



**THE DATASHEET OF  
SBSGC5000223MXT**



### Dimensions

L1	4.55±0.25 (0.179"±0.010")
L2	4.70±0.4 (0.185"±0.015")
W	3.20±0.2 (0.126"±0.008")
T	2.50±0.15 (0.098"±0.006")
B1	1.50±0.4 (0.059"±0.015")
B2	0.30±0.25 (0.012"±0.010")

■ Tin plated solderable termination area  
■ Solder joint from filter manufacture

### Suggested mounting pad details

E = Unprinted solder area between ground pads

A	2.65 (0.104")
B	1.40 (0.055")
C	0.08 (0.031")
D	1.40 (0.055")
E	2.05 (0.080")
F	5.80 (0.228")

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

### 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)	N/A

### Mechanical Details

Terminals & Finish - End	SnAg solder over Sn Plate
Terminals & Finish - Side	Sn Plated
Reflow Temperature	220°C max.
Construction	Ceramic Multi Layer Chip Capacitor Copper Alloy Through Conductor Soldered End Connections
Weight (Typical)	0.20g (0.007oz)

Reeled quantities	SBSGC
178mm (7") reel	500

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
SBSGC5000102MX	1.0nF	X7R	500	750	186	0	0	5	23	18
SBSGC5000152MX	1.5nF		500	750	147	0	0	8	27	18
SBSGC5000222MX	2.2nF		500	750	130	0	0	11	32	18
SBSGC5000332MX	3.3nF		500	750	110	0	1	14	34	18
SBSGC5000472MX	4.7nF		500	750	100	0	2	17	40	18
SBSGC5000682MX	6.8nF		500	750	80	0	4	20	38	18
SBSGC5000103MX	10nF		500	750	62.5	0	5	24	38	18
SBSGC5000153MX	15nF		500	750	50	0	8	27	38	18
SBSGC5000223MX	22nF		500	750	39	0	11	32	39	18
SBSGC5000333MX	33nF		500	750	33	1	14	34	39	18
SBSGC5000473MX	47nF		500	750	28	2	17	36	39	18
SBSGC2000683MX	68nF		200	500	23	3	20	37	39	18
SBSGC1000104MX	100nF		100	250	19	5	23	41	39	18
SBSGC1000154MX	150nF		100	250	15.5	8	27	47	39	18
SBSGC0500224MX	220nF		50	125	13	11	30	49	39	18

\* 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 - SBSGC range

SB	S	G	C	500	0473	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 <b>G</b> (nominally 1812)	<b>C</b> = 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>0472</b> = 4700pF <b>0683</b> = 68000pF	<b>M</b> = ±20%	<b>X</b> = X7R	<b>T</b> = 178mm (7") reel <b>R</b> = 330mm (13") reel <b>B</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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