

# Solder-in Filters



Solder-in filters are ideal for use in critical areas where space does not allow use of mounting tools or hardware. The solder-in feature also allows installation in unison with other board mounted components. Primarily used in filtering signal/data lines and DC power lines.

## Features

- Small size to allow effective use of space
- Voltage ratings to 750 VDC
- Multiple circuit configurations: C, L & Pi available
- High temperature construction to prevent reflow during installation
- MIL-F-15733 QPL versions available



# Solder-in Filters

## Solder-in C Circuit

Part Number	See Pg. 64 for Fig.	A		B		Rated Voltage 125°C DC	I Amp	Cap*	Minimum Insertion Loss (dB)						
		In	(mm)	In	(mm)				1 MHz	10 MHz	30 MHz	100 MHz	300 MHz	1 GHz	10 GHz
54-786-003	1	0.156	(3.96)	0.203	(5.16)	50	10	0.30 $\mu$ F	32	47	54	60	66	70	70
54-785-002	1	0.125	(3.18)	0.184	(4.67)	100	10	0.05 $\mu$ F (min)	16	33	41	45	48	50	50
54794002X5R101M	4	—	—	—	—	250	25	100 pF $\pm$ 20%	—	—	—	—	10	20	20
54803004X5R101M	3	—	—	—	—	250	25	100 pF $\pm$ 20%	—	—	—	—	10	20	20
54802002X5R101M	2	—	—	—	—	250	25	100 pF $\pm$ 20%	—	—	—	—	10	20	20
† 54794002X5R471M	4	—	—	—	—	250	25	470 pF $\pm$ 20%	—	—	—	12	22	25	25
† 54803004X5R471M	3	—	—	—	—	250	25	470 pF $\pm$ 20%	—	—	—	12	22	25	25
54802002X5R471M	2	—	—	—	—	250	25	470 pF $\pm$ 20%	—	—	—	12	22	25	25
† 54802002X5V102P	2	—	—	—	—	250	25	1000 pF	—	—	—	15	25	35	40
† 54803004X5V102P	3	—	—	—	—	250	25	1000 pF	—	—	—	15	25	35	40
† 54794002X5V102P	4	—	—	—	—	250	25	1000 pF	—	—	—	15	25	35	40
† 54-786-077	5	—	—	—	—	750	10	1000pF	—	4	—	20	25	35	40

† Also available through Spectrum Control's authorized distributors.

\* Tolerances are +100/-0% unless noted.

# Solder-in Filters



## Solder-in Pi Circuit



Figure 1



Figure 2

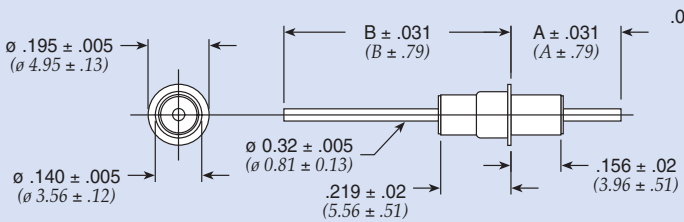


Figure 3

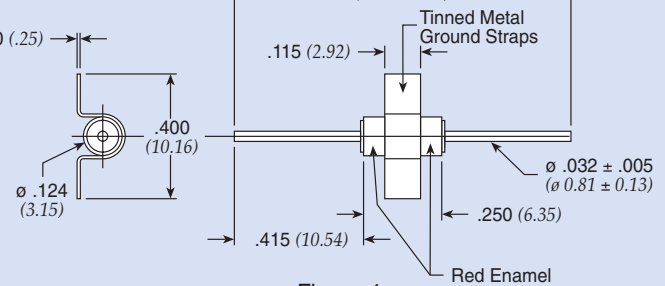


Figure 4

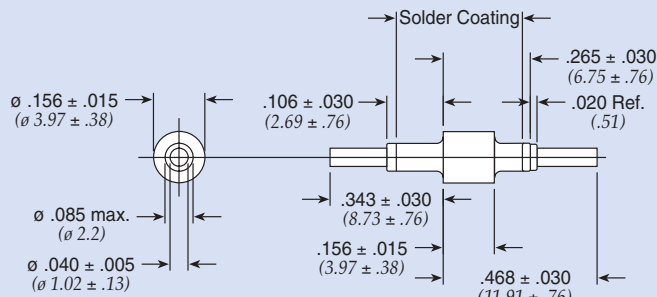


Figure 5

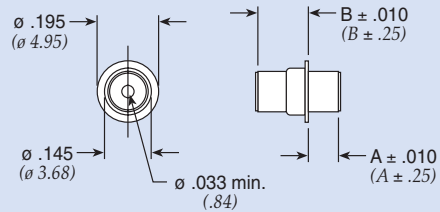


Figure 6



Figure 7



Figure 8

Dimensions in inches (mm)

