



**THE DATASHEET OF  
SFBML5000221MC1**





### Electrical Details

Electrical Configuration	C Filter
Capacitance Measurement	@ 1000hr Point
Current Rating	10A
Insulation Resistance (IR)	10GΩ or 1000ΩF
Temperature Rating	-55°C to +125°C
Ferrite Inductance (Typical)	Not Applicable



### Mechanical Details

Body Flange Diameter	6.35mm (0.250")
Head (A/F)	4.75mm (0.187")
Nut A/F	6.0mm (0.236")
Washer Diameter	9.1mm (0.358")
Mounting Torque	0.6Nm (5.31lbf in) max. if using nut 0.3Nm (2.65lbf in) max. into tapped hole
Mounting Hole Diameter	5.2mm ±0.1 (0.205 ±0.004")
Max. Panel Thickness	4.9mm (0.193")
Weight (Typical)	1.5g (0.05oz)
Finish	Silver plate on copper undercoat

Product Code	Capacitance (±20%) UOS	Dielectric	Rated Voltage (Vdc)	DWV (Vdc)	Typical No-Load Insertion Loss (dB)								
					0.01MHz	0.1MHz	1MHz	10MHz	100MHz	1GHz			
*SFBMC5000100ZC	10pF -20% / +80%	COG/NP0	500#	750	-	-	-	-	-	4			
SFBMC5000150ZC	15pF -20% / +80%				-	-	-	-	-	7			
SFBMC5000220ZC	22pF -20% / +80%				-	-	-	-	-	10			
SFBMC5000330ZC	33pF -20% / +80%				-	-	-	-	-	12			
*SFBMC5000470ZC	47pF -20% / +80%				-	-	-	-	1	15			
*SFBMC5000680MC	68pF				-	-	-	-	2	18			
*SFBMC5000101MC	100pF				-	-	-	-	4	22			
SFBMC5000151MC	150pF				-	-	-	-	7	25			
*SFBMC5000221MC	220pF				-	-	-	-	10	29			
*SFBMC5000331MC	330pF				-	-	-	-	13	33			
*SFBMC5000471MX	470pF				†X7R	-	-	1	16	35			
SFBMC5000681MX	680pF				-	-	-	2	19	36			
*SFBMC5000102MX	1.0nF				X7R	200	500	-	-	-	4	23	41
SFBMC5000152MX	1.5nF							-	-	-	7	26	45
*SFBMC5000222MX	2.2nF	-	-	-				10	30	50			
SFBMC5000332MX	3.3nF	-	-	-				13	33	52			
*SFBMC5000472MX	4.7nF	-	-	1				16	36	55			
SFBMC5000682MX	6.8nF	-	-	2				19	39	57			
*SFBMC5000103MX	10nF	-	-	4				22	41	60			
*SFBMC5000153MX	15nF	-	-	7				25	44	62			
*SFBMC5000223MX	22nF	-	-	10				29	46	65			
SFBMC5000333MX	33nF	-	-	13				33	48	68			
*SFBMC2000473MX	47nF	-	1	16				35	50	70			
SFBMC2000683MX	68nF	-	2	19				39	54	>70			
*SFBMC1000104MX	100nF	-	4	22				41	57	>70			
*SFBMC0500154MX	150nF	-	5	125				7	25	45	60	>70	

# Also rated for operation at 115Vac 400Hz. Self heating will occur - evaluation in situ recommended. \* Recommended values. † Also available in COG/NP0.

### Ordering Information - SFBMC range

SF	B	M	C	500	0102	M	X	0
Type	Case style	Thread	Electrical configuration	Voltage (dc)	Capacitance in picofarads (pF)	Tolerance	Dielectric	Nuts & Washers
Syfer Filter	4.75mm Hex Head	M5	C = C Filter	<b>050</b> = 50V <b>100</b> = 100V <b>200</b> = 200V <b>500</b> = 500V	First digit is 0. Second and third digits are significant figures of capacitance code. The fourth digit is number of zeros following Example: <b>0101</b> = 100pF <b>0332</b> = 3300pF	<b>M</b> = ±20% <b>Z</b> = -20+80%	<b>C</b> = COG/NP0 <b>X</b> = X7R	<b>0</b> = Without <b>1</b> = With

Note: The addition of a 4-digit numerical suffix code can be used to denote changes to the standard part. Options include for example: change of finish / alternative voltage rating / non-standard intermediate capacitance values / test requirements. Please refer specific requests to the factory.



