

Miniature Solder-in Filters 9900 Series

These filters are ideal for microwave applications such as attenuators and oscillators, and perform well in high impedance circuits where large capacitance values are not practical.

Features

- Miniature size to allow effective use of space
- Standard capacitance values from 5pF to .033μF
- Voltage ratings to 200 VDC/115 VAC 0–400 Hz
- Hermetically sealed on one end allows for through-hole sealing between compartments
- High temperature construction meets MIL-F-28861 solderability and resistance to soldering heat requirements
- Available in MIL-C-11015 versions — see page CF10
- Gold plating compatible with gold bonding techniques

Marking C Circuit

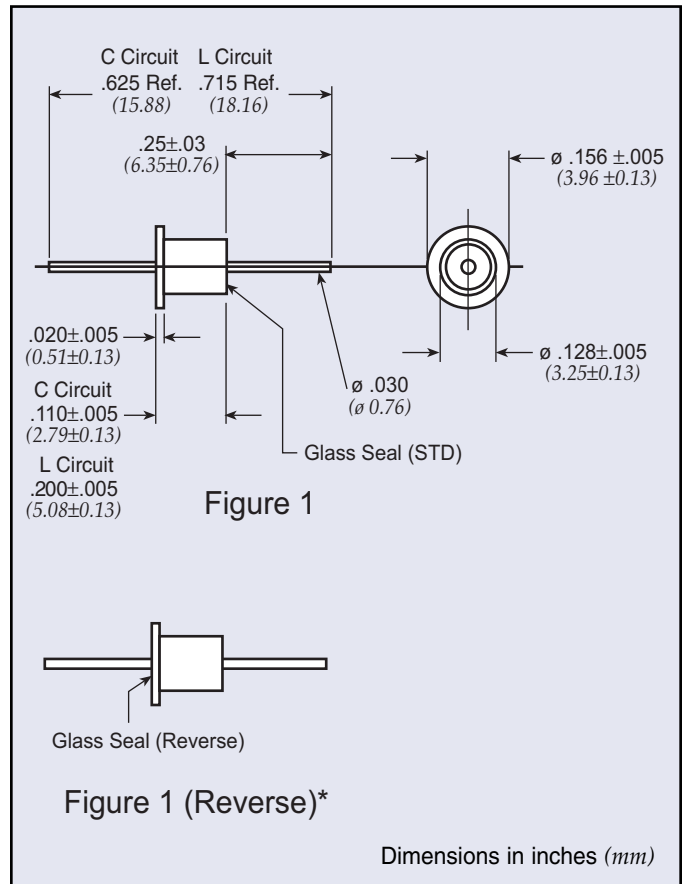
Color dot standard as follows:

- | | |
|-----------------------|-----------------------|
| ● 101 Green – 100pF | ● 272 Red – 2700pF |
| ● 501 Brown – 500pF | ● 502 Blue – 5000pF |
| ● 102 Purple – 1000pF | ● 153 Pink – 15000pF |
| ● 122 White – 1200pF | ● 000 None – 10pF max |

Marking L Circuit

Color dot standard as follows:

- | | |
|-----------------------|-----------------------|
| ● 100 Violet – 10pF | ● 103 2White – .01μF |
| ● 250 Blue – 25pF | ● 153 2White – .015μF |
| ● 102 White – 1000pF | ● 273 2Red – 27000pF |
| ● 152 White – 1500pF | ● 333 2Red – .033μF |
| ● 502 Yellow – 5000pF | |



Miniature Solder-in Filters 9900 Series

Miniature Solder-in C Circuit

Part Number*	Figure	Rated Voltage 125°C		I Amp	Min Cap	Minimum Insertion Loss (dB)						
		DC	AC			1 MHz	10 MHz	30 MHz	100 MHz	300 MHz	1 GHz	10 GHz
SCI-9900-153	1	50		5	0.015 µF	7	25	30	40	40	60	60
SCI-9900-303	1	50		5	0.030 µF	10	30	35	45	50	55	55
† SCI-9910-272	1	100		5	2700 pF	—	10	18	25	33	40	50
† SCI-9910-502	1	100		5	5000 pF	—	15	20	30	35	45	55
SCI-9900-000	1	200		5	4 pF max.	—	—	—	—	—	10	10
† SCI-9920-101	1	200	115	5	100 pF	—	—	—	3	10	20	28
† SCI-9920-501	1	200	115	5	500 pF	—	—	—	15	22	35	40
† SCI-9920-122	1	200	115	5	1200 pF	—	5	10	20	28	35	45

* For reverse glass seal add an "R" to the end of the part number (SCI-9900-153R).

† Also available through API's authorized distributors.

