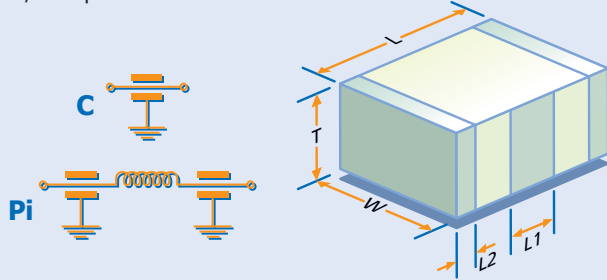


# Surface Mount EMI Filters

## Surface Mount C and Pi Filters

**SBSM**

The SBSM range of surface mount EMI filters has been designed for use on pcbs, and is suitable for both signal and power lines. Capacitance values up to 470nF are available, with a 10A current rating for pi-section filters and 20A rating for 'C' types. The high capacitance, high current and high voltage ratings make them suitable for a wide range of applications including telecoms, mil/aerospace and industrial.



### Specifications

	mm	(inches)
<b>L</b>	6.6 ± 0.4	(0.260 ± 0.015)
<b>W</b>	5.0 ± 0.4	(0.197 ± 0.015)
<b>T</b>	3.18 ± 0.13	(0.125 ± 0.005)
<b>L1</b>	2.25 ± 0.4	(0.088 ± 0.015)
<b>L2</b>	0.3 ± 0.25	(0.012 ± 0.01)

### Electrical Configuration

C & Pi Filters

### Capacitance Measurement

At 1000hr point

### Current Rating

Pi Section 10 amps dc  
C Section 20 amps dc

### Temperature Rating

-55°C to 125°C

### DC Resistance

0.005 ohms max

### Ferrite Inductance, typical

0.5µH (Pi section only)  
0.5g typical (0.18oz)

Type No.	Capacitance	Dielectric	Rated	DWV	Typical Insertion Loss (dB) 50 ohm System No Load									
( * = Preferred Value)	(M = +/-20%)	Code	Voltage	(Vd.c.)	C Section					Pi Section				
			(Vd.c.)		0.1MHz	1MHz	10MHz	100MHz	1GHz	0.1MHz	1MHz	10MHz	100MHz	1GHz
* SBSM#1 5000102MX#2	1.0nF	X7R	500	750	0	0	4	23	41	0	0	5	33	60+
SBSM#1 5000152MX#2	1.5nF	X7R	500	750	0	0	7	26	45	0	0	9	40	60+
* SBSM#1 5000222MX#2	2.2nF	X7R	500	750	0	0	10	30	50	0	0	11	47	60+
* SBSM#1 5000332MX#2	3.3nF	X7R	500	750	0	0	13	33	52	0	0	14	54	60+
* SBSM#1 5000472MX#2	4.7nF	X7R	500	750	0	1	16	36	55	0	1	19	57	60+
SBSM#1 5000682MX#2	6.8nF	X7R	500	750	0	2	19	39	57	0	2	24	60+	60+
* SBSM#1 5000103MX#2	10nF	X7R	500	750	0	4	22	41	60+	0	5	29	60+	60+
* SBSM#1 5000153MX#2	15nF	X7R	500	750	0	7	25	44	60+	0	7	36	60+	60+
* SBSM#1 5000223MX#2	22nF	X7R	500	750	0	10	29	46	60+	0	11	42	60+	60+
SBSM#1 5000333MX#2	33nF	X7R	500	750	0	13	33	48	60+	0	14	51	60+	60+
* SBSM#1 5000473MX#2	47nF	X7R	500	750	1	16	35	50	60+	1	16	57	60+	60+
SBSM#1 5000683MX#2	68nF	X7R	500	750	2	19	39	54	60+	3	19	60+	60+	60+
* SBSM#1 2000104MX#2	100nF	X7R	200	500	4	22	41	57	60+	5	21	60+	60+	60+
SBSM#1 2000154MX#2	150nF	X7R	200	500	7	25	45	60+	60+	8	23	60+	60+	60+
* SBSM#1 1000224MX#2	220nF	X7R	100	250	10	29	49	60+	60+	11	27	60+	60+	60+
* SBSM#1 1000334MX#2	330nF	X7R	100	250	13	33	52	60+	60+	14	35	60+	60+	60+
* SBSM#1 0500474MX#2	470nF	X7R	50	125	16	35	55	60+	60+	17	41	60+	60+	60+

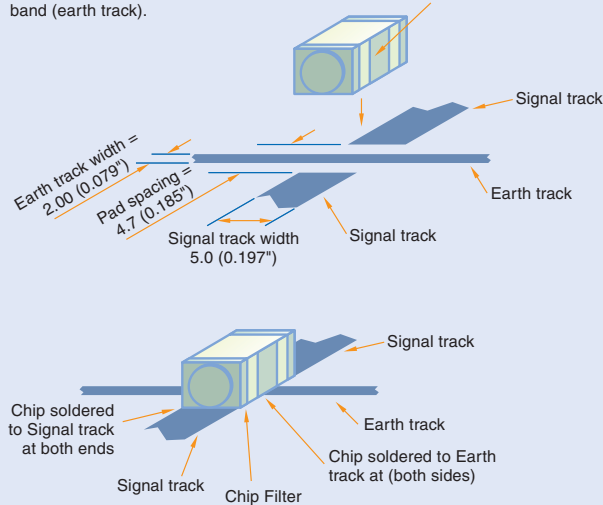
**Note #1** For C Filter insert "C", for Pi Filter insert "P". **Note #2** For taping on 7" reel insert "T", on 13" reel insert "R", if supplied in bulk insert "B". Insertion loss figures quoted are for filters mounted within a partition. It should be noted that some degradation will occur at higher frequencies for filters which are not fully shielded.

### SBSM

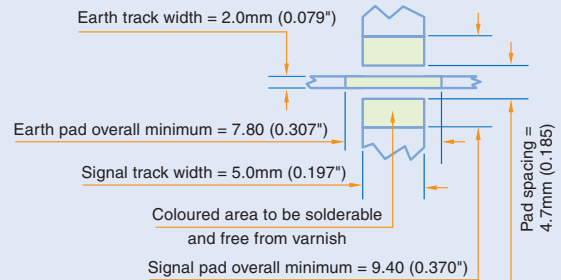
SM Pi or C filter mounted to board and soldered in identical manner to chip capacitor.

Solder connections made to each end (signal lines) and each side band (earth track).

Side bands provide earth contact points. Bands are formed on the sides of the chip only and are not continuous underneath the chip. Solder joints must be made to both side bands to ensure effective filtering.



### PAD DIMENSIONS - Pi Filter



### PAD DIMENSIONS - C Filter

