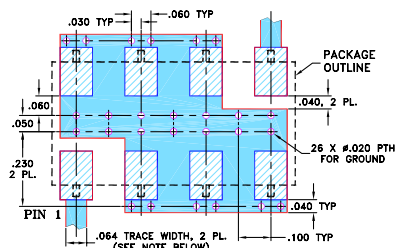
Suggested Layout,
Tolerance to be within ±002

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



CASE STYLE: YY101
PRICE: \$6.95 ea. QTY (1-9)

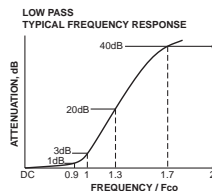
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

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

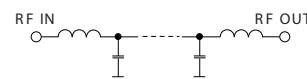
Low Pass Filter Electrical Specifications

| PASSBAND (MHz) | fco, (MHz) Nom. | STOPBAND (MHz) | | VSWR (:1) | |
|----------------|------------------|---------------------|---------------------|----------------|----------------|
| | | (loss > 20 dB) Min. | (loss > 40 dB) Min. | Pass band typ. | Stop band typ. |
| (loss < 1 dB) | (loss 3 dB) Typ. | | | | |
| DC-78 | 93 | 120-136 | 136-550 | 1.3 | 18 |

typical frequency response



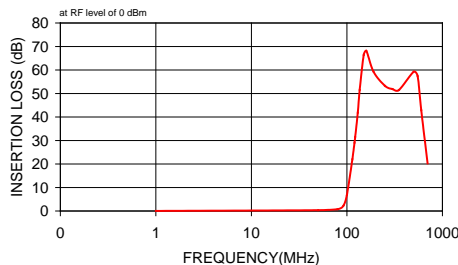
Electrical Schematic



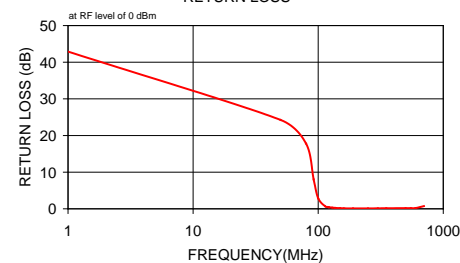
Typical Performance Data

| Frequency (MHz) | Insertion Loss (dB) | | Return Loss (dB) |
|-----------------|---------------------|----------|------------------|
| | \bar{x} | σ | |
| 1.00 | 0.04 | 0.01 | 42.90 |
| 50.00 | 0.33 | 0.01 | 24.26 |
| 80.00 | 0.77 | 0.03 | 17.79 |
| 92.00 | 2.28 | 0.12 | 8.01 |
| 100.00 | 6.90 | 0.30 | 2.87 |
| 114.00 | 21.99 | 0.42 | 0.67 |
| 120.00 | 29.06 | 0.48 | 0.47 |
| 122.00 | 31.44 | 0.51 | 0.42 |
| 130.00 | 41.87 | 0.78 | 0.31 |
| 136.00 | 51.54 | 1.40 | 0.25 |
| 150.00 | 66.41 | 3.36 | 0.18 |
| 160.00 | 68.12 | 2.07 | 0.14 |
| 190.00 | 59.27 | 0.50 | 0.12 |
| 250.00 | 53.27 | 0.32 | 0.12 |
| 300.00 | 51.89 | 0.33 | 0.14 |
| 350.00 | 51.47 | 0.35 | 0.15 |
| 500.00 | 59.23 | 1.06 | 0.18 |
| 550.00 | 57.42 | 1.70 | 0.19 |
| 600.00 | 42.90 | 0.84 | 0.20 |
| 700.00 | 20.29 | 1.10 | 0.74 |

SALF-78
INSERTION LOSS



SALF-78
RETURN LOSS



Mini-Circuits
ISO 9001 ISO 14001 AS 9100 CERTIFIED

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IF/RF MICROWAVE COMPONENTS

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