# Solder-in Filters

## Solder-in Pi Circuit

Part Number	M15733 MIL Number	See Pg. 66 for Fig.	A		B		D		Rated Voltage 125°C		I Amp	Min Cap	Minimum Insertion Loss (dB)						
			In	(mm)	In	(mm)	In	(mm)	DC	AC			1 MHz	10 MHz	30 MHz	100 MHz	300 MHz	1 GHz	10 GHz
			51-703-013*	/62-0003	3	0.312	(7.92)	0.469	(11.91)	0.032			(0.81)	70	—	10	1500 pF	—	5
51-750-309*	/62-0004	2	0.268	(6.81)	0.780	(19.81)	0.032	(0.81)	70	—	10	0.012 µF	5	22	50	70	70	65	65
† 1234-000* €	—	2	0.257	(6.53)	0.780	(19.81)	0.032	(0.81)	70	—	10	0.012 µF	5	25	50	70	70	70	70
51-749-304	—	4	—	—	—	—	—	—	70	—	10	0.012 µF	5	25	50	70	70	65	65
1234-001	—	4	—	—	—	—	—	—	70	—	10	0.012 µF	5	25	50	70	70	65	65
† 51-750-301*	—	2	0.250	(6.35)	0.780	(19.81)	0.032	(0.81)	70	—	10	0.012 µF	5	25	50	70	70	70	70
† 1233-000* €	—	3	0.312	(7.92)	0.780	(19.81)	0.032	(0.81)	70	—	10	0.022 µF	7	35	60	70	70	70	70
† 51-750-302*	—	3	0.312	(7.92)	0.780	(19.81)	0.032	(0.81)	70	—	10	0.022 µF	7	25	60	70	70	70	70
51-750-313	/51-0002	3	0.312	(7.92)	0.780	(19.81)	0.032	(0.81)	70	—	10	0.022 µF	7	25	60	70	70	70	70
† 51-723-303	—	5	—	—	—	—	—	—	200	—	10	1300 pF	—	5	15	30	45	55	55
51-713-010	/62-0002	1	1.140	(28.96)	1.277	(32.44)	0.032	(0.81)	200	—	10	1500 pF	—	5	12	45	50	70	70
† 1251-001 €	—	1	1.109	(28.17)	1.206	(30.63)	0.032	(0.81)	200	—	10	1500 pF	—	5	15	40	50	70	70
51-703-001*	—	3	0.312	(7.92)	0.406	(10.31)	0.032	(0.81)	200	—	10	1500 pF	—	8	17	45	65	70	70
† 1203-050 €	—	3	0.312	(7.92)	0.406	(10.31)	0.032	(0.81)	200	—	10	1500 pF	—	5	15	45	50	70	70
51-703-012*	/62-0001	3	0.312	(7.92)	0.406	(10.31)	0.032	(0.81)	200	140	10	1500 pF	—	3	15	45	50	70	70
51-713-002	—	1	1.103	(28.01)	1.212	(30.78)	0.032	(0.81)	200	—	10	1500 pF	—	5	12	40	70	70	70
1214-029	—	2	0.288	(7.31)	0.780	(19.81)	0.032	(0.81)	200	—	10	1750 pF	—	5	15	50	60	60	70
† 1214-007 €	—	6	0.093	(2.36)	0.157	(3.99)	—	—	200	—	10	1750 pF	—	5	15	35	50	60	60
51-707-002*	—	2	0.288	(7.31)	0.780	(19.81)	0.032	(0.81)	200	—	10	1750 pF	—	8	17	50	65	70	70
† 1214-001*	—	2	0.288	(7.31)	0.780	(19.81)	0.032	(0.81)	200	—	10	1750 pF	—	5	15	50	50	60	60
† 51-707-006*	/33-0001	2	0.288	(7.31)	0.780	(19.81)	0.032	(0.81)	200	90	10	1750 pF	—	5	15	50	50	60	60
51-707-007	/33-0002	2	0.288	(7.31)	0.780	(19.81)	0.032	(0.81)	200	90	10	1750 pF	—	5	15	50	50	60	60
51-707-026	/66-0001	6	0.288	(7.31)	0.157	(3.99)	—	—	200	—	10	1750 pF	—	5	15	35	50	50	50
† 51-750-322	—	2	1.123	(28.52)	1.347	(34.21)	0.040	(1.02)	200	—	10	3000 pF	—	7	25	50	65	65	65
51-703-007*	/51-0001	3	0.312	(7.92)	0.406	(10.31)	0.032	(0.81)	200	200	10	5500 pF	—	15	30	55	65	70	70
1223-012	—	1	0.240	(6.10)	0.360	(9.14)	0.040	(1.02)	200	—	15	3000 pF	—	7	25	50	65	65	65
† 1204-050 €	—	7	0.210	(5.34)	—	—	—	—	500	—	25	3000 pF	—	8	25	50	65	70	70
51-704-002	/40-0001	7	0.234	(5.94)	—	—	—	—	500	350	25	3000 pF	—	7	25	55	65	70	70

\* Denotes parts with turret on one end per Figure 8.  
 † Also available through Spectrum Control's authorized distributors.  
 € Also available through Spectrum Control's authorized European distributors/agents.