

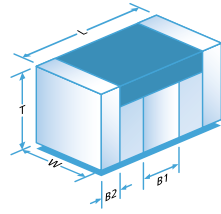


**THE DATASHEET OF  
SBSPP1000103MXR**



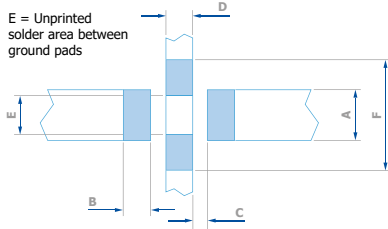
**Dimensions**

L	3.20±0.3 (0.126"±0.012")
W	1.65±0.3 (0.065"±0.012")
T	1.60±0.20 (0.063"±0.008")
B1	0.95±0.3 (0.037"±0.012")
B2	0.50±0.25 (0.020"±0.010")



**Suggested mounting pad details**

E = Unprinted solder area between ground pads

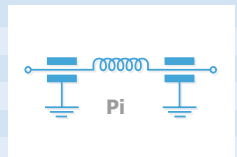


A	1.20 (0.047")
B	0.90 (0.035")
C	0.60 (0.024")
D	0.80 (0.030")
E	1.00 (0.039")
F	2.90 (0.114")

It is recommended that designers independently confirm pad dimensions are acceptable, particularly with respect to higher working voltages.

**Electrical Details**

Electrical Configuration	Pi Filter
Capacitance Measurement	@ 1000hr Point
Current Rating	1A
Insulation Resistance (IR)	10GΩ or 1000ΩF
Temperature Rating	-55°C to +125°C
Ferrite Inductance (Typical)	0.30μH (@ 1MHz)



**Mechanical Details**

Terminals & Finish - End & Side	Sn plated over FlexiCap™ Termination
Construction	Ceramic Multi Layer Chip Capacitor Multi Layer Ferrite Bead Inductor Connection via FlexiCap™ Termination
Weight (Typical)	0.07g (0.0025oz)

**Reeled quantities**

	<b>SBSPP</b>
178mm (7") reel	1500

Product Code	Capacitance (±20%)	Dielectric	Rated Voltage (dc)	DWV (dc)	Approximate Resonant Frequency (MHz)	Typical No-Load Insertion Loss (dB)*				
						0.1MHz	1MHz	10MHz	100MHz	1GHz
SBSPP1000220MC	22pF	COG/NPO	100	250	1000	0	0	0	2	22
SBSPP1000470MC	47pF		100	250	620	0	0	0	4	16
SBSPP1000101MC	100pF		100	250	400	0	0	0	7	14
SBSPP1000221MC	220pF		100	250	260	0	0	1	14	12
SBSPP1000471MC	470pF		100	250	180	0	0	2	25	16
SBSPP1000102MX	1.0nF	X7R	100	250	120	0	0	4	37	16
SBSPP1000152MX	1.5nF		100	250	90	0	0	7	37	16
SBSPP1000222MX	2.2nF		100	250	72	0	0	9	37	16
SBSPP1000332MX	3.3nF		100	250	59	0	1	13	37	16
SBSPP1000472MX	4.7nF		100	250	50	0	2	14	37	16
SBSPP1000682MX	6.8nF		100	250	38	0	4	24	37	16
SBSPP1000103MX	10nF		100	250	33	0	5	24	37	16
SBSPP1000153MX	15nF		100	250	26	0	8	32	37	16
SBSPP0500223MX	22nF		50	125	21	0	10	38	37	16
SBSPP0500333MX	33nF		50	125	17	1	13	46	37	16
SBSPP0500473MX	47nF		50	125	13	2	16	50	37	16
SBSPP0500683MX	68nF		50	125	10	3	20	54	37	16
SBSPP0500104MX	100nF		25	67.5	8.5	6	19	52	37	16
SBSPP0500154MX	150nF		25	67.5	7	8	24	56	37	16

\* Insertion Loss performance quoted is measured on an open FR4 board mounted on a brass backplane in a 50Ω system. Performance curves can be supplied on request. Performance in circuit is liable to be different and is affected by board material, track layout, grounding efficiency and circuit impedances. Shielding can be used to improve high frequency performance.

**Ordering Information - SBSPP range**



SB	S	P	P	100	0153	M	X	B
Type	Case style	Size	Electrical configuration	Voltage (dc)	Capacitance in picofarads (pF)	Tolerance	Dielectric	Packaging
Syfer Board Filter	Surface Mount	Size Code P (nominally 1206)	P = Pi Filter	025 = 25V 050 = 50V 100 = 100V	First digit is 0. Second and third digits are significant figures of capacitance code. The fourth digit is number of zeros following Example: 0472 = 4700pF 0153 = 15000pF	M = ±20%	C = COG/NPO X = X7R	T=178mm (7") reel R=330mm (13") reel B = Bulk

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.

## Looking for pricing, stock, or lifecycle information?

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-  [Knowles Syfer Information](#)

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