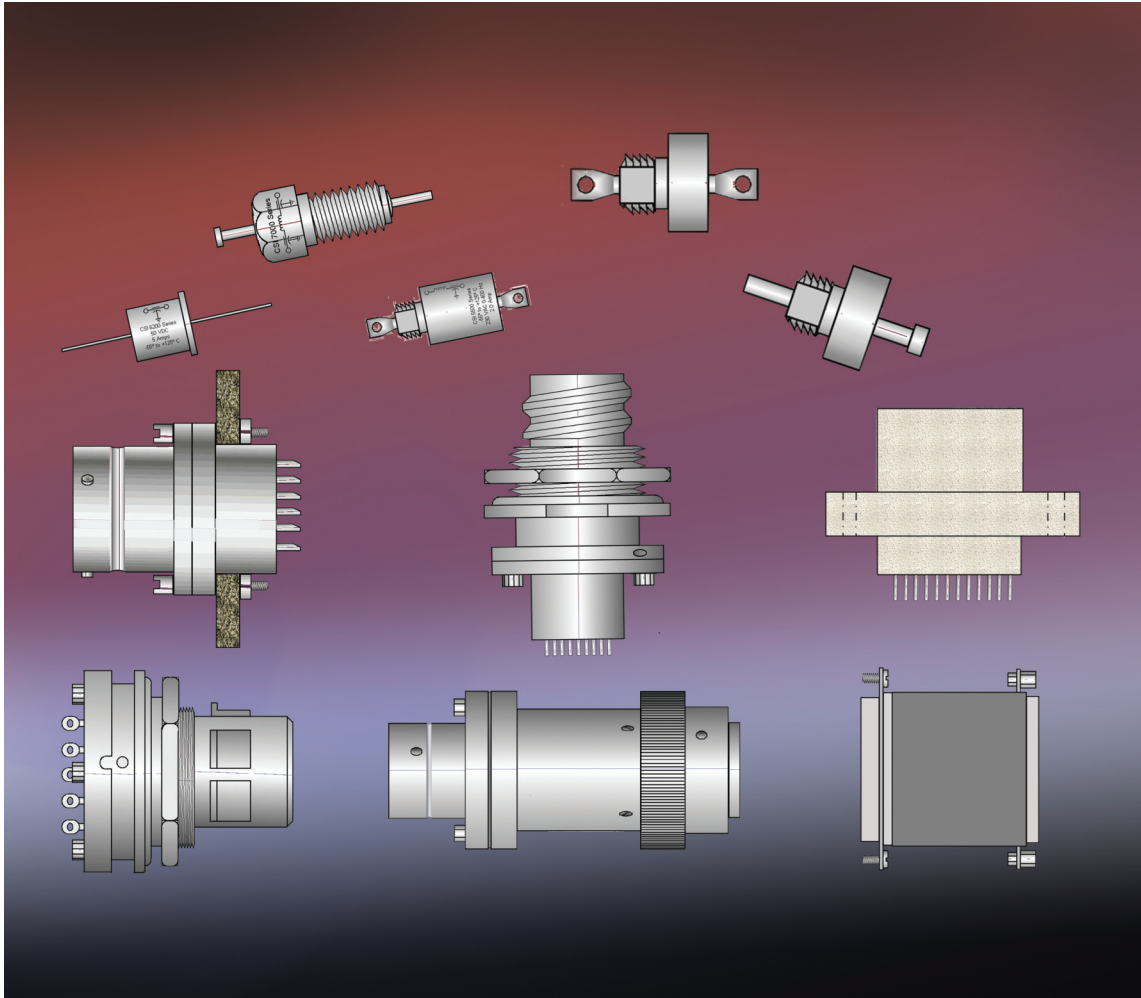
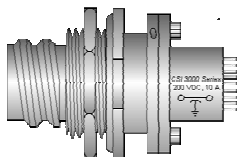


CUSTOM SUPPRESSION



- Solder-mount microwave filters (eyelet)
- Bolt style filter packages
- Filtered interconnect devices
- Broadband filters
- Feedthrough capacitors
- Ceramic filters

The CSI Family of EMC Problem Solvers



Engineering

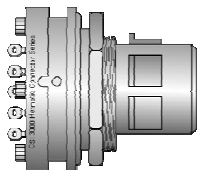
CSI provides design and problem solving services for your needs. Standard components and catalog filters are utilized wherever possible for the lowest installed cost. Modified and custom filters are supplied where required.

Service

Our engineering department will assist you in defining your filtering needs and subsequent filter selection and documentation.

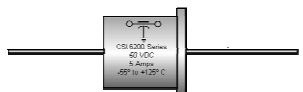
0300-FIC Series

FIC (Filtered Inter-Connect) devices. High reliability filter systems for connectors using the latest planar array technology. Available for a wide range of connector styles, capacitances, current and voltage ratings for all connector insert arrangements.



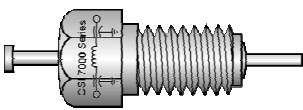
6000 Series

Solder-mount (eyelet) microwave filters that are hermetically sealed on one end for low installed cost.



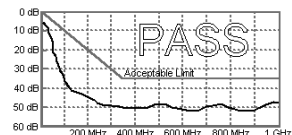
7000-8000 Series

Bolt style filter packaging for low cost and ease of installation. Stock in C, π , and L configurations. Hermetic units available.



4000-5000 Series

Hermetically-sealed QLP-style filters available in C, π , L, T, reverse-L and Multi-section configurations. Suited for 400 Hz AC applications.



Testing

All filters produced are of the highest quality and reliability. CSI produces MIL-F-15733 QLP EMI filters and offers screening to hi-rel specs.

CUSTOM SUPPRESSION



Table of Contents

Problem solving EMI & RFI at the leading edge	4	Feed-thru Filters 81xx / 82xx	19
Feed-through capacitors and filters	4	Feed-thru Filters 84xx / 85xx	20
Broadband Filters	4	Solder-in Eyelet Feed-thru Capacitors 6200 / 6210 / 6220 / 6230 / 6240	21
Custom "Black Box" Filter Assemblies	4	EMI Filtered Interconnect Series	22
EMP (Electromagnetic Pulse)	4	Cable Filter Adapter	23
CSI Suppression Modules for Cylindrical Connectors	5	Male to Female Filtered Connectors from 9-37 pint IAW MIL-C-24308, Commercial, Industrial or Military Styles	24
"Q" Level Quality Screening Sequence	5	Pi-Section Filter	25
Important Mounting and Installation Procedures	6	32-Feed-thru Capacitor Assembly	26
Miniature Ceramic EMI Filter General Specifications	7	3102A Filtered Connector	27
Environmental Specifications	7	0600-015A RF Filter Assembly Board	28
L-Section Filters 4000 / 4001 / 4200 / 4201	8	37 Pin D-Sub Female Filtered Connector	29
Miniature Ceramic Feed-thru Filters 4020 / 4120 / 4220	9	9 Pin D-Sub Filtered Connector, Pi Circuit	30
L-Section Filters 4000	10	25 Pin D-Sub Filtered Connector, Pi Circuit	31
L-Section Filters 4100 / 4200	11	EMI / RFI Filter Chamber	32
Pi-Section Filters 4010	12	EMI Filter, Feed-thru Hermetic (4020-145A)	33
Pi-Section Filters 4110 / 4210	13	EMI Filter, Feed-thru Hermetic (4020-405A)	34
T-Section Filters 4030 / 4130	14	EMI Filter, Feed-thru Hermetic, 5 poles 4030-014A	35
T-Section Filters 4230 / 4330	15	EMI Filter, Feed-thru Hermetic, 5 poles 4030-015	36
L-Section Filters 5000 / 5100	16	EMI Filter, Feed-thru Hermetic, 5 poles 4030-025	37
L-Section Filters 5200	17	Filter, RFI 4100-016	38
Miniature Ceramic Feed-thru EMI Filters & Capacitors 7110 / 7112 / 7220 / 7410 / 7420 / 7510 / 7520	18	Feed-thru Capacitor 6210-333A	39