**Electrical Details**

Electrical Configuration	L-C Filter
Capacitance Measurement	@ 1000hr Point
Current Rating	10A
Insulation Resistance (IR)	10GΩ or 1000ΩF
Temperature Rating	-55°C to +125°C
Ferrite Inductance (Typical)	500nH



**Mechanical Details**

Body Flange Diameter	6.35mm (0.250")
Head (A/F)	4.75mm (0.187")
Nut A/F	6.0mm (0.236")
Washer diameter	9.1mm (0.358")
Mounting Torque	0.6Nm (5.31bf in) max. if using nut 0.3Nm (2.65bf in) max. into tapped hole
Mounting Hole Diameter	5.2mm ±0.1 (0.205" ±0.004")
Max. Panel Thickness	4.9mm (0.193")
Weight (Typical)	1.5g (0.05oz)
Finish	Silver plate on copper undercoat

Product Code	Capacitance (±20%) UOS	Dielectric	Rated Voltage (Vdc)	DWV (Vdc)	Typical No-Load Insertion Loss (dB)					
					0.01MHz	0.1MHz	1MHz	10MHz	100MHz	1GHz
*SFBML5000100ZC	10pF -20% / +80%	COG/NPO	500#	750	-	-	-	-	-	6
SFBML5000150ZC	15pF -20% / +80%				-	-	-	-	-	9
SFBML5000220ZC	22pF -20% / +80%				-	-	-	-	-	12
SFBML5000330ZC	33pF -20% / +80%				-	-	-	-	1	15
*SFBML5000470ZC	47pF -20% / +80%				-	-	-	-	2	19
*SFBML5000680MC	68pF				-	-	-	-	4	20
*SFBML5000101MC	100pF				-	-	-	-	7	24
SFBML5000151MC	150pF				-	-	-	-	10	27
*SFBML5000221MC	220pF				-	-	-	-	12	30
*SFBML5000331MC	330pF				-	-	-	1	16	34
*SFBML5000471MX	470pF	†X7R	500#	750	-	-	-	2	19	38
SFBML5000681MX	680pF	-			-	-	3	22	41	
*SFBML5000102MX	1.0nF	X7R			-	-	-	6	25	44
SFBML5000152MX	1.5nF				-	-	-	9	29	48
*SFBML5000222MX	2.2nF				-	-	-	12	31	51
SFBML5000332MX	3.3nF				-	-	-	15	35	54
*SFBML5000472MX	4.7nF				-	-	1	18	39	57
SFBML5000682MX	6.8nF				-	-	2	21	41	60
*SFBML5000103MX	10nF				-	-	4	23	43	63
*SFBML5000153MX	15nF				-	-	7	27	46	66
*SFBML5000223MX	22nF		-	-	10	30	48	68		
SFBML5000333MX	33nF		-	-	13	34	50	70		
*SFBML2000473MX	47nF		200	500	-	1	17	37	51	>70
SFBML2000683MX	68nF		-	2	20	40	55	>70		
*SFBML1000104MX	100nF		100	250	-	4	22	44	60	>70
*SFBML0500154MX	150nF		50	125	-	7	25	47	62	>70

# Also rated for operation at 115Vac 400Hz. Self heating will occur - evaluation in situ recommended. \* Recommended values. † Also available in COG/NPO.

**Ordering Information - SFBML range**

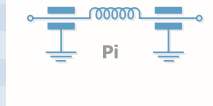
SF	B	M	L	500	0102	M	X	0
Type	Case style	Thread	Electrical configuration	Voltage (dc)	Capacitance in picofarads (pF)	Tolerance	Dielectric	Nuts & Washers
Syfer Filter	4.75mm Hex Head	M5	L = L-C Filter	<b>050</b> = 50V <b>100</b> = 100V <b>200</b> = 200V <b>500</b> = 500V	First digit is 0. Second and third digits are significant figures of capacitance code. The fourth digit is number of zeros following Example: <b>0101</b> = 100pF <b>0332</b> = 3300pF	<b>M</b> = ±20% <b>Z</b> = -20+80%	<b>C</b> = COG/NPO <b>X</b> = X7R	<b>0</b> = Without <b>1</b> = With

Note: The addition of a 4-digit numerical suffix code can be used to denote changes to the standard part. Options include for example: change of finish / alternative voltage rating / non-standard intermediate capacitance values / test requirements. Please refer specific requests to the factory.



