

RFI/EMI/EMC FILTERS

RFI SPECIALTY COMPONENTS PROGRAMS

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EMS

Ultra
ELECTRONICS



EMP AND VOLTAGE TRANSIENT FILTERS

The RFI SPECIALTY COMPONENTS program includes a range of EMI/RFI filters that are designed to protect circuits against very high energy transient events. Examples include:

- ELECTROMAGNETIC PULSE (EMP)
- LIGHTNING STRIKE
- HIGH ALTITUDE EMP (HEMP)
- SOLAR ACTIVITY
- NUCLEAR EXPLOSION (NEMP)

A range of possibilities are available; products range from small Subminiature Tubular filters to others that are housed in large seam-welded steel cases. Several standard designs are presented in the following pages, but customized designs are always possible.

EMS

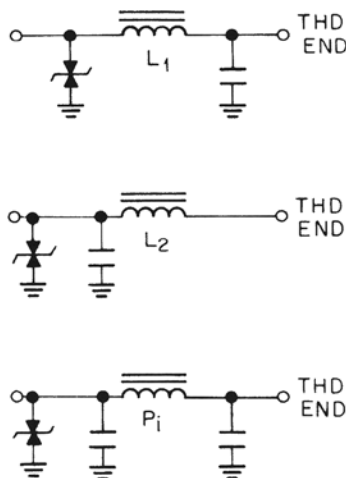


SUBMINIATURE RFI/EMP FILTERS 5 VDC

RF5305E SERIES

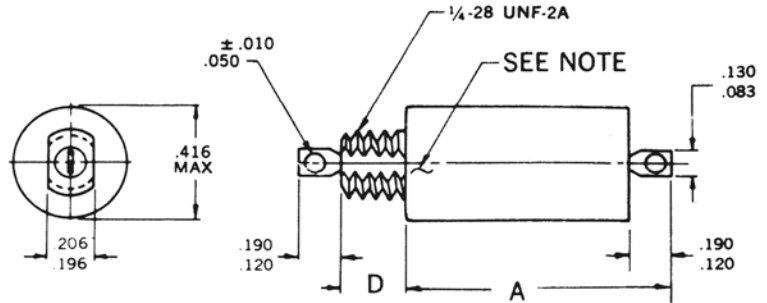
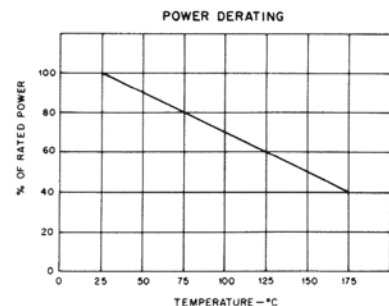
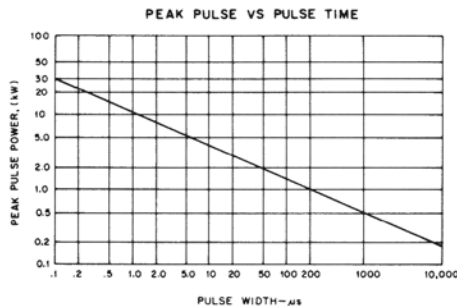
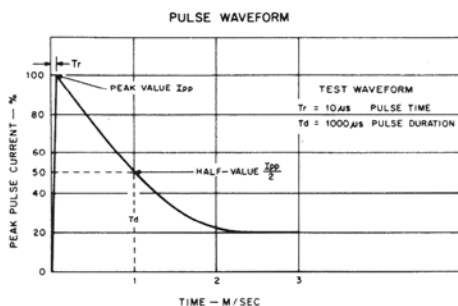
This low voltage filter series incorporates a shunt bi-directional zener diode transient suppression element, designed to protect equipments from damage due to undesired transient or EMP (Electro-Magnetic Pulse) voltages. The device transient performance and power rating is defined in the electrical characteristics table and power rating curves herein. In addition these filter units provide high broadband insertion loss to meet RFI/EMI system requirements.

CIRCUIT CONFIGURATIONS



NOTE: THE CASE SHALL BE MARKED AT THE THREADED END OF FILTER, WITH THE SYMBOL "C" OR THE SYMBOL "L", AS FOLLOWS:

CIRCUIT	SYMBOL
L_1	C
L_2	L



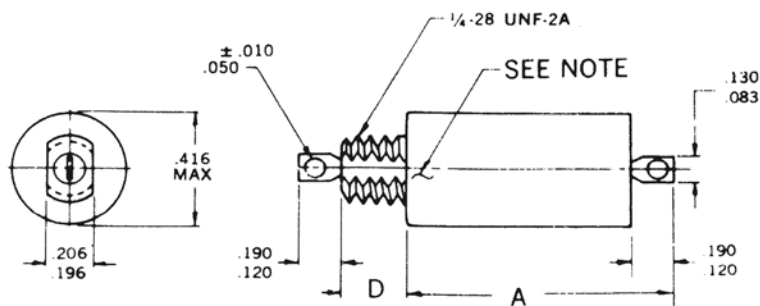
SPECIFICATIONS

OPERATING TEMPERATURE: -55°C TO +125°C
FILTER PERFORMANCE IS EQUIVALENT TO MIL SERIES M15733/23
MODIFIED TO INCORPORATE TRANSIENT SUPPRESSION.
CONFORMS TO THE APPLICABLE REQUIREMENTS OF MIL-F-15733.
FILTER SUPPLIED WITH LOCKWASHER & HEX NUT
FINISH: HOT SOLDER DIP