Problem solving EMI & RFI at the leading edge

As a manufacturer in Application Specific Intelligent Connectors (ASIC), filter pin connectors, EMI/RFI ceramic filters and feed-through capacitors, Custom Suppression offers a unique combination of technologies to solve industry's electromagnetic and radio interference problems.

Our abilities to respond to our customers' needs is enhanced by our CAD-CAM system and proprietary EMC/RF insertion loss filter performance design and simulation programs.

Put our extensive experience in consulting, servicing and manufacturing of custom and built-to-spec EMI, RFI and EMP suppression hardware and technology to work for you.

Feed-through capacitors and filters (custom and standard values, threaded cases)

CSI feed-through capacitors and filters are available in 4-40, 8-32, 5/16-24 and 12-32 thread sizes. Also available are solder-mount gold plated microwave feedthrough capacitors, all with voltage ratings of 50-200 VDC and current ratings of up to 15 amps.

Broadband Filters (Low Pass)

CSI offers a full line of hermetically sealed, low-pass filters, commercial and QPL. Voltage ratings are 50-300 VDC and 124 VAC 0-400 Hz. Current ratings are from 0.1 through 30 Amp. Current ratings are L, Pi, Tee and multi-section. Custom L, Pi, Tee, and multisection or double L-section filters are available on request.

Custom "Black Box" Filter Assemblies

CSI will design and build to your "black box" filter specifications. Contact our engineering department with your requirements.

EMP (Electromagnetic Pulse)

CSI will incorporate suppression devices in most filter products to address EMP dangers.

CSI Suppression Modules for Cylindrical Connectors

CSI features a full line of modules for use with cylindrical connectors. These suppression modules offer the versatility of mounting either directly behind the connector or on the inside of the enclosure.

Within the suppression module, circular capacitor arrays with ferrite elements provide feed-through multi-section filtering characteristics per pin. The reactive arrays are metallurgical soldered in place in the adapter assemblies. Grounding, isolation and shielding integrity of the filter are implemented at the array/adapter interface providing improved insertion losses in the VHF / UHF frequency ranges.

A special ceramic/metallic-compatible semi-rigid epoxy is bonded to both sides of the capacitor array and ferrite elements. This coating is also applied to both sides of the adapter to provide optimum mechanical and environmental protection. All suppression modules are delivered completely tested and protectively packaged.

Numerous size and pin arrangements are available. Voltages range from 50-500 VDC with capacitance ranges from 10 pf to 1.0 μ f, depending on the size and number of contacts. Please speak with our engineering department for further information regarding customizing suppression modules for your specific requirements.

"Q" Level Quality Screening Sequence

Since the early years of the filter industry, the "Q" Level quality screening technique has been very effective in eliminating both infant mortalities and long-term latent failures. When ordering, to specify "Q"-Level screening, simply add "Q" to the part number (ex: Q4010-020). Testing is 100% unless otherwise specified and summary data is provide for all tests.

Testing includes the following:

1. **Visual Inspection:** Prior to encapsulation, components are inspected at 7X magnification for proper solder joints, contamination, voids or cracks in the ceramic capacitor elements, loose solder and proper alignment of all components. Inspection will verify that the materials, design, construction, physical dimensions and workmanship are all in accordance with applicable requirements.
2. **Thermal Shock:** Five cycles from -55° to +125° C, in accordance with MIL-STD-202, Method 107D, Condition A.
3. **Burn-In:** 100 hours at 1.4X rated DC voltage at 125° C.
4. **Seal Test:** MIL-STD-202, Method 112, Condition A (does not apply to resin sealed units).

“Q” Level Quality Screening Sequence – cont.

5. **Capacitance and Dissipation Factor:** MIL-STD-202, Method 305, Frequency 1 kHz.
6. **Dielectric Withstanding Voltage:** Two and a half times (2.5X) the rated DC voltage for 5 ± 1 seconds @ 25° C with 50 mA (maximum) charging current.
7. **Insulation Resistance:** MIL-STD-202, Method 302, 125° C at rated DC voltage (maximum charging time) and at room temperature (25° C). The 125° C requirement will be within 10% of the 25° C requirement.
8. **DC Resistance:** MIL-STD-202, Method 303, per requirement.
9. **Insertion Loss Check Test:** 3 pieces or 10% of lot, whichever is greater. In accordance with MIL-STD-220 at full rated load.
10. **Visual Mechanical:** In accordance with MIL-F-15733.
11. **Marking:** All filters which have successfully completed “Q” Level screening sequence will be marked with a “Q” preceding the part number (ex: Q4010-020).

Important Mounting and Installation Procedures

To avoid damage during the installation of the filters, it is necessary to take the following precautions to protect them from excessive heat or mechanical stress.

- Heat sinks should always be used when attaching leads.
- In addition to using heat sinks, care should be utilized when applying heat to the filter terminals. The soldering iron tip should not exceed 200° C. We recommend SN62 or 60/40 solder to attach leads. On epoxy filled filters and feed-through capacitors, if solder appears to flow up from the lead and into the epoxy junction, then the internal, high-temperature solder has reflowed. The typical contact time for the soldering iron to the lead of the filter should be no more than 5 to 10 seconds.
- Mounting hardware is supplied on all filters. Always use a torque wrench and do not exceed the recommended mounting torque.
- Do not apply excessive force (pliers, wrenches, etc) to the filter cases. This may result in cracking the ceramic capacitor.

Important Mounting and Installation Procedures – cont.

- Insure that the filter is properly grounded to create an effective path for the interference.

Miniature Ceramic EMI Filter General Specifications

Our L-Section, Pi-Section and Multi-Section Filters and Feed-through Capacitors all meet or exceed all applicable requirements stated in MIL-F-15733, including:

- **Dielectric Withstanding:** Two and a half times (2.5X) the rated DC voltage for 5±1 seconds at 25° C with 50 mA maximum charging current.
- **Insulation Resistance:** Greater than 1,000 MΩ at the minimum rated DC voltage with two minutes maximum charging time.
- **Operating Temperature Range:** All filters enclosed in this specification are designed to operate over the temperature range of -55° to +125° C.
- **Plating:** Corrosion resistant per MIL-F-15733. Tin plating per MIL-T-10727 is standard; other platings are available.