### Electrical Details

Electrical Configuration	Pi Filter
Capacitance Measurement	@ 1000hr Point
Current Rating	10A
Insulation Resistance (IR)	10GΩ or 1000ΩF
Temperature Rating	-55°C to +125°C
Ferrite Inductance (Typical)	250nH



### Mechanical Details

Body Flange Diameter	6.35mm (0.250")
Head A/F	4.75mm (0.187")
Nut A/F	6mm (0.236")
Washer Diameter	9.1mm (0.358")
Mounting Torque	0.6Nm (5.31lbf in) max. if using nut 0.3Nm (2.65lbf in) max. into tapped hole
Mounting Hole Diameter	5.2mm ± 0.1 (0.205" ± 0.004")
Max. Panel Thickness	4.9mm (0.193")
Weight (Typical)	1.5g (0.05oz)
Finish	Silver plate on copper undercoat

Product Code	Capacitance (±20%) UOS	Dielectric	Rated Voltage (Vdc)	DWV (Vdc)	Typical No-Load Insertion Loss (dB)					
					0.01MHz	0.1MHz	1MHz	10MHz	100MHz	1GHz
*SFBMP5000200ZC	20pF -20% / +80%	COG/NP0	500#	750	-	-	-	-	1	11
SFBMP5000300ZC	30pF -20% / +80%				-	-	-	2	15	
SFBMP5000440ZC	44pF -20% / +80%				-	-	-	3	19	
SFBMP5000660ZC	66pF -20% / +80%				-	-	-	4	23	
*SFBMP5000940ZC	94pF -20% / +80%				-	-	-	6	29	
*SFBMP500136PMC	136pF				-	-	-	8	35	
*SFBMP5000201MC	200pF				-	-	-	11	41	
SFBMP5000301MC	300pF				-	-	1	15	50	
*SFBMP5000441MC	440pF				-	-	2	20	57	
*SFBMP5000661MC	660pF				-	-	3	25	65	
*SFBMP5000941MX	940pF	X7R	500#	750	-	-	-	5	31	68
SFBMP5001N36MX	1.36nF				-	-	-	7	37	>70
*SFBMP5000202MX	2nF				-	-	-	10	44	>70
SFBMP5000302MX	3nF				-	-	-	13	51	>70
*SFBMP5000442MX	4.4nF				-	-	1	17	59	>70
SFBMP5000662MX	6.6nF				-	-	2	21	64	>70
*SFBMP5000942MX	9.4nF				-	-	4	27	68	>70
SFBMP50013N6MX	13.6nF				-	-	6	34	>70	>70
*SFBMP5000203MX	20nF				-	-	9	40	>70	>70
*SFBMP5000303MX	30nF				-	-	12	48	>70	>70
*SFBMP5000443MX	44nF	-	-	1	14	54	>70	>70		
SFBMP5000663MX	66nF	-	-	2	17	63	>70	>70		
*SFBMP2000943MX	94nF	-	200	500	-	4	18	68	>70	>70
SFBMP200136NMX	136nF	-	-	-	-	8	25	>70	>70	>70
*SFBMP1000204MX	200nF	-	100	250	-	10	27	>70	>70	>70
*SFBMP0500304MX	300nF	-	50	125	-	13	30	>70	>70	>70

# Also rated for operation at 115Vac 400Hz. Self heating will occur - evaluation in situ recommended. \* Recommended values. † Also available in COG/NP0.

### Ordering Information - SFBMP range

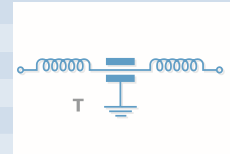
SF	B	M	P	200	0943	M	X	O
Type	Case style	Thread	Electrical configuration	Voltage (dc)	Capacitance in picofarads (pF)	Tolerance	Dielectric	Nuts & Washers
Syfer Filter	4.75mm Hex Head	M5	P = Pi Filter	<b>050</b> = 50V <b>100</b> = 100V <b>200</b> = 200V <b>500</b> = 500V	First digit is 0. Second and third digits are significant figures of capacitance code. The fourth digit is number of zeros following Example: <b>0201</b> = 200pF <b>0943</b> = 94000pF	<b>M</b> = ±20% <b>Z</b> = -20+80%	<b>C</b> = COG/NP0 <b>X</b> = X7R	<b>O</b> = Without Nuts & Washers

Note: The addition of a 4-digit numerical suffix code can be used to denote changes to the standard part. Options include for example: change of finish / alternative voltage rating / non-standard intermediate capacitance values / test requirements. Please refer specific requests to the factory.