RFI PART NO.		CKT	RATING		A MAX	D ±.010	MAX VOLT. DROP	MINIMUM INSERTION LOSS IN DECIBELS MIL-STD-220A (FULL LOAD)										1 MHz	10 MHz	1 GHz
			DC VOLTS	AMP				15 KHz	30 KHz	50 KHz	100 KHz	150 KHz	300 KHz	500 KHz						
RF5305E-1	L ₂	10	5	.940	.312	.17	9	20	29	41	48	60	69	70	70	70				
RF5305E-2	L ₂	10	5	.940	.187	.17	9	20	29	41	48	60	69	70	70	70				
RF5305E-3	L ₁	10	5	.940	.312	.17	9	20	29	41	48	60	69	70	70	70				
RF5305E-4	L ₁	10	5	.940	.187	.17	9	20	29	41	48	60	69	70	70	70				
RF5305E-5	P ₁	10	5	1.065	.312	.17	15	36	50	69	79	80	80	80	80	80				
RF5305E-6	P ₁	10	5	1.065	.187	.17	15	36	50	69	79	80	80	80	80	80				
RF5305E-7	L ₂	30	5	.940	.312	.23	6	15	23	35	42	54	63	70	70	70				
RF5305E-8	L ₂	30	5	.940	.187	.23	6	15	23	35	42	54	63	70	70	70				
RF5305E-9	L ₁	30	5	.940	.312	.23	6	15	23	35	42	54	63	70	70	70				
RF5305E-10	L ₁	30	5	.940	.187	.23	6	15	23	35	42	54	63	70	70	70				
RF5305E-11	P ₁	30	5	1.065	.312	.23	4	29	44	62	73	80	80	80	80	80				
RF5305E-12	P ₁	30	5	1.065	.187	.23	4	29	44	62	73	80	80	80	80	80				
RF5305E-13	L ₁	50	5	.940	.312	.18	5	12	19	29	36	48	57	69	70	70				
RF5305E-14	L ₂	50	5	.940	.187	.18	5	12	19	29	36	48	57	69	70	70				
RF5305E-15	L ₁	50	5	.940	.312	.18	5	12	19	29	36	48	57	69	70	70				
RF5305E-16	L ₁	50	5	.940	.187	.18	5	12	19	29	36	48	57	69	70	70				
RF5305E-17	P ₁	50	5	1.065	.312	.18	—	21	37	56	67	80	80	80	80	80				
RF5305E-18	P ₁	50	5	1.065	.187	.18	—	21	37	56	67	80	80	80	80	80				
RF5305E-19	L ₂	1.0	5	.940	.312	.14	5	11	15	21	26	36	44	55	70	70				
RF5305E-20	L ₂	1.0	5	.940	.187	.14	5	11	15	21	26	36	44	55	70	70				
RF5305E-21	L ₁	1.0	5	.940	.312	.14	5	11	15	21	26	36	44	55	70	70				
RF5305E-22	L ₁	1.0	5	.940	.187	.14	5	11	15	21	26	36	44	55	70	70				
RF5305E-23	P ₁	1.0	5	1.065	.312	.14	—	—	20	41	52	71	80	80	80	80				
RF5305E-24	P ₁	1.0	5	1.065	.187	.14	—	—	20	41	52	71	80	80	80	80				
RF5305E-25	L ₂	2.0	5	.940	.312	.14	5	10	14	20	24	32	38	48	70	70				
RF5305E-26	L ₂	2.0	5	.940	.187	.14	5	10	14	20	24	32	38	48	70	70				
RF5305E-27	L ₁	2.0	5	.940	.312	.14	5	10	14	20	24	32	38	48	70	70				
RF5305E-28	L ₁	2.0	5	.940	.187	.14	5	10	14	20	24	32	38	48	70	70				
RF5305E-29	P ₁	2.0	5	1.065	.312	.14	—	—	—	33	46	65	76	80	80	80				
RF5305E-30	P ₁	2.0	5	1.065	.187	.14	—	—	—	33	46	65	76	80	80	80				

ELECTRICAL CHARACTERISTICS @ 25°C

REVERSE STAND-OFF VOLTAGE	BREAKDOWN VOLTAGE			MAXIMUM REVERSE LEAKAGE @VR	MAXIMUM CLAMPING VOLTAGE @Ipp	MAXIMUM PEAK PULSE CURRENT	MAXIMUM VOLTAGE TEMPERATURE VARIATION OF BV
VR VOLTS	MIN	VBR VOLTS @ IT MAX	mA	IR μA	VC(Max.) VOLTS	Ipp (Max.) A	OV (Max.) mV/°C
6.5	7.22	7.98	10	400	11.2	44.7	5.0



SUBMINIATURE RFI/EMP FILTERS

50 VDC

SPECIFICATIONS

OPERATING TEMPERATURE: -55°C TO +125°C
 FILTER PERFORMANCE IS EQUIVALENT TO MIL SERIES M15733/23
 MODIFIED TO INCORPORATE TRANSIENT SUPPRESSION.
 CONFORMS TO THE APPLICABLE REQUIREMENTS OF MIL-F-15733.
 FILTER SUPPLIED WITH LOCKWASHER & HEX NUT
 FINISH: HOT SOLDER DIP

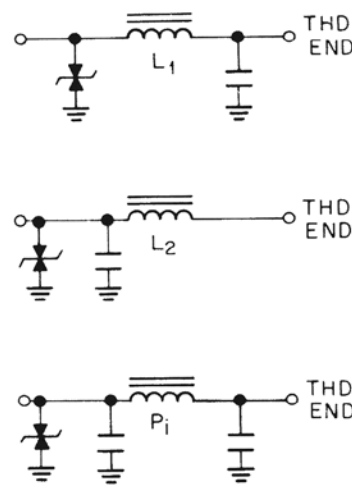
RF5305E SERIES

This low voltage filter series incorporates a shunt bi-directional zener diode transient suppression element, designed to protect equipments from damage due to undesired transient or EMP (Electro-Magnetic Pulse) voltages. The device transient performance and power rating is defined in the electrical characteristics table and power rating curves herein. In addition these filter units provide high broadband insertion loss to meet RFI/EMI system requirements.

MINIMUM INSERTION LOSS
 IN DECIBELS
 MIL-STD-220A (FULL LOAD)