- **Marking:** CSI, CSI part number and date code. (Voltage and schematic when size permits.) Special marking are also available.

Environmental Specifications

Filters shall meet the following electrical and performance specifications per MIL-STD-202:

Test	Method	Condition
Salt spray	101	A
Thermal shock	107	A (125° C)
Immersion cycling ³	104	A
Barometric pressure	105	C
Moisture resistance ^{1,3}	106	– Life ² 108 D
Seal ³	112	A
Shock	213	A
Vibration	204	D
Resistance to solder heat	210	B

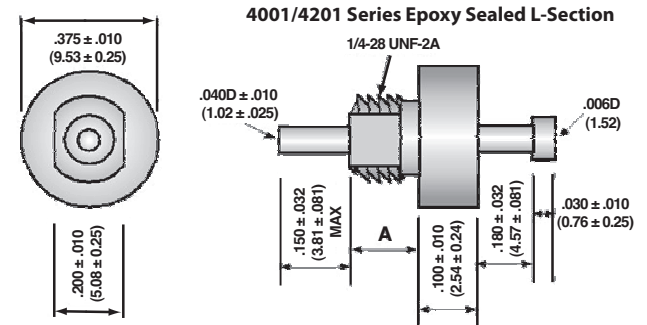
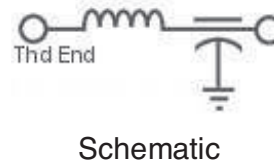
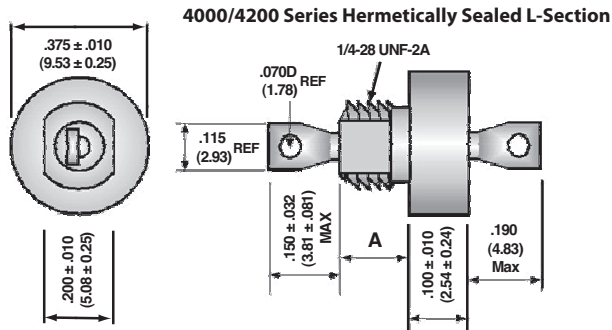
¹ 50 V polarizing voltage

² 140% rated voltage at 125° C

³ 4000 series only

L-Section Filters

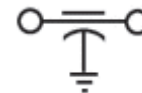
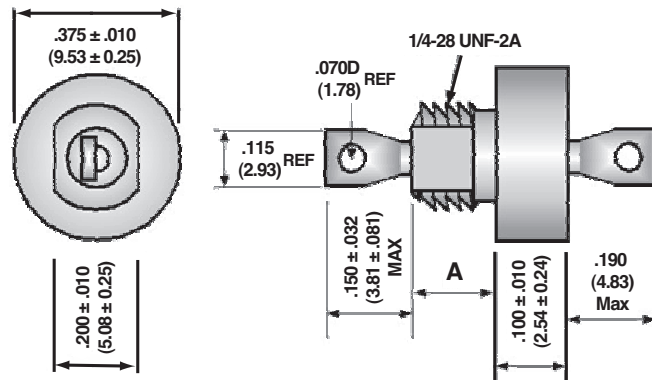
4000 / 4001 / 4200 / 4201



Part No		Min Cap μf	Working Voltage	Minimum Insertion Loss (dB)						Max DCR (ohms)	Rated DC Current
A = .187	A = .312			30 kHz	150 kHz	300 kHz	1 MHz	10 MHz	1 GHz		
4000-110	4000-120	1.4	50 VDC	15	28	33	44	60	70	0.003	15 Amp
4001-110	4001-120										
4200-110	4200-120	.15	50 VDC	—	8	14	25	45	70	0.003	15 Amp
4201-110	4201-120										

Drawings may not be to scale; refer to dimensions.

Miniature Ceramic Feed-thru Filters 4020 / 4120 / 4220



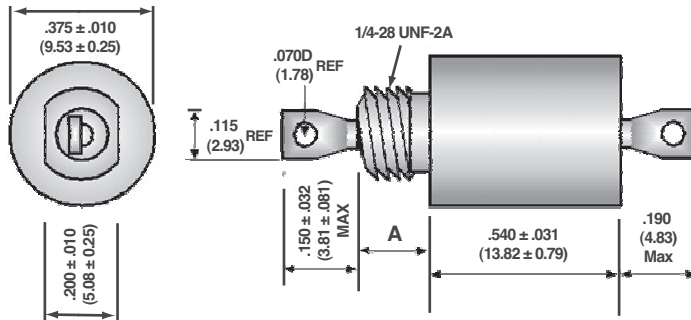
Schematic

Part No		Min Cap μ f	Working Voltage	Minimum Insertion Loss (dB)					Max DCR (ohms)	Rated DC Current
A = .187	A = .312			1 MHz	10 MHz	100 MHz	1 GHz	10 GHz		
4020-103	4020X103	.01	50 VDC	—	20	38	50	55	.006	15 Amp
4020-504	4020X504	.50		35	42	60	70	70		
4020-754	4020X754	.75		37	45	60	70	70		
4020-145	4020X145	1.4	100 VDC	40	50	70	70	70		
4120-103	4120X103	.01		—	20	38	50	55		
4120-504	4120X504	.50		35	42	60	70	70		
4120-105	4120X105	1.0	200 VDC	40	48	60	70	70		
4220-103	4220X103	.01		—	20	38	50	55		
4220-503	4220X503	.05		15	35	45	70	70		
4220-154	4220X154	.15		24	40	50	70	70		

Drawings may not be to scale; refer to dimensions.

L-Section Filters

4000 / 4100 / 4200



Schematic *

* For a reverse configuration with the inductive element opposite the thread end, add an "R" suffix to the part number; i.e., 4200-010R

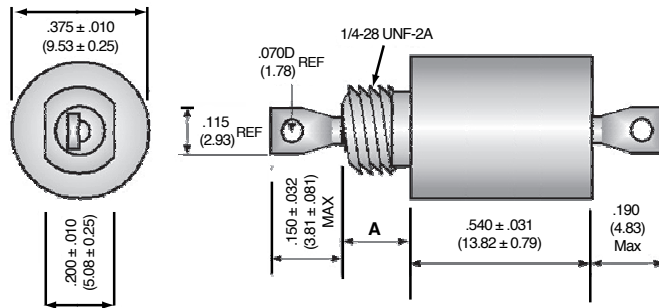


Part No		Min Cap μf	Working Voltage	Minimum Insertion Loss (dB)						Max DCR (ohms)	Rated DC Current
A = .187	A = .312			30 kHz	150 kHz	300 kHz	1 MHz	10 MHz	1 GHz		
Series 4000-XXX											
4000-010	4000-020	—	50 VDC	34	62	70	70	70	70	10	.10
4000-011	4000-021	—		25	53	65	70	70	70	4	.25
4000-012	4000-022	—		16	41	54	70	70	70	1	.50
4000-013	4000-023	—		15	31	42	63	70	70	.25	1.0
4000-014	4000-024	—		15	28	35	51	70	70	.063	2.0
4000-015	4000-025	—		15	28	34	45	70	70	.027	3.0
4000-016	4000-026	—		15	28	34	44	52	70	.003	10.0

Drawings may not be to scale; refer to dimensions.

