

Series of Microminiature Filters

◆ Features:

- Miniature Size — Maximum Performance
- Low Package Height (.24 inch)
- Ceramic or Lumped Component Chip and Wire Technology
- High Performance Applications
- Leaded Surface Mount Configuration

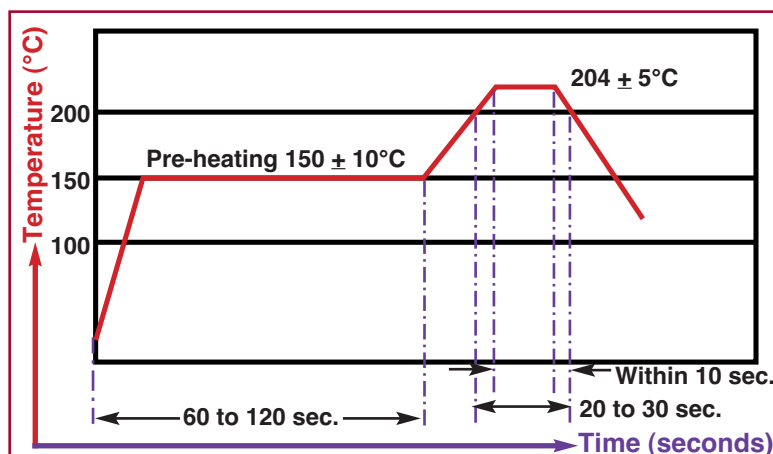


◆ Specifications:

Frequency Range	3 dB % BW	VSWR	Attenuation	Impedance (Ohms)	Number of Sections	Temperature	Packaging
20 MHz-3 GHz	2-20%*	1.5:1 Max	60 dBc	50	2-6*	-40 to +85°C (Operating) -50 to +110°C (Non-Operating)	See Outline Drawings
Vibration:		MIL-STD 202	204A				
Shock:		MIL-STD 202	213A				
Humidity:		MIL-STD 202	103B				
Thermal Shock:		MIL-STD 202	107A				
Solderability:		MIL-STD 202	Method 208				

- Contact factory for > 6 sections and > 20% bandwidth.

◆ Typical Reflow Profile / Installation Notes For Mini-Max, KeL-Fil and KeL-Com Products:



* The rate of heating and cooling must be controlled to preclude thermal cracking of the devices. Processes, heating or cooling, should not exceed a rate of 200°C per min. Spikes must not exceed 100°C max. for any solder operation. Avoid forced cooling or contact with heat sinks, such as conveyor belts, metal tables or cleaning solutions, before the units reach ambient temps.

* When handling K&L products, avoid touching any solderable surface with bare hands or other contaminants as solderability may be reduced.

* Filters are made of very durable materials. However, mishandling of the product (especially RF leads) will damage the device. Avoid forcing the product into place by any means.

* K&L products can be cleaned via solvent- based, aqueous, semi-aqueous, and alcohol- based systems. Be sure to completely dry the units; any entrapped moisture will cause erroneous electrical performance.

* A typical reflow profile is provided. When establishing a reflow procedure, be sure to consider the higher relative mass of components, as the units will take longer to achieve reflow temps.

* Take special care to ensure the input trace is not smaller than the RF trace on the filter. This will eliminate an impedance mismatch which would cause the filter to appear to have a high ripple content.

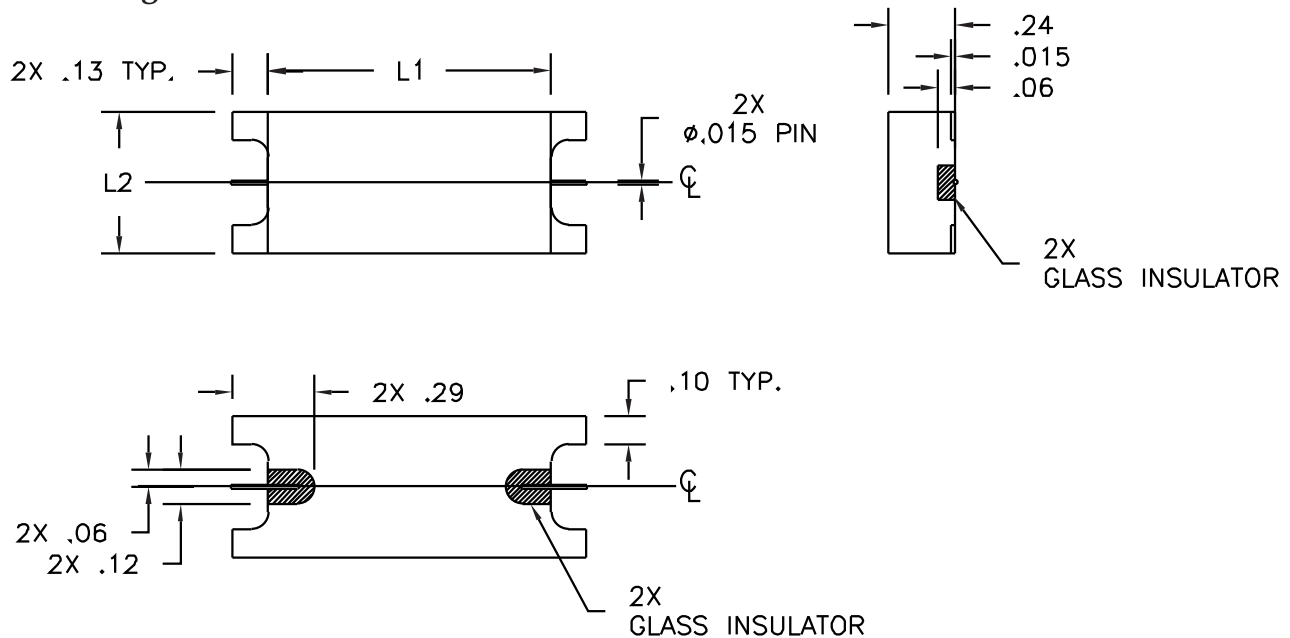
* All K&L ceramic filters are assembled using SN96 high temp. solder. K&L recommends that customers use SN60 or SN63, or an equivalent, during installation for signal and ground connections.

* Recommended procedure for hand soldering (Not recommended for Series 5 packages):

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Mini-Max®

◆ Outline Drawings:



L1	L2
1.00	.50
1.00	.75
1.50	.50
1.50	.75
2.00	.50
2.00	.75

SECTIONS	LENGTH
2-3	1.0"
4-5	1.5"
6	2.0"

◆ To Order:

3 MM B 7 - 1000 / U 50 - 1.1

1 2 3 4 5 6 7 8

1. Number of Sections
2. **Mini-Max**® Series
3. Filter Type
4. Package Width
5 = .5"
7 = .75"
5. Center Frequency in MHz
6. Supplemental Codes (see page 13)
7. Bandwidth in MHz
8. Current Version