RFI PART NO.	CKT	RATING DC AMP	DC VOLTS	A MAX	D ±.010	MAX VOLT. DROP	15 KHz	30 KHz	50 KHz	100 KHz	150 KHz	300 KHz	500 KHz	1 MHz	10 MHz	1 GHz
RF5305E-31	L ₂	10	50	940	312	17	9	20	29	41	48	60	69	70	70	70
RF5305E-32	L ₂	10	50	940	187	17	9	20	29	41	48	60	69	70	70	70
RF5305E-33	L ₁	10	50	940	312	17	9	20	29	41	48	60	69	70	70	70
RF5305E-34	L ₁	10	50	940	187	17	9	20	29	41	48	60	69	70	70	70
RF5305E-35	P ₁	10	50	1.065	312	17	15	36	50	69	79	80	80	80	80	80
RF5305E-36	P ₁	10	50	1.065	187	17	15	36	50	69	79	80	80	80	80	80
RF5305E-37	L ₂	30	50	940	312	23	6	15	23	35	42	54	63	70	70	70
RF5305E-38	L ₂	30	50	940	187	23	6	15	23	35	42	54	63	70	70	70
RF5305E-39	L ₁	30	50	940	312	23	6	15	23	35	42	54	63	70	70	70
RF5305E-40	L ₁	30	50	940	187	23	6	15	23	35	42	54	63	70	70	70
RF5305E-41	P ₁	30	50	1.065	312	23	4	29	44	62	73	80	80	80	80	80
RF5305E-42	P ₁	30	50	1.065	187	23	4	29	44	62	73	80	80	80	80	80
RF5305E-43	L ₂	50	50	940	312	18	5	12	19	29	36	48	57	69	70	70
RF5305E-44	L ₂	50	50	940	187	18	5	12	19	29	36	48	57	69	70	70
RF5305E-45	L ₁	50	50	940	312	18	5	12	19	29	36	48	57	69	70	70
RF5305E-46	L ₁	50	50	940	187	18	5	12	19	29	36	48	57	69	70	70
RF5305E-47	P ₁	50	50	1.065	312	18	—	21	37	56	67	80	80	80	80	80
RF5305E-48	P ₁	50	50	1.065	187	18	—	21	37	56	67	80	80	80	80	80
RF5305E-49	L ₂	1.0	50	940	312	14	5	11	15	21	26	36	44	55	70	70
RF5305E-50	L ₂	1.0	50	940	187	14	5	11	15	21	26	36	44	55	70	70
RF5305E-51	L ₁	1.0	50	940	312	14	5	11	15	21	26	36	44	55	70	70
RF5305E-52	L ₁	1.0	50	940	187	14	5	11	15	21	26	36	44	55	70	70
RF5305E-53	P ₁	1.0	50	1.065	312	14	—	—	20	41	52	71	80	80	80	80
RF5305E-54	P ₁	1.0	50	1.065	187	14	—	—	20	41	52	71	80	80	80	80
RF5305E-55	L ₂	2.0	50	940	312	14	5	10	14	20	24	32	38	48	70	70
RF5305E-56	L ₂	2.0	50	940	187	14	5	10	14	20	24	32	38	48	70	70
RF5305E-57	L ₁	2.0	50	940	312	14	5	10	14	20	24	32	38	48	70	70
RF5305E-58	L ₁	2.0	50	940	187	14	5	10	14	20	24	32	38	48	70	70
RF5305E-59	P ₁	2.0	50	1.065	312	14	—	—	—	33	46	65	76	80	80	80
RF5305E-60	P ₁	2.0	50	1.065	187	14	—	—	—	33	46	65	76	80	80	80

CIRCUIT CONFIGURATIONS



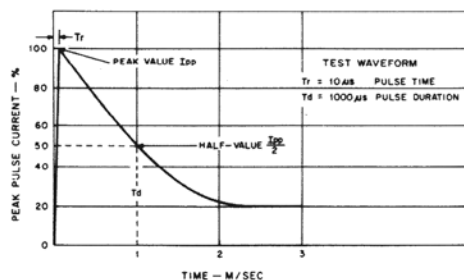
NOTE: THE CASE SHALL BE MARKED AT THE THREADED END OF FILTER, WITH THE SYMBOL "C" OR THE SYMBOL "L", AS FOLLOWS:

CIRCUIT SYMBOL
 L₁ C
 L₂ L
 P₁ L

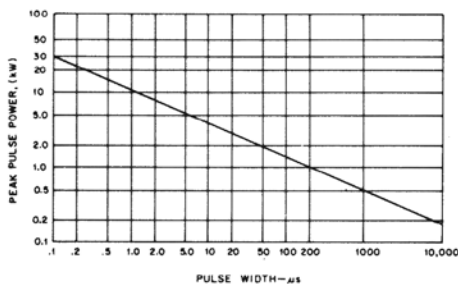
ELECTRICAL CHARACTERISTICS @ 25°C

REVERSE STAND-OFF VOLTAGE	BREAKDOWN VOLTAGE	MAXIMUM REVERSE LEAKAGE @VR	MAXIMUM CLAMPING VOLTAGE @Ipp	MAXIMUM PEAK PULSE CURRENT	MAXIMUM VOLTAGE TEMPERATURE VARIATION OF BV
VR VOLTS	VBR VOLTS @ IT MIN. MAX.	IR uA	VC(Max.) VOLTS	Ipp (Max.) A	OV (Max.) mV/°C
58	64.4 71.2	1	93.6	5.3	70

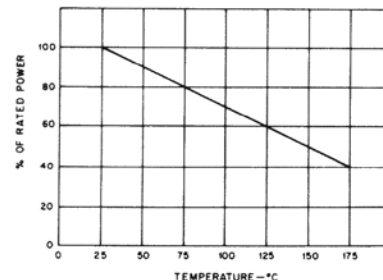
PULSE WAVEFORM



PEAK PULSE VS PULSE TIME



POWER DERATING

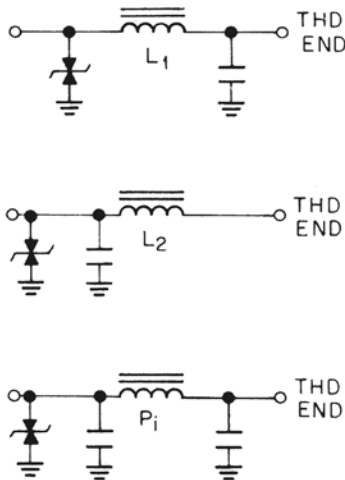


SUBMINIATURE RFI/EMP FILTERS 150 VDC

RF5305E SERIES

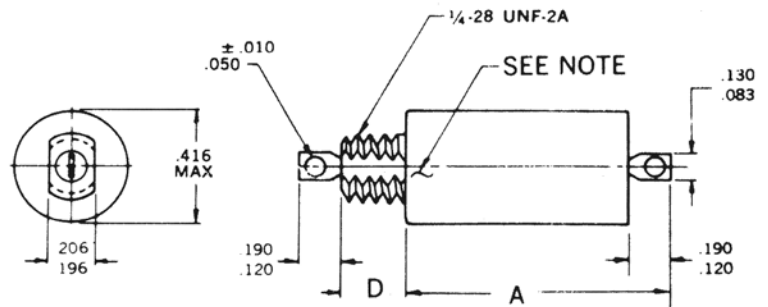
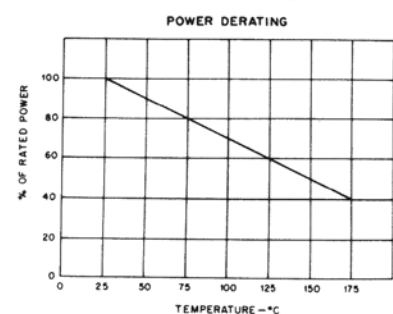
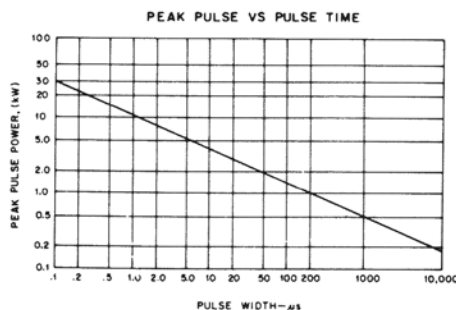
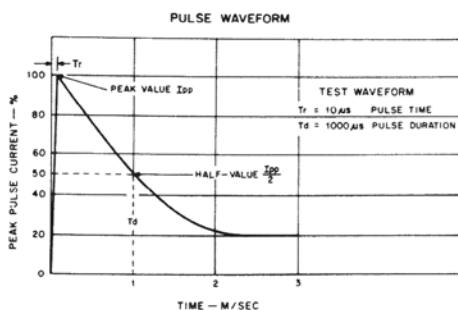
This low voltage filter series incorporates a shunt bi-directional zener diode transient suppression element, designed to protect equipments from damage due to undesired transient or EMP (Electro-Magnetic Pulse) voltages. The device transient performance and power rating is defined in the electrical characteristics table and power rating curves herein. In addition these filter units provide high broadband insertion loss to meet RFI/EMI system requirements.