**Electrical Details**

Electrical Configuration	T Filter
Capacitance Measurement	@ 1000hr Point
Current Rating	10A
Insulation Resistance (IR)	10GΩ or 1000ΩF
Temperature Rating	-55°C to +125°C
Ferrite Inductance (Typical)	450nH



**Mechanical Details**

Body Flange Diameter	6.35mm (0.250")
Head (A/F)	4.75mm (0.187")
Nut A/F	6.0mm (0.236")
Washer diameter	9.1mm (0.358")
Mounting Torque	0.6Nm (5.31bf in) max. if using nut 0.3Nm (2.65bf in) max. into tapped hole
Mounting Hole Diameter	5.2mm ±0.1 (0.205" ±0.004")
Max. Panel Thickness	4.9mm (0.193")
Weight (Typical)	1.5g (0.05oz)
Finish	Silver plate on copper undercoat

Product Code	Capacitance (±20%) UOS	Dielectric	Rated Voltage (Vdc)	DWV (Vdc)	Typical No-Load Insertion Loss (dB)					
					0.01MHz	0.1MHz	1MHz	10MHz	100MHz	1GHz
*SFBMT5000100ZC	10pF -20% / +80%	COG/NPO	500#	750	-	-	-	-	-	9
SFBMT5000150ZC	15pF -20% / +80%				-	-	-	-	-	11
SFBMT5000220ZC	22pF -20% / +80%				-	-	-	-	1	14
SFBMT5000330ZC	33pF -20% / +80%				-	-	-	-	2	18
*SFBMT5000470ZC	47pF -20% / +80%				-	-	-	-	4	20
*SFBMT5000680MC	68pF				-	-	-	-	6	23
*SFBMT5000101MC	100pF				-	-	-	-	9	27
SFBMT5000151MC	150pF				-	-	-	-	12	30
*SFBMT5000221MC	220pF				-	-	-	-	15	33
*SFBMT5000331MC	330pF				-	-	-	1	19	36
*SFBMT5000471MX	470pF	†X7R	500#	750	-	-	-	2	21	40
SFBMT5000681MX	680pF	-			-	-	4	24	43	
*SFBMT5000102MX	1.0nF	X7R			-	-	-	7	28	47
SFBMT5000152MX	1.5nF				-	-	-	10	30	50
*SFBMT5000222MX	2.2nF				-	-	-	13	34	53
SFBMT5000332MX	3.3nF				-	-	-	17	38	57
*SFBMT5000472MX	4.7nF				-	-	-	19	40	59
SFBMT5000682MX	6.8nF				-	-	1	23	43	63
*SFBMT5000103MX	10nF				-	-	4	26	45	66
*SFBMT5000153MX	15nF				-	-	7	29	47	68
*SFBMT5000223MX	22nF		-	-	10	33	49	70		
SFBMT5000333MX	33nF		-	-	14	36	50	>70		
*SFBMT2000473MX	47nF		200	500	-	1	17	39	52	>70
SFBMT2000683MX	68nF		-	2	20	42	57	>70		
*SFBMT1000104MX	100nF		100	250	-	4	22	46	62	>70
*SFBMT0500154MX	150nF		50	125	-	7	25	49	68	>70

# Also rated for operation at 115Vac 400Hz. Self heating will occur - evaluation in situ recommended. \* Recommended values. † Also available in COG/NPO.

**Ordering Information - SFBMT range**

SF	B	M	T	500	0102	M	X	0
Type	Case style	Thread	Electrical configuration	Voltage (dc)	Capacitance in picofarads (pF)	Tolerance	Dielectric	Nuts & Washers
Syfer Filter	4.75mm Hex head	M5	T = T Filter	<b>050</b> = 50V <b>100</b> = 100V <b>200</b> = 200V <b>500</b> = 500V	First digit is 0. Second and third digits are significant figures of capacitance code. The fourth digit is number of zeros following Example: <b>0101</b> = 100pF <b>0332</b> = 3300pF	<b>M</b> = ±20% <b>Z</b> = -20+80%	<b>C</b> = COG/NPO <b>X</b> = X7R	<b>0</b> = Without

Note: The addition of a 4-digit numerical suffix code can be used to denote changes to the standard part. Options include for example: change of finish / alternative voltage rating / non-standard intermediate capacitance values / test requirements. Please refer specific requests to the factory.

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