L-Section Filters

4000 / 4100 / 4200



Schematic *

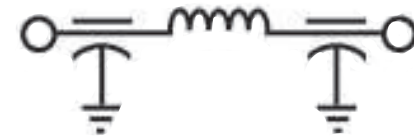
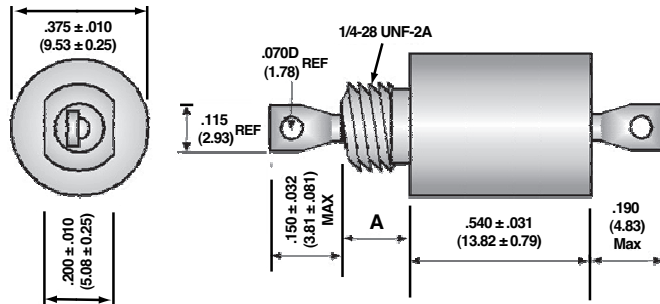
* For a reverse configuration with the inductive element opposite the thread end, add an "R" suffix to the part number; i.e., 4200-010R

Part No		Min Cap µf	Working Voltage	Minimum Insertion Loss (dB)						Max DCR (ohms)	Rated DC Current
A = .187	A = .312			30 kHz	150 kHz	300 kHz	1 MHz	10 MHz	1 GHz		
Series 4100-XXX											
4100-010	4100-020	—	100 VDC	34	62	70	70	70	70	10	.10
4100-011	4100-021	—		25	53	65	70	70	70	4	.25
4100-012	4100-022	—		16	41	54	70	70	70	1	.50
4100-013	4100-023	—		16	31	42	63	70	70	.25	1.0
4100-014	4100-024	—		16	28	35	51	70	70	.063	2.0
4100-015	4100-025	—		16	28	34	45	70	70	.027	3.0
4100-016	4100-026	—		16	28	34	44	52	70	.003	10.0
Series 4200-XXX											
4200-010	4200-020	—	250 VDC	14	42	54	70	70	70	10	.10
4200-011	4200-021	—		6	32	44	65	70	70	4	.25
4200-012	4200-022	—		—	23	35	56	70	70	1	.50
4200-013	4200-023	—		—	10	21	41	70	70	.25	1.0
4200-014	4200-024	—		—	8	14	30	70	70	.063	2.0
4200-015	4200-025	—		—	8	14	26	64	70	.027	3.0
4200-016	4200-026	—		—	8	14	25	45	70	.003	10.0

Drawings may not be to scale; refer to dimensions.

Pi-Section Filters

4010 / 4110 / 4210



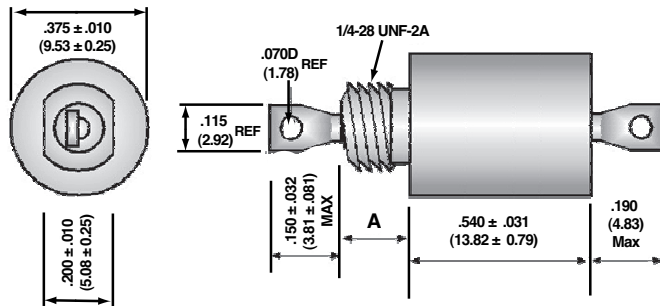
Schematic

Part No		Min Cap μf	Working Voltage	Minimum Insertion Loss (dB)						Max DCR (ohms)	Rated DC Current
A = .187	A = .312			30 kHz	150 kHz	300 kHz	1 MHz	10 MHz	1 GHz		
Series 4010-XXX											
4010-010	4010-020	—	50 VDC	44	70	70	70	70	70	10	.10
4010-011	4010-021	—		36	70	70	70	70	70	4	.25
4010-012	4010-022	—		24	66	70	70	70	70	1	.50
4010-013	4010-023	—		15	54	70	70	70	70	.25	1.0
4010-014	4010-024	—		15	40	60	70	70	70	.063	2.0
4010-015	4010-025	—		15	30	50	70	70	70	.027	3.0
4010-016	4010-026	—		15	28	34	40	52	70	.003	10.0

Drawings may not be to scale; refer to dimensions.

Pi-Section Filters

4010 / 4110 / 4210



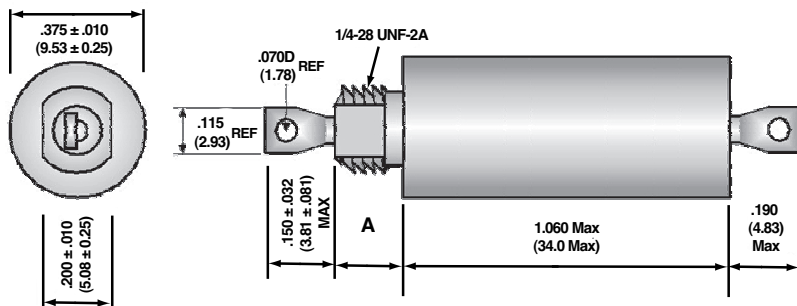
Schematic

Part No		Min Cap μf	Working Voltage	Minimum Insertion Loss (dB)						Max DCR (ohms)	Rated DC Current
A = .187	A = .312			30 kHz	150 kHz	300 kHz	1 MHz	10 MHz	1 GHz		
Series 4110-XXX											
4110-010	4110-020	—	100 VDC	40	70	70	70	70	70	10	.10
4110-011	4110-021	—		28	70	70	70	70	70	4	.25
4110-012	4110-022	—		18	60	70	70	70	70	1	.50
4110-013	4110-023	—		10	49	64	70	70	70	.25	1.0
4110-014	4110-024	—		9	36	53	70	70	70	.063	2.0
4110-015	4110-025	—		9	30	25	45	70	70	.027	3.0
4110-016	4110-026	—		9	24	19 (?)	40	70	70	.003	10.0
Series 4210-XXX											
4210-010	4210-020	—	250 VDC	21	60	70	70	70	70	10	.10
4210-011	4210-021	—		8	50	66	70	70	70	4	.25
4210-012	4210-022	—		—	40	56	70	70	70	1	.50
4210-013	4210-023	—		—	23	43	70	70	70	.25	1.0
4210-014	4210-024	—		—	18	33	63	70	70	.063	2.0
4210-015	4210-025	—		—	14	25	54	70	70	.027	3.0
4210-016	4210-026	—		—	14	20	30	70	70	.003	10.0

Drawings may not be to scale; refer to dimensions.