CIRCUIT CONFIGURATIONS



NOTE: THE CASE SHALL BE MARKED AT THE THREADED END OF FILTER, WITH THE SYMBOL "C" OR THE SYMBOL "L", AS FOLLOWS:

CIRCUIT SYMBOL
L₁ C
L₂ L
P_i



SPECIFICATIONS

OPERATING TEMPERATURE: -55°C TO +125°C
FILTER PERFORMANCE IS EQUIVALENT TO MIL SERIES M15733/23
MODIFIED TO INCORPORATE TRANSIENT SUPPRESSION.
CONFORMS TO THE APPLICABLE REQUIREMENTS OF MIL-F-15733.
FILTER SUPPLIED WITH LOCKWASHER & HEX NUT
FINISH: HOT SOLDER DIP

MINIMUM INSERTION LOSS
IN DECIBELS
MIL-STD-220A (FULL LOAD)

RFI PART NO.	CKT	RATING DC AMP	DC VOLTS	A MAX	D ± .010	MAX VOLT DROP	15 KHz	30 KHz	50 KHz	100 KHz	150 KHz	300 KHz	500 KHz	1 MHz	10 MHz	1 GHz
RF5305E-61	L ₂	10	150	940	312	17	2	11	20	32	39	51	60	60	60	60
RF5305E-62	L ₂	10	150	940	187	17	2	11	20	32	39	51	60	60	60	60
RF5305E-63	L ₁	10	150	940	312	17	2	11	20	32	39	51	60	60	60	60
RF5305E-64	L ₁	10	150	940	187	17	2	11	20	32	39	51	60	60	60	60
RF5305E-65	P _i	10	150	1065	312	17	—	17	31	49	60	70	70	70	70	70
RF5305E-66	P _i	10	150	1065	187	17	—	17	31	49	60	70	70	70	70	70
RF5305E-67	L ₂	30	150	940	312	23	—	6	13	25	32	44	52	60	60	60
RF5305E-68	L ₂	30	150	940	187	23	—	6	13	25	32	44	52	60	60	60
RF5305E-69	L ₁	30	150	940	312	23	—	6	13	25	32	44	52	60	60	60
RF5305E-70	L ₁	30	150	940	187	23	—	6	13	25	32	44	52	60	60	60
RF5305E-71	P _i	30	150	1065	312	23	—	8	24	43	53	70	70	70	70	70
RF5305E-72	P _i	30	150	1065	187	23	—	8	24	43	53	70	70	70	70	70
RF5305E-73	L ₂	50	150	940	312	18	—	3	9	20	26	39	47	59	60	60
RF5305E-74	L ₂	50	150	940	187	18	—	3	9	20	26	39	47	59	60	60
RF5305E-75	L ₁	50	150	940	312	18	—	3	9	20	26	39	47	59	60	60
RF5305E-76	L ₁	50	150	940	187	18	—	3	9	20	26	39	47	59	60	60
RF5305E-77	P _i	50	150	1065	312	18	—	—	15	37	48	66	70	70	70	70
RF5305E-78	P _i	50	150	1065	187	18	—	—	15	37	48	66	70	70	70	70
RF5305E-79	L ₂	1.0	150	940	312	14	—	3	6	12	16	26	34	46	60	60
RF5305E-80	L ₂	1.0	150	940	187	14	—	3	6	12	16	26	34	46	60	60
RF5305E-81	L ₁	1.0	150	940	312	14	—	3	6	12	16	26	34	46	60	60
RF5305E-82	L ₁	1.0	150	940	187	14	—	3	6	12	16	26	34	46	60	60
RF5305E-83	P _i	1.0	150	1065	312	14	—	—	—	18	32	51	65	70	70	70
RF5305E-84	P _i	1.0	150	1065	187	14	—	—	—	18	32	51	65	70	70	70
RF5305E-85	L ₂	2.0	150	940	312	14	—	3	5	11	15	23	29	38	60	60
RF5305E-86	L ₂	2.0	150	940	187	14	—	3	5	11	15	23	29	38	60	60
RF5305E-87	L ₁	2.0	150	940	312	14	—	3	5	11	15	23	29	38	60	60
RF5305E-88	L ₁	2.0	150	940	187	14	—	3	5	11	15	23	29	38	60	60
RF5305E-89	P _i	2.0	150	1065	312	14	—	—	—	22	45	59	70	70	70	70
RF5305E-90	P _i	2.0	150	1065	187	14	—	—	—	22	45	59	70	70	70	70