Parts are RoHS Compliant

Miniature Solder-in L Circuit

Part Number*	Figure	Rated Voltage 125°C		I Amp	Min Cap	Minimum Insertion Loss (dB)				
		DC	AC			1 MHz	10 MHz	100 MHz	1 GHz	10 GHz
SCI-9980-100	1	200		10	10 pF	—	—	—	7	20
SCI-9980-101	1	200		10	100 pF	—	—	5	22	35
SCI-9980-102	1	200		10	1000 pF	—	8	25	40	42
SCI-9980-103	1	200		10	.01 µF	8	27	48	65	65
SCI-9980-122	1	200		10	1200 pF	—	8	28	42	50
SCI-9980-152	1	200		10	1500 pF	—	10	28	43	53
SCI-9980-153	1	200		10	.015 µF	10	28	50	65	65
SCI-9980-250	1	200		10	25 pF	—	—	—	13	25
SCI-9980-272	1	200		10	2700 pF	8	13	32	45	55
SCI-9980-273	1	50		10	27,000 pF	13	33	53	75	75
SCI-9980-333	1	200		10	.033 µF	13	35	55	75	75
SCI-9980-501	1	200		10	500 pF	—	—	18	37	38
SCI-9980-502	1	200		10	5000 pF	8	17	35	47	55

* Reverse seal available. Add R at the end of the part number. (SCI-9980-102R).

Note: Hi-rel versions available. Add R after the first dash. (SCI-R9980-102).

Lt circuit part number series SCI-9981-XXX.

Parts are RoHS Compliant

Spec Mini-Press 9900 Series

This new knurled filter is designed to be pressed into place and create a reliable mechanical bond. This feature makes it an excellent selection for applications where soldering is undesirable. Suitable plating is available that allows gold bonding to the terminals.

Applications

These filters are ideal for microwave and RF applications such as attenuators, synthesizers, and oscillators. They perform well in high impedance circuits where large capacitance values are not practical.

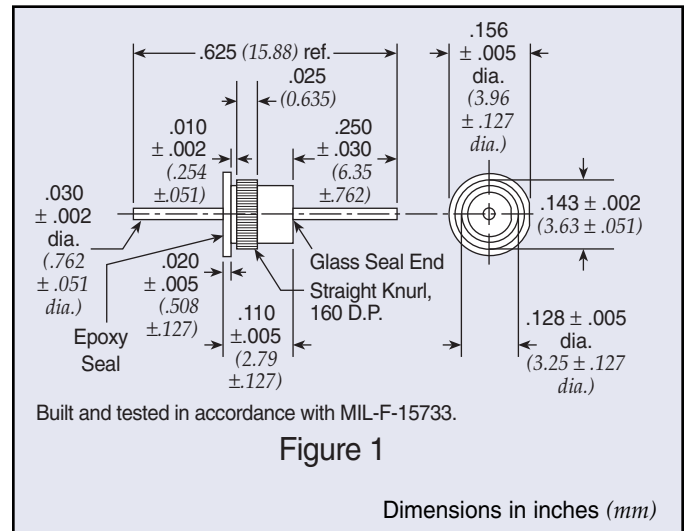
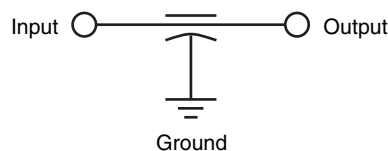
Installation

- .136" to .137" (3.45-3.48mm) diameter hole
- Hole must be free of all insulating materials.
- Installation tool must have a hole of sufficient depth and diameter to accept the terminal of the filter.
- Installation force must be applied gradually and smoothly until the flange of the filter is seated against the receiving part (request installation instructions).

Mechanical Specifications

- Installation* Press-in
Plating Gold
Seal Glass sealed on one end,
 resin sealed on the other end
Termination Options Plating suitable for gold
 bonding
Operating Temperature -55°C to +125°C

Circuit Schematic



Insertion Tool

Part Number: SCI-9925-200

Part Number	Figure	Rated Voltage 125°C		Cap	Minimum Insertion Loss (dB)						
		DC	I Amp		1 MHz	10 MHz	30 MHz	100 MHz	300 MHz	1 GHz	10 GHz
† SCI-9925-153	1	50	5	0.015 µF +100%/-0%	7	25	30	40	40	60	60
† SCI-9925-303	1	50	5	0.030 µF +100%/-0%	10	30	35	45	50	55	55
† SCI-9925-502	1	100	5	5000 pF +100%/-0%	—	15	20	30	35	45	55
† SCI-9925-000	1	200	5	10 pF max.	—	—	—	—	—	10	10
† SCI-9925-101	1	200	5	100 pF +100%/-0%	—	—	—	3	10	20	28
† SCI-9925-501	1	200	5	500 pF +100%/-0%	—	—	—	15	22	35	40
† SCI-9925-122	1	200	5	1200 pF +100%/-0%	—	5	10	20	28	35	45
SCI-9925-272	1	200	5	2700 pF +100%/-0%	—	10	18	25	33	40	50

† Also available through API's authorized distributors.
 Note: Parts are RoHS Compliant