

# Low Pass Filter

50Ω Flat Time Delay DC to 65 MHz

### Maximum Ratings

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

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

### Pin Connections

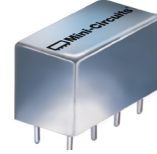
|             |             |
|-------------|-------------|
| INPUT       | 1           |
| OUTPUT      | 8           |
| GROUND      | 2,3,4,5,6,7 |
| CASE GROUND | 2,3,4,5,6,7 |

### Features

- flat group delay for low pulse distortion
- rugged shielded case, hermetic
- other PBLP models available with wide selection of cut-off frequencies

### Applications

- linear modulation techniques
- voice transmission applications
- digital communications



CASE STYLE: A01

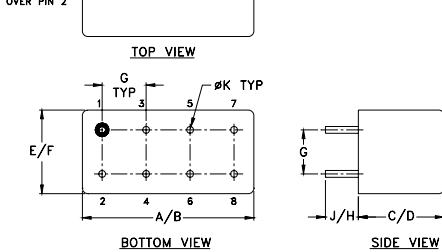
### +RoHS Compliant

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

### Low Pass Filter Electrical Specifications

| PASSBAND (MHz)<br>(loss <1.2 dB)<br>Min. | f <sub>co</sub> , MHz<br>Nom.<br>(loss 3 dB) | STOPBAND (MHz) |                | VSWR (:1)                  |                            | GROUP DELAY VARIATION (nsec) |                          |                             |
|--|--|----------------|----------------|----------------------------|----------------------------|------------------------------|--------------------------|-----------------------------|
|  |  | (loss > 10 dB) | (loss > 20 dB) | DC-0.2f <sub>co</sub><br>X | DC-0.6f <sub>co</sub><br>X | DC-f <sub>co</sub><br>X      | DC-2f <sub>co</sub><br>X | DC-2.67f <sub>co</sub><br>X |
| DC-65                                    | 117  | 234-312        | 312            | 1.3:1                      | 2.4:1                      | 0.35                         | 1.4                      | 1.9                         |

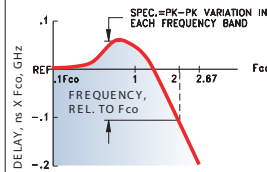
### Outline Drawing



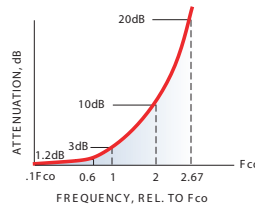
### Outline Dimensions (inch/mm)

| A     | B     | C    | D     | E     | F     |
|-------|-------|------|-------|-------|-------|
| .770  | .800  | .385 | .400  | .370  | .400  |
| 19.56 | 20.32 | 9.78 | 10.16 | 9.40  | 10.16 |
| G     | H     | J    | K     | wt    |       |
| .200  | .20   | .14  | .031  | grams |       |
| 5.08  | 5.08  | 3.56 | 0.79  | 5.2   |       |

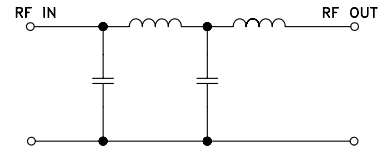
TYPICAL GROUP DELAY



TYPICAL FREQUENCY RESPONSE INSERTION LOSS

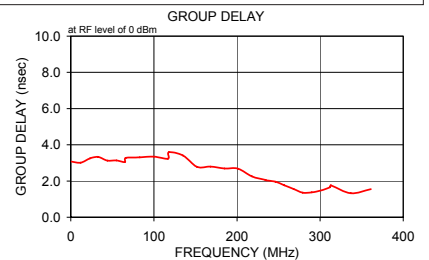
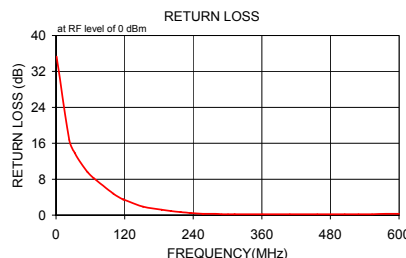
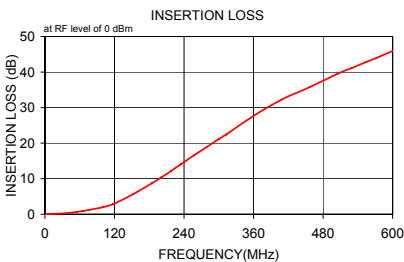


electrical schematic



### Typical Performance Data

| Frequency (MHz) | Insertion Loss (dB) |          | Return Loss (dB) | Frequency (MHz) | Group Delay (nsec) |
|-----------------|---------------------|----------|------------------|-----------------|--------------------|
|                 | $\bar{x}$           | $\sigma$ |                  |                 |                    |
| 1.0             | 0.02                | 0.1      | 35.3             | 1.0             | 3.075              |
| 23.0            | 0.15                | 0.1      | 16.8             | 12.0            | 3.015              |
| 33.0            | 0.26                | 0.1      | 13.8             | 23.0            | 3.252              |
| 44.0            | 0.42                | 0.1      | 11.5             | 33.0            | 3.331              |
| 55.0            | 0.65                | 0.1      | 9.6              | 44.0            | 3.126              |
| 65.0            | 0.90                | 0.1      | 8.3              | 55.0            | 3.140              |
| 66.0            | 0.92                | 0.1      | 8.2              | 65.0            | 3.044              |
| 100.0           | 1.96                | 0.1      | 4.8              | 66.0            | 3.271              |
| 117.0           | 2.80                | 0.1      | 3.5              | 83.0            | 3.303              |
| 118.0           | 2.86                | 0.1      | 3.5              | 100.0           | 3.348              |
| 152.0           | 5.63                | 0.1      | 1.9              | 117.0           | 3.233              |
| 185.0           | 8.79                | 0.2      | 1.2              | 118.0           | 3.593              |
| 201.0           | 10.40               | 0.2      | 0.9              | 135.0           | 3.409              |
| 218.0           | 12.20               | 0.2      | 0.7              | 152.0           | 2.782              |
| 234.0           | 13.99               | 0.2      | 0.5              | 168.0           | 2.798              |
| 235.0           | 14.10               | 0.2      | 0.5              | 185.0           | 2.689              |
| 257.0           | 16.54               | 0.3      | 0.3              | 201.0           | 2.681              |
| 279.0           | 18.92               | 0.4      | 0.3              | 218.0           | 2.252              |
| 290.0           | 20.08               | 0.5      | 0.2              | 234.0           | 2.060              |
| 301.0           | 21.23               | 0.5      | 0.2              | 235.0           | 2.038              |
| 312.0           | 22.36               | 0.6      | 0.2              | 246.0           | 1.965              |
| 313.0           | 22.46               | 0.6      | 0.2              | 257.0           | 1.759              |
| 361.0           | 27.82               | 0.7      | 0.2              | 268.0           | 1.562              |
| 409.0           | 32.27               | 0.9      | 0.2              | 279.0           | 1.358              |
| 457.0           | 35.79               | 1.0      | 0.2              | 290.0           | 1.372              |
| 505.0           | 39.52               | 1.3      | 0.2              | 301.0           | 1.483              |
| 529.0           | 41.10               | 1.4      | 0.2              | 312.0           | 1.659              |
| 553.0           | 42.74               | 1.6      | 0.2              | 313.0           | 1.765              |
| 577.0           | 44.30               | 1.5      | 0.3              | 337.0           | 1.324              |
| 600.0           | 45.95               | 2.0      | 0.3              | 361.0           | 1.555              |



### Notes

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