ELECTRICAL CHARACTERISTICS @ 25°C

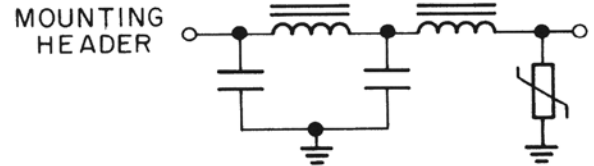
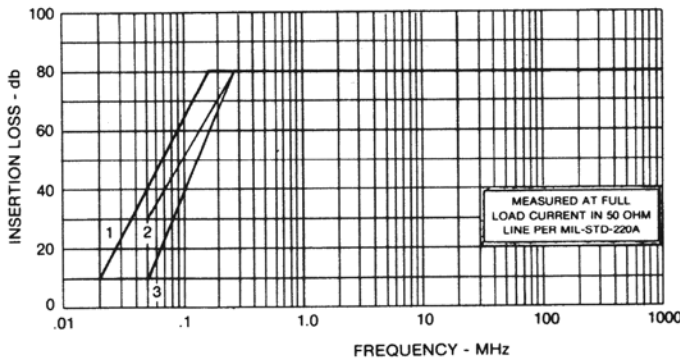
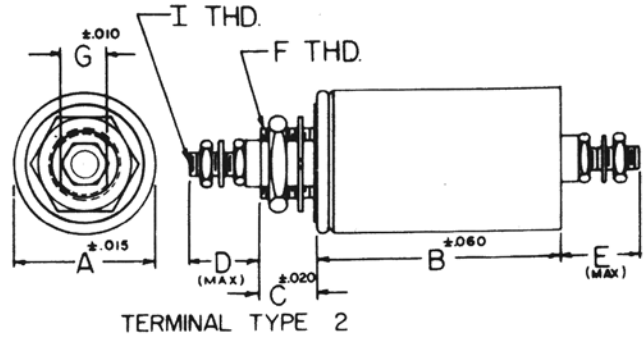
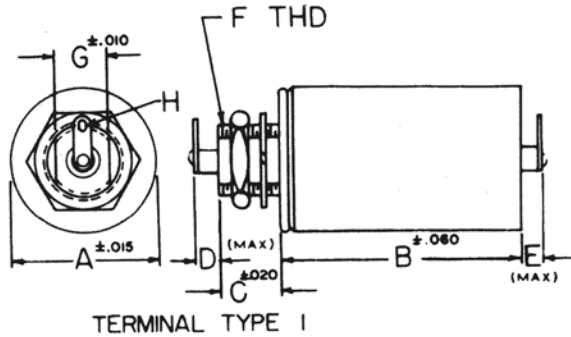
REVERSE STAND-OFF VOLTAGE	BREAKDOWN VOLTAGE	MAXIMUM REVERSE LEAKAGE @ Vr	MAXIMUM CLAMPING VOLTAGE @ Ipp	MAXIMUM PEAK PULSE CURRENT	MAXIMUM VOLTAGE TEMPERATURE VARIATION OF BV
Vr VOLTS	VBr VOLTS @ IT MIN. MAX.	IR μA	Vc (Max.) VOLTS	Ipp (Max.) A	ΔV (Max.) mV/°C
160	178 197	1	259	1.9	196

RF 9710E SERIES

This medium voltage filter series incorporates a shunt metal-oxide varistor (MOV) transient suppression element, designed to protect equipments from damage due to undesired transient or EMP (Electro-Magnetic Pulse) voltages. The device transient performance and power rating is defined in the electrical specifications and pulse rating curves herein. In addition, these filters will provide high broadband insertion loss to meet RFI/EMI system requirements.

RFI/EMP FILTERS

DOUBLE "L" CIRCUIT TYPES

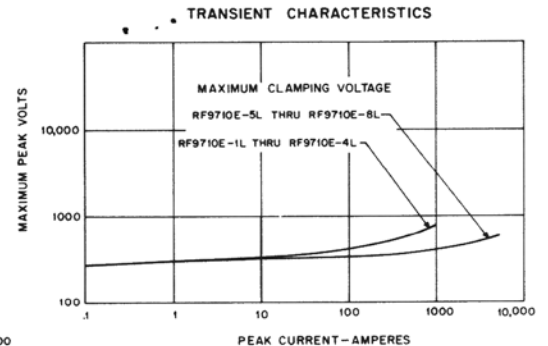
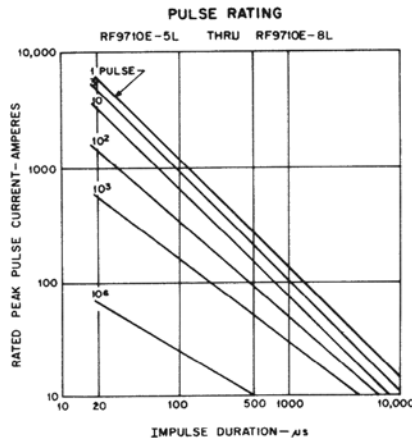
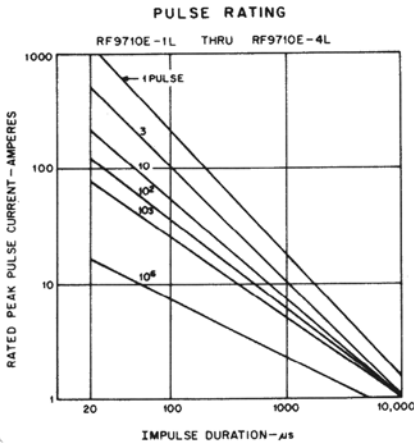


NOTES:

1. Operating Temperature: -55°C to $+125^{\circ}\text{C}$.
2. Maximum Voltage Drop: 1% of rated voltage.
3. Conforms to applicable requirements of MIL-F-15733.
4. Transient characteristics see Pulse Rating and E-I Curves below.
5. Filter performance is equivalent to MIL series M15733/72 modified to incorporate transient suppression.

RATING	PART NO.	CLAMPING VOLTS MAX @ 1MADC	ENERGY 10/1000us JOULES	PEAK CURRENT 8/20us A	A	B	C	D	E	F	G	H	I	TERMINAL TYPE	INSERTION LOSS GRAPH
100 VDC	0.5A RF9710E-1L	228	11	1200	.75	3.00	.28	.32	.32	5/16-24	.250	1/16x1/8		1*	1
	1A RF9710E-2L	228	11	1200	.75	3.13	.28	.32	.32	5/16-24	.250	1/16x1/8		1*	1
	3A RF9710E-3L	228	11	1200	1.13	3.25	.44	.25	.25	7/16-20	.370	3/32x3/16		1	2
	5A RF9710E-4L	228	11	1200	1.13	3.50	.44	.25	.25	7/16-20	.370	3/32x3/16		1	2
	10A RF9710E-5L	228	70	6500	1.50	4.62	.50	.69	.69	3/4-20	.656		8-32	2	2
	20A RF9710E-6L	228	70	6500	1.50	5.25	.50	.69	.69	3/4-20	.656		8-32	2	3
	30A RF9710E-7L	228	70	6500	2.25	5.37	.56	.81	.81	1-1/8-18	1.065		10-32	2	3
	50A RF9710E-8L	228	70	6500	2.25	6.37	.56	.88	.88	1-1/8-18	1.065		1/4-20	2	3