T-Section Filters

4030 / 4130 / 4230 / 4330



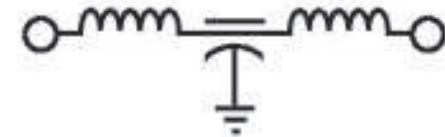
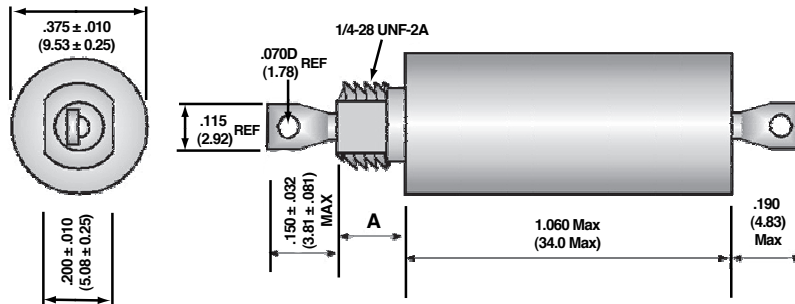
Schematic

Part No.		Working Voltage	Minimum Insertion Loss (dB)								Max DCR (ohms) @ 25° C	Rated DC Current
A=.187	A=.312		10 kHz	14 kHz	30 kHz	150 kHz	300 kHz	500 kHz	1 MHz	10 MHz – 1 GHz		
Series 4030-XXX												
4030-010	4030-020	50 VDC Multi-Section	30	50	70	70	70	70	70	80	12	.25
4030-011	4030-021		—	20	53	65	70	70	70	80	3	.50
4030-012	4030-022		—	—	20	55	70	70	70	80	.75	1.0
4030-013	4030-023		—	—	—	42	62	70	70	80	.189	2.0
4030-014	4030-024		—	—	—	33	54	70	70	80	.081	3.0
4030-015	4030-025		7	9	15	29	35	39	42	70	.006	10.0
Series 4130-XXX												
4130-010	4130-020	100 VDC Multi-Section	15	39	70	70	70	70	70	80	12	.25
4130-011	4130-021		—	11	47	70	70	70	70	80	3	.50
4130-012	4130-022		—	—	12	52	70	70	70	80	.75	1.0
4130-013	4130-023		—	—	—	33	56	70	70	80	.189	2.0
4130-014	4130-024		—	—	—	24	54	70	70	80	.081	3.0
4130-015	4130-025		4	6	12	25	32	36	42	70	.006	10.0

Drawings may not be to scale; refer to dimensions.

T-Section Filters

4030 / 4130 / 4230 / 4330



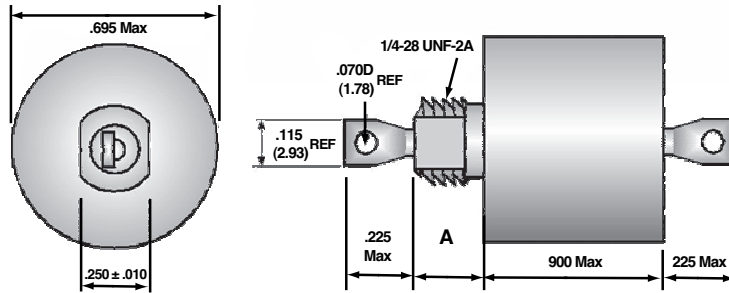
Schematic

Part No.		Working Voltage	Minimum Insertion Loss (dB)								Max DCR (ohms) @ 25° C	Rated DC Current (Amps)
A=.187	A=.312		10 kHz	14 kHz	30 kHz	150 kHz	300 kHz	500 kHz	1 MHz	10 MHz – 1 GHz		
Series 4230-XXX												
4230-010	4230-020	200 VDC Multi-Section	—	10	53	70	70	70	70	80	12	.25
4230-011	4230-021		—	—	17	66	70	70	70	80	3	.50
4230-012	4230-022		—	—	—	32	59	70	70	80	.75	1.0
4230-013	4230-023		—	—	—	6	34	55	70	70	.189	2.0
4230-014	4230-024		—	—	—	3	22	42	70	70	.081	3.0
4230-015	4230-025		—	—	5	14	21	26	34	55	.006	10.0
Series 4330-XXX												
4330-010	4330-020	300 VDC Multi-Section 125 VAC 0-400 Hz	—	—	11	55	70	70	70	70	10	.25
4330-011	4330-021		—	—	—	35	50	60	70	70	3	.50
4330-012	4330-022		—	—	—	12	30	40	70	70	.50	1.0
4330-013	4330-023		—	—	—	10	15	30	60	70	.15	2.0
4330-014	4330-024		—	—	—	10	15	25	50	70	.06	3.0
4330-015	4330-025		—	—	—	10	15	20	25	60	.01	10.0

Drawings may not be to scale; refer to dimensions.

L-Section Filters

5000 / 5100 / 5200



Schematic *

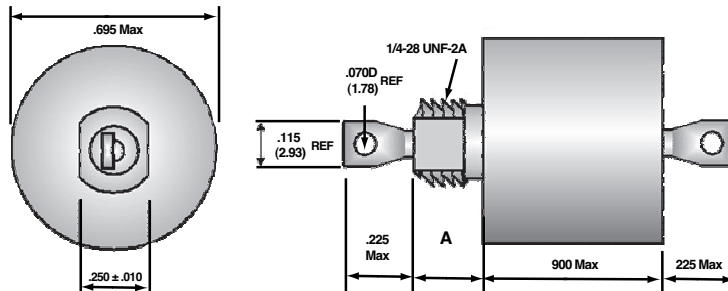
* For a reverse configuration with the inductive element opposite the thread end, add an "R" suffix to the part number; i.e., 5200-010R

Part No		Min Cap μf	Working Voltage	Minimum Insertion Loss (dB)						Max DCR (ohms)	Rated DC Current
A = .187	A = .312			30 kHz	150 kHz	300 kHz	1 MHz	10 MHz	1 GHz		
Series 5000-XXX											
5000-010	5000-020	—	50 VDC	34	62	70	70	70	70	10	.10
5000-011	5000-021	—		25	53	65	70	70	70	4	.25
5000-012	5000-022	—		16	41	54	70	70	70	1	.50
5000-013	5000-023	—		15	31	42	63	70	70	.25	1.0
5000-014	5000-024	—		15	28	35	51	70	70	.063	2.0
5000-015	5000-025	—		15	28	34	45	70	70	.027	3.0
5000-016	5000-026	—		15	28	34	44	52	70	.003	10.0
Series 5100-XXX											
5100-010	5100-020	—	100 VDC	34	62	70	70	70	70	10	.10
5100-011	5100-021	—		25	53	65	70	70	70	4	.25
5100-012	5100-022	—		16	41	54	70	70	70	1	.50
5100-013	5100-023	—		16	31	42	63	70	70	.25	1.0
5100-014	5100-024	—		16	28	35	51	70	70	.063	2.0
5100-015	5100-025	—		16	28	34	45	70	70	.027	3.0
5100-016	5100-026	—		16	28	34	44	52	70	.003	10.0

Drawings may not be to scale; refer to dimensions.