*45° LUG

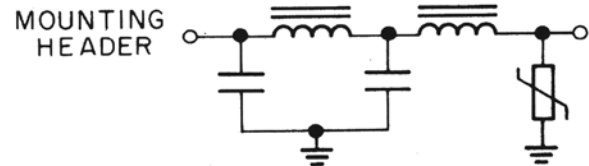
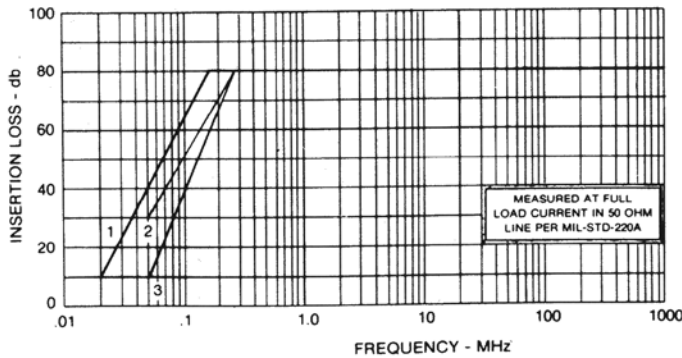
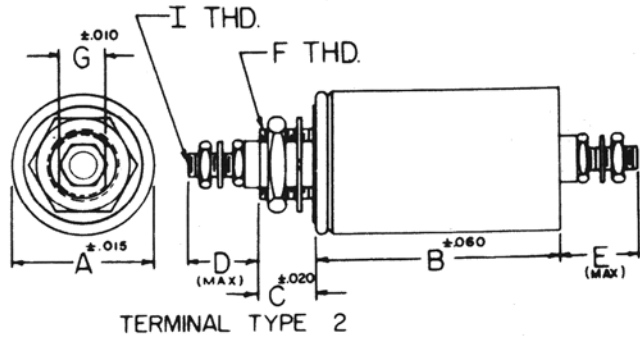
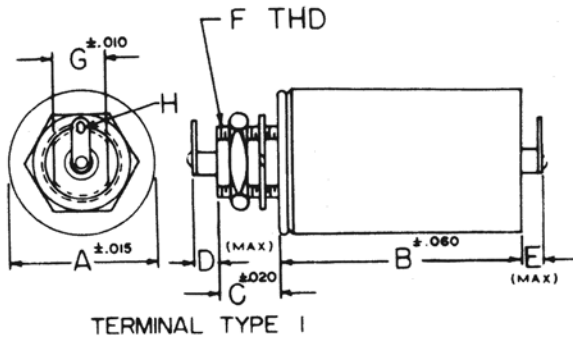


RFI/EMP FILTERS

DOUBLE "L" CIRCUIT TYPES

RF 9710E SERIES

This medium voltage filter series incorporates a shunt metal-oxide varistor (MOV) transient suppression element, designed to protect equipments from damage due to undesired transient or EMP (Electro-Magnetic Pulse) voltages. The device transient performance and power rating is defined in the electrical specifications and pulse rating curves herein. In addition, these filters will provide high broadband insertion loss to meet RFI/EMI system requirements.



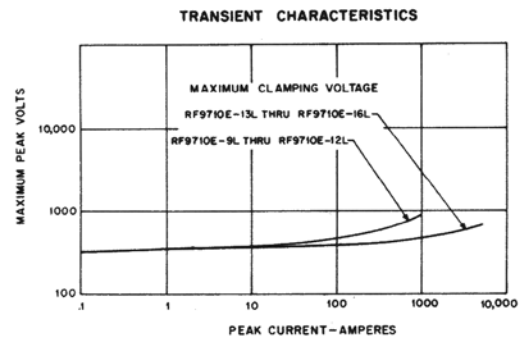
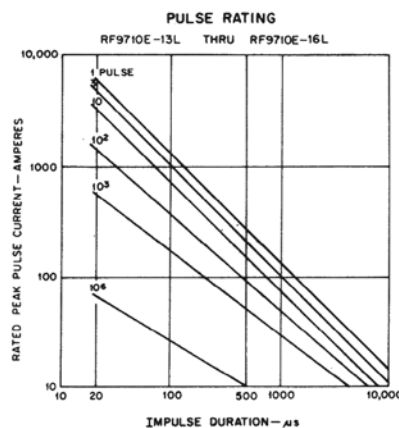
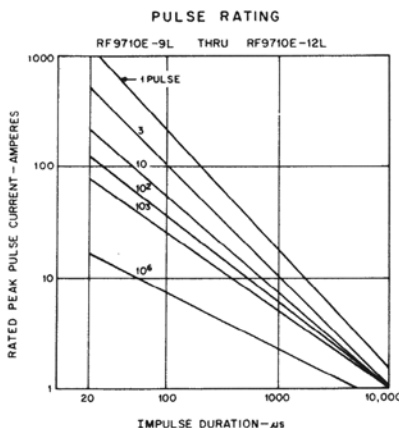
SCHEMATIC DIAGRAM

NOTES:

1. Operating Temperature: -55°C to $+125^{\circ}\text{C}$.
2. Maximum Voltage Drop: 1% of rated voltage.
3. Conforms to applicable requirements of MIL-F-15733.
4. Transient characteristics see Pulse Rating and E-I Curves below.
5. Filter performance is equivalent to MIL series M15733/73 modified to incorporate transient suppression.

RATING		PART NO.	CLAMPING VOLTS MAX @ 1MADC	ENERGY 10/1000 μs JOULES	PEAK CURRENT 8/80 μs A	A	B	C	D	E	F	G	H	I	TERMINAL TYPE	INSERTION LOSS GRAPH
115 VAC 0-400 CPS 200 VDC	0.5A	RF9710E-9L	268	13	1200	.75	3.62	.28	.32	.32	5/16-24	.250	1/16x1/8		1*	1
	1A	RF9710E-10L	268	13	1200	1.00	3.75	.44	.25	.25	7/16-20	.370	3/32x3/16		1	1
	3A	RF9710E-11L	268	13	1200	1.13	3.87	.44	.25	.25	7/16-20	.370	3/32x3/16		1	2
	5A	RF9710E-12L	268	13	1200	1.25	4.87	.44	.25	.25	7/16x20	.370	3/32x3/16		1	2
	10A	RF9710E-13L	268	80	6500	1.50	4.87	.50	.69	.69	3/4-20	.656		8-32	2	3
	20A	RF9710E-14L	268	80	6500	1.75	5.87	.50	.69	.69	3/4-20	.656		8-32	2	3
	30A	RF9710E-15L	268	80	6500	2.25	6.00	.56	.81	.81	1-1/8-18	1.065		10-32	2	3
	50A	RF9710E-16L	268	80	6500	2.25	6.87	.56	.88	.88	1-1/8-18	1.065		1/4-20	2	3

*45° LUG

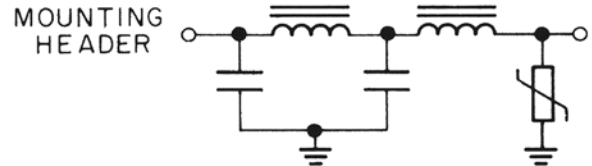
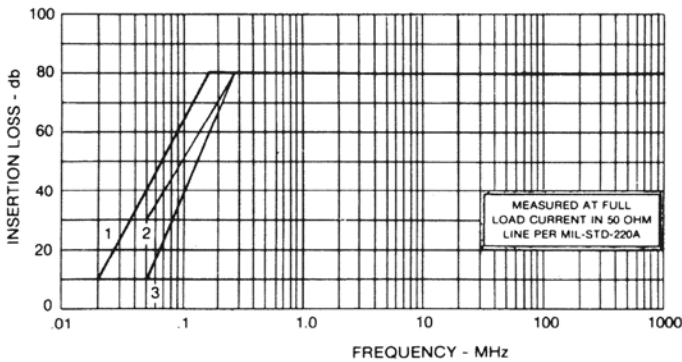
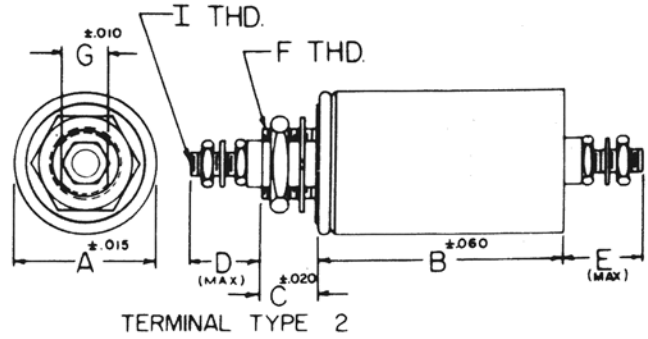
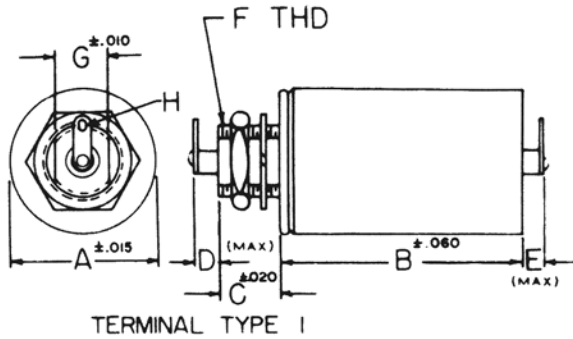


RF 9710E SERIES

This medium voltage filter series incorporates a shunt metal-oxide varistor (MOV) transient suppression element, designed to protect equipments from damage due to undesired transient or EMP (Electro-Magnetic Pulse) voltages. The device transient performance and power rating is defined in the electrical specifications and pulse rating curves herein. In addition, these filters will provide high broadband insertion loss to meet RFI/EMI system requirements.

RFI/EMP FILTERS

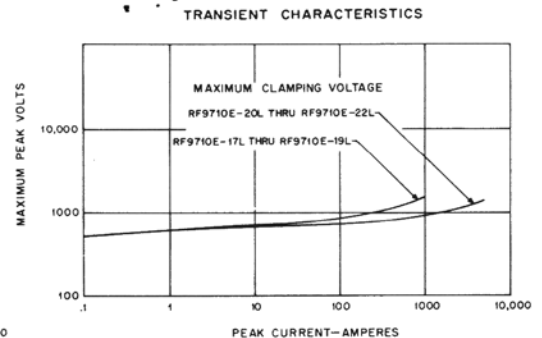
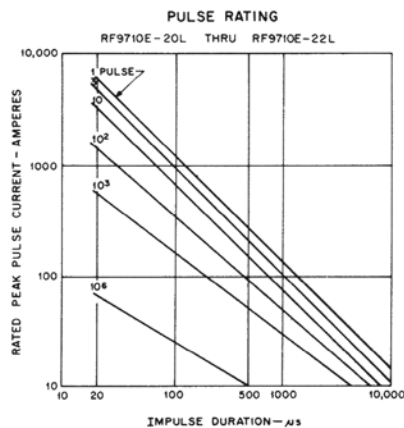
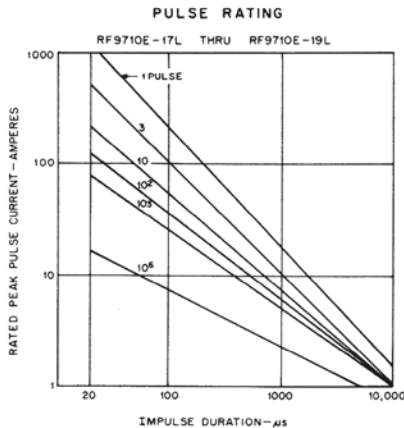
DOUBLE "L" CIRCUIT TYPES



NOTES:

1. Operating Temperature: -55°C to $+125^{\circ}\text{C}$.
2. Maximum Voltage Drop: 1% of rated voltage.
3. Conforms to applicable requirements of MIL-F-15733.
4. Transient characteristics see Pulse Rating and E-I Curves below.
5. Filter performance is equivalent to MIL series M15733/74 modified to incorporate transient suppression.

RATING	PART NO.	CLAMPING VOLTS MAX @1MADC	ENERGY 10/1000 μs JOULES	PEAK CURRENT 8/20 μs A	A	B	C	D	E	F	G	H	I	TERMINAL TYPE	INSERTION LOSS GRAPH
250 VAC 0-400 CPS 360 VDC	0.5A RF9710E-17L	473	23	1200	1.00	3.62	.44	.25	.25	7/16-20	.370	3/32x3/16		1	1
	1A RF9710E-18L	473	23	1200	1.00	4.12	.44	.25	.25	7/16-20	.370	3/32x3/16		1	1
	3A RF9710E-19L	473	23	1200	1.25	4.75	.44	.25	.25	7/16-20	.370	3/32x3/16		1	2
	5A RF9710E-20L	473	140	6500	1.50	4.75	.50	.69	.69	3/4-20	.656		8-32	2	2
	10A RF9710E-21L	473	140	6500	1.50	6.12	.50	.69	.69	3/4-20	.656		8-32	2	2
	20A RF9710E-22L	473	140	6500	2.25	6.87	.56	.69	.69	1-1/8-18	1.065		8-32	2	3



SERIES 6700E

RFI/EMP

HIGH CURRENT

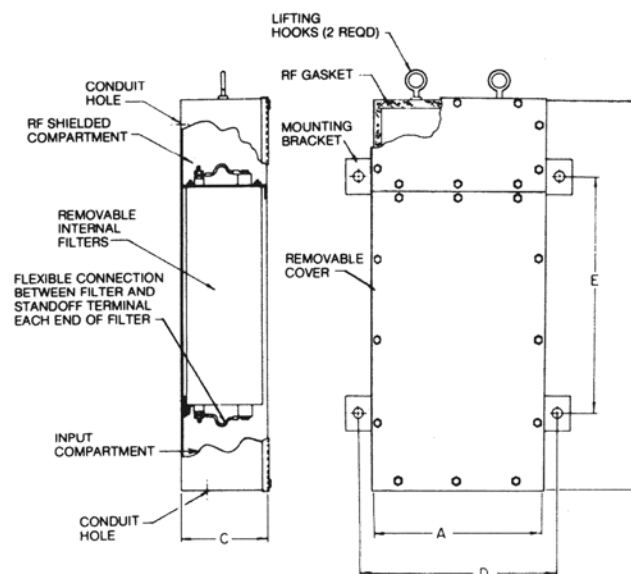
POWER LINE FILTER

ASSEMBLIES FOR

SHIELDED ROOMS

AND SECURE AREAS

100 db FROM 14 KHz to 10 GHz AT FULL LOAD, USING EXTENDED RANGE BUFFER NETWORKS



The RF6700E Series of filters are designed for use in shielded rooms, secure communications areas and high-powered ground and shipboard electronic installations.