L-Section Filters

5000 / 5100 / 5200



Schematic *

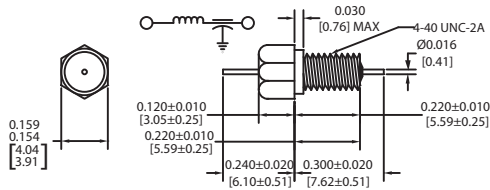
* For a reverse configuration with the inductive element opposite the thread end, add an "R" suffix to the part number; i.e., 5200-010R

Part No		Min Cap μf	Working Voltage	Minimum Insertion Loss (dB)							Max DCR (ohms)	Rated DC Current
A = .187	A = .312			30 kHz	150 kHz	300 kHz	1 MHz	10 MHz	1 GHz			
Series 5200-XXX												
5200-010	5200-020	—	200 VDC	14	42	54	70	70	70	10	.10	
5200-011	5200-021	—		6	32	44	65	70	70	4	.25	
5200-012	5200-022	—		—	23	35	56	70	70	1	.50	
5200-013	5200-023	—		—	10	21	41	70	70	.25	1.0	
5200-014	5200-024	—		—	8	14	30	70	70	.063	2.0	
5200-015	5200-025	—		—	8	14	26	64	70	.027	3.0	
5200-016	5200-026	—		—	8	14	25	45	70	.003	10.0	

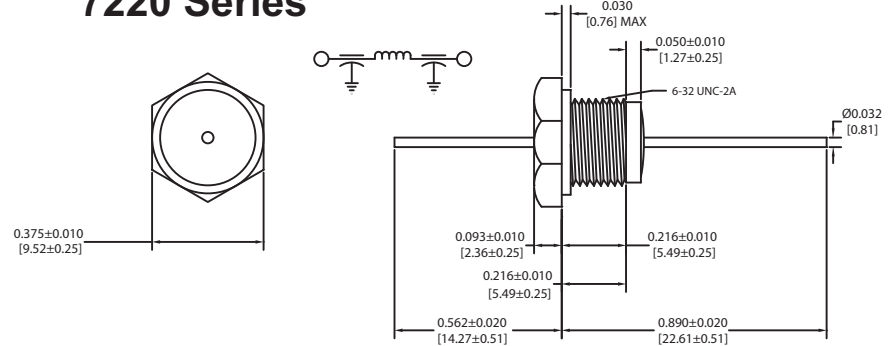
Drawings may not be to scale; refer to dimensions.

Miniature Ceramic Feed-thru EMI Filters and Capacitors – Ref: Mil-F-15733

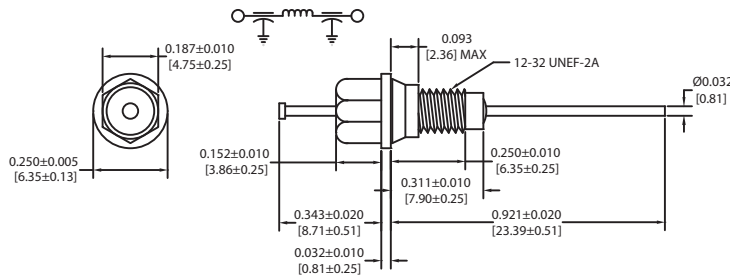
7110/7112 Series



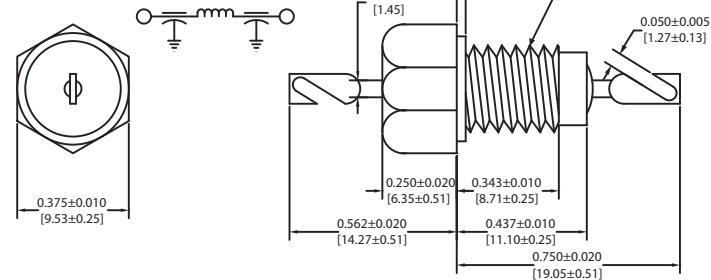
7220 Series



7410/7420 Series



7510/7520 Series



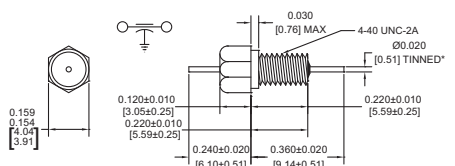
Part No	Min Cap µf	Working Voltage	Minimum Insertion Loss (dB)					Max DCR (ohms)	Rated DC Current
			1 MHz	10 MHz	100 MHz	200 MHz	1 GHz		
7110-000	.027	100 VDC L-Section	10	30	50	54	>70	.01	10
7112-000	.027	100 VDC L-Section	10	30	50	54	>70	.01	5
7220-000	.015	200 VDC Pi-Section	—	8	48	60	>70	.01	10
7410-000	.10	100 VDC Pi-Section	—	28	>70	>70	>70	.01	10
7420-000	.012	200 VDC Pi-Section	—	25	66	>70	>70	.01	10
7510-000	.10	100 VDC Pi-Section	10	40	>70	>70	>70	.003	25
7520-000	.02	200 VDC Pi-Section	—	27	>70	>70	>70	.003	25

Drawings are to scale.

Feed-Thru Filters

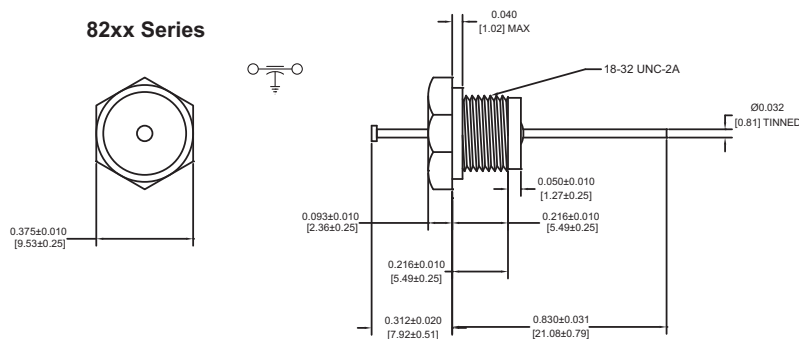
81xx / 82xx / 84xx / 85xx

81xx Series



*FOR 25AWG (0.016 DIA) TINNED STEEL LEAD, MEASURES DC CURRENT = 5 AMPS

82xx Series



Note: Drawings on this page are in scale.

Part No:	8100-xxx	8110-xxx	8120-xxx
Voltage	50 WVDC	100 WVDC	200 WVDC
Max DC Current	10 Amps	10 Amps	10 Amps

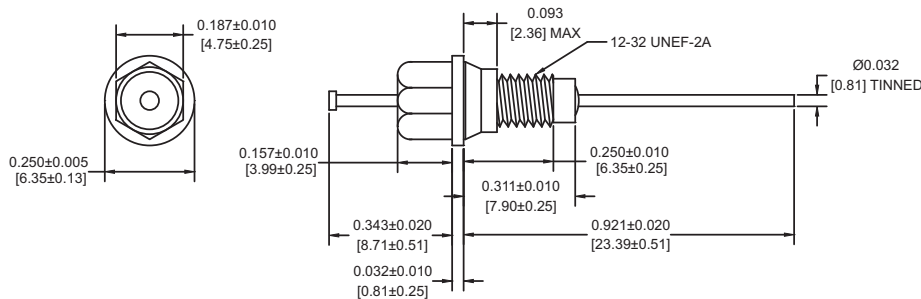
	1000 pf	1000 pf	1000 pf
	5000 pf	5000 pf	5000 pf
Capacitance	.010 μ f	.010 μ f	.010 μ f
(gmV)	.027 μ f	.027 μ f	.027 μ f
	.050 μ f		

Part No:	8200-xxx	8210-xxx	8220-xxx
Voltage	50 WVDC	100 WVDC	200 WVDC
Max DC Current	10 Amps	10 Amps	10 Amps

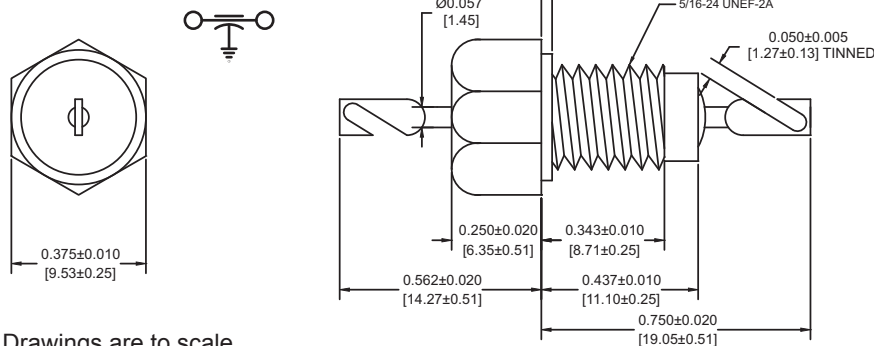
	1000 pf	1000 pf	1000 pf
	5000 pf	5000 pf	5000 pf
Capacitance	.010 μ f	.010 μ f	.010 μ f
(gmV)	.027 μ f	.027 μ f	.027 μ f
	.050 μ f		

Feed-Thru Filters

84xx Series



85xx Series



Drawings are to scale.

81xx / 82xx / 84xx / 85xx

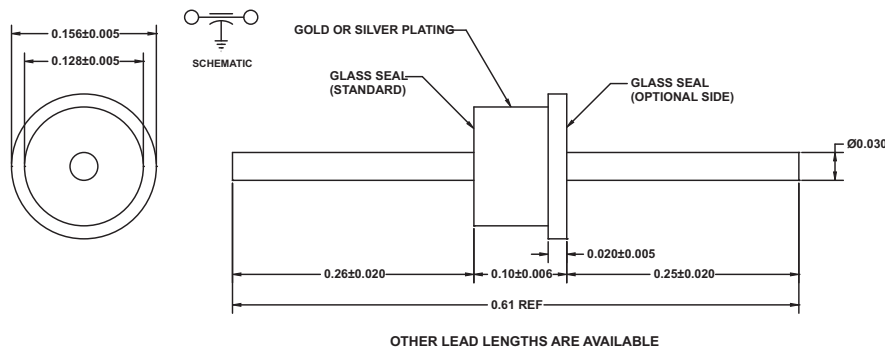
Part No:	8400-xxx	8410-xxx	8420-xxx
Voltage	50 WVDC	100 WVDC	200 WVDC
DC Current Max	10 Amps	10 Amps	10 Amps
Capacitance (gmV)	1000 pF 5000 pF .010 μ F .027 μ F .050 μ F .100 μ F .300 μ F	1000 pF 5000 pF .010 μ F .027 μ F .050 μ F .100 μ F	1000 pF 5000 pF .010 μ F .030 μ F

Part No:	8500-xxx	8510-xxx	8520-xxx
Voltage	50 WVDC	100 WVDC	200 WVDC
DC Current Max	10 Amps	10 Amps	10 Amps
Capacitance (gmV)	1000 pF 3300 pF 5000 pF .010 μ F .033 μ F .050 μ F .100 μ F	1000 pF 3300 pF 5000 pF .010 μ F .050 μ F	1000 pF 3300 pF 5000 pF .010 μ F

Feed-Thru Capacitors

6200 / 6210 / 6220 / 6230 / 6240

62xx Series



Note: Drawings on this page are in scale.

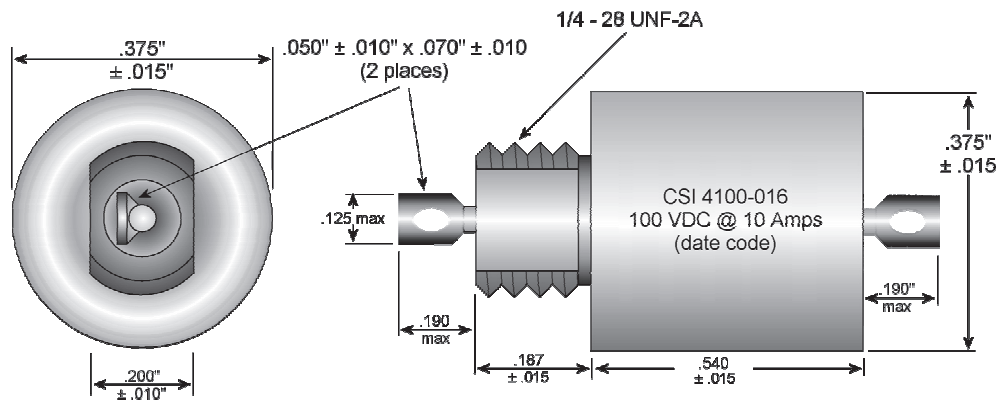
Series	6200	6210	6220	6230	6240
Voltage	50 VDC	100 VDC	200 VDC	300 VDC	400 VDC
Current	5 Amp	5 Amp	5 Amp	5 Amp	5 Amp
Capacitance (pf GMV)	<5 30 100 500 1000 1200 2200 2700 3900 5000 10000 15000 22000	<5 30 100 500 1000 1200 2200 2700 3900 5000	<5 30 100 500 1000 1200 2200 2700	<5 30 100 500 1000 1200	<5 30 100 500 1000 1200

All units are hermetically sealed on glass end. The opposite end is epoxy sealed. These units are available with a glass seal at either end. A unit with a glass seal at the flange end has an "R" as a suffix to the part number. E.g. P/N 6200-500R = 500 pf min @ 50 VDC @ 5 Amps while P/N 6220-005 = <5 pf @ 200 VDC @ 5 Amps.

Standard part number example: 6220-122 = 1200 pf min @ 200 VCD @ 5 Amps.