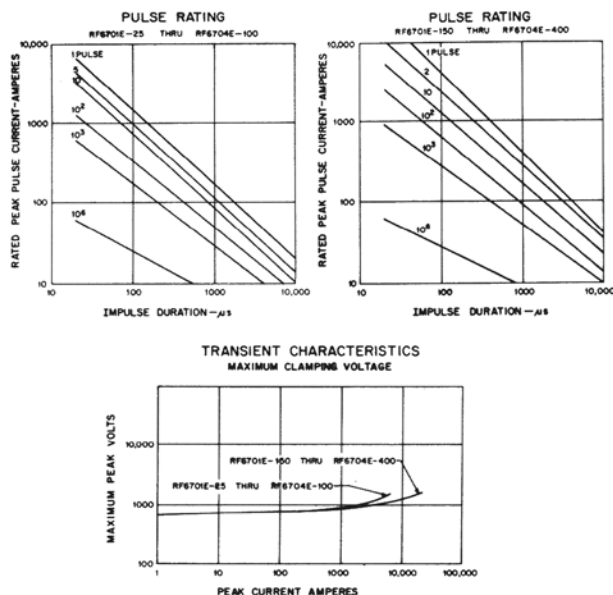
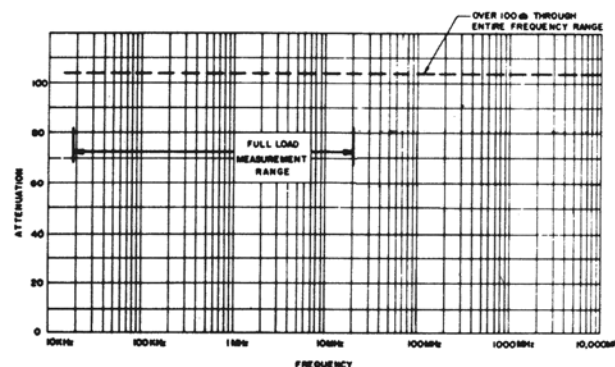
This medium voltage high current filter series incorporates a shunt metal-oxide varistor (MOV) transient suppression element, installed in the filter input compartments and designed to protect equipments from damage due to undesired transient or EMP (Electro-Magnetic Pulse) voltages. The device transient performance and power rating is defined in the electrical specifications and pulse rating curves herein. In addition, these filters will provide high broadband insertion loss to meet RFI/EMI system requirements.

All filters are ruggedly designed and constructed. The hermetically sealed filter cases are continuously seam welded to assure leakproof construction. Individual units are impregnated with non-flammable material as recognized by Underwriters Laboratories. Electrical connection to the filter assembly is made by the installer to a flame retardant plastic stand-off insulator, which is connected by means of a flexible lead to the ceramic filter terminal.

Filter cases are of steel construction, and are adequately plated to resist corrosion. RF tight compartments are gasketed with corrosion-resistant metal mesh. All cases include grounded neutral terminals. The maximum voltage drop at 60 Hz power line frequency is 2 volts.

Filters are provided with bleeder resistors installed in order to prevent electric shock due to accidental discharge of filter capacitors while power is disconnected.

All filters are designed for continuous duty operation at rated conditions, will withstand 140% of rated current for 15 minutes and momentary surges of 10 times rated current.



RFI PART NO.	CURRENT AMPERES	A	B	C	D	E	CONDUIT HOLE DIA.	CLAMPING VOLTAGE MAX. AT 1MADC	ENERGY 10/1000μs JOULES	PEAK CURRENT 8/20 μs A
RF6701E-25	25	12 1/4	45	5	14 1/4	25	1 1/8	540	160	6,500
RF6702E-25	2x25	12 1/4	45	5	14 1/4	25	1 1/8	540	160	6,500
RF6703E-25	3x25	23	45	5	25	25	1 1/8	540	160	6,500
RF6704E-25	4x25	23	45	5	25	25	1 1/8	540	160	6,500
RF6701E-50	50	15 1/2	60	11	17 1/2	36	1 3/8	540	160	6,500
RF6702E-50	2x50	15 1/2	60	11	17 1/2	36	1 3/8	540	160	6,500
RF6703E-50	3x50	25	60	11	27	36	1 3/8	540	160	6,500
RF6704E-50	4x50	25	60	11	27	36	1 3/8	540	160	6,500
RF6701E-100	100	16 1/2	60	11	18 1/2	48	2	540	160	6,500
RF6702E-100	2x100	16 1/2	60	11	18 1/2	48	2	540	160	6,500
RF6703E-100	3x100	25	60	11	27	48	2	540	160	6,500
RF6704E-100	4x100	25	60	11	27	48	2	540	160	6,500
RF6701E-150	150	17 1/2	80	17	19 1/2	48	2 1/2	540	390	20,000
RF6702E-150	2x150	17 1/2	80	17	19 1/2	48	2 1/2	540	390	20,000
RF6703E-150	3x150	25	80	17	27	48	2	540	390	20,000
RF6704E-150	4x150	25	80	17	27	48	2	540	390	20,000
RF6701E-200	200	17 1/2	80	25	19 1/2	48	3	540	390	20,000
RF6702E-200	2x200	17 1/2	80	25	19 1/2	48	3	540	390	20,000
RF6703E-200	3x200	25	80	25	27	48	3	540	390	20,000
RF6704E-200	4x200	25	80	25	27	48	3	540	390	20,000
RF6701E-400	400	24	90	30	29	48	3	540	390	20,000
RF6702E-400	2x400	24	90	30	29	48	3	540	390	20,000
RF6703E-400	3x400	45	90	30	50	48	3	540	390	20,000
RF6704E-400	4x400	45	90	30	50	48	3	540	390	20,000

ALL ABOVE FILTERS RATED FOR 0-60Hz POWER LINE FREQUENCIES.
FILTERS FOR 400 Hz POWER ARE AVAILABLE UPON REQUEST.
VOLTAGE RATING 0-277 VAC LINE-TO-NEUTRAL OR 0-480 VAC LINE-TO-LINE.