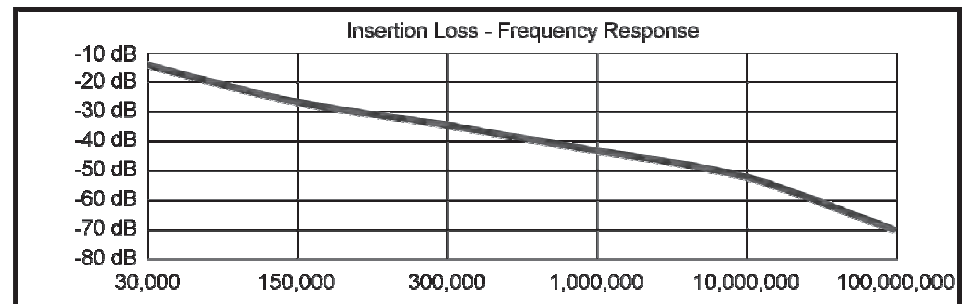
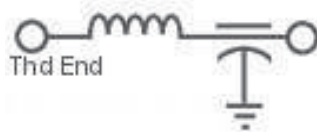
Filter, RFI

4100-018



Electrical Specifications	
Operating Voltage:	100 VDC
Operating Temperature:	-55° C to +125° C
Operating Current:	10.0 Amp
Schematic:	L-Section
Capacitance:	1.4 μ f min
DCR:	.05 Ω max

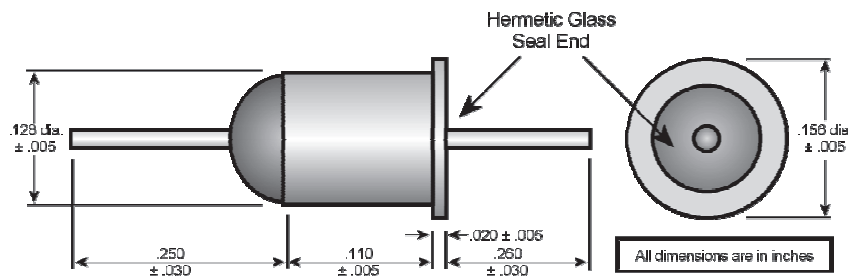
Included is plated 1/4-28 nut and internal tooth lockwasher.



Drawings may not be to scale; refer to dimensions.

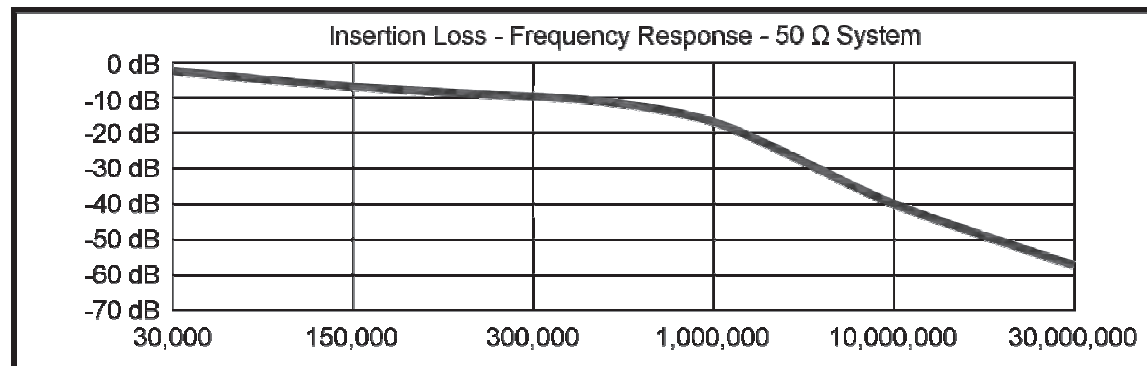
Feedthru Capacitor

6210-333A



Electrical Specifications	
Operating Voltage:	100 VDC
Operating Temperature:	-55° C to +125° C
Operating Current:	5.0 Amp maximum
Schematic:	Feed-thru
Capacitance:	.033 μ f, +100%, -0%

Case & Lead Finish: Gold Plated



Drawings may not be to scale; refer to dimensions.



CUSTOM SUPPRESSION

Electro Technik Companies

Magnetics Products

Hytronics Corp.

P.O. Box 18802, Clearwater, FL 33762
tel: 727-535-0413 fax: 727-531-1592
hy_sales_service@electrotechnik.com
www.hytronicscorp.com

- Power Transformers and Power Inductors

Raycom Electronics, Inc.

P.O. Box 250, 1 Raycom Rd., Dover, PA 17315
tel: 717-292-3641 fax: 717-292-2919
raycomsaleservice@electrotechnik.com
www.raycomelectronics.com

- Custom Military and Avionics Magnetics

Goguen Industries

1100 S. Plumer Avenue, Tucson, AZ 85719
tel: 520-573-0221 fax: 520-573-0520
goguensales@electrotechnik.com
www.goguenindustries.com

- Specialty Inductors, Transformers, and Air Coils

Inductive Technologies, Inc. (I-Tech)

P.O. Box 18802, Clearwater, FL 33762
tel: 727-532-4459 fax: 727-531-1592
i-techsales@electrotechnik.com
www.inductech.com

- Standard Catalog Inductors and Transformers

Winatic Corp.

P.O. Box 18802, Clearwater, FL 33762
tel: 727-538-8917 fax: 727-531-1592
win_sales_service@electrotechnik.com
www.winatic.com

- Transformers and Inductors for Medical Devices and Equipment

Capacitive Products

Arizona Capacitors, Inc.

1100 S. Plumer Avenue, Tucson, AZ 85719
tel: 520-573-0221 fax: 520-573-0520
azcapsales@electrotechnik.com
www.arizonacapacitors.com

- Wound Film Capacitors and Electronic Filters

Custom Suppression, Inc.

1100 S. Plumer Avenue, Tucson, AZ 85719
tel: 520-573-0223 fax: 520-573-0520
csisales@electrotechnik.com
www.customsuppression.com

- Broadband, Microwave, EMI and RFI Filters, Filtered Connectors, and Assemblies

Microwave Products

Res-Net Microwave, Inc.

P.O. Box 18802, Clearwater, FL 33762
tel: 727-530-9555 fax: 727-531-8215
res_sales_service@electrotechnik.com
www.res-netmicrowave.com

- RF/Microwave Resistors, Attenuators, Terminations

Wavetronix Corp.

P.O. Box 18802, Clearwater, FL 33762
tel: 727-530-9555 fax: 727-531-8215
wave_sales_service@electrotechnik.com
www.wavetronix-eti.com

- RF/Microwave Cable Assemblies and Semi-Rigid Coaxial Cables, Flexible Cable

Resistive Products

Tepro of Florida, Inc.

P.O. Box 18802, Clearwater, FL 33762
tel: 727-796-1044 fax: 727-791-7425
tep_sales_service@electrotechnik.com
www.tepro-vamistor.com

- Wirewound and Metal Film Resistors

Vamistor

P.O. Box 1260, Clearwater, FL 33757
tel: 727-796-1044 fax: 727-791-7425
tep_sales_service@electrotechnik.com
www.tepro-vamistor.com

- Carbon Film and RL 42 Resistors

CUSTOM SUPPRESSION, INC.

1100 S. Plumer Avenue, Tucson, AZ 85719 ■ Ph 520-573-0223 ■ Fax 520-573-0520
www.customsuppression.com ■ e-mail csisales@electrotechnik.com

