



# SP Series

- Super Low ESR at a high frequency range
- High ripple current capability
- 2,000 hours at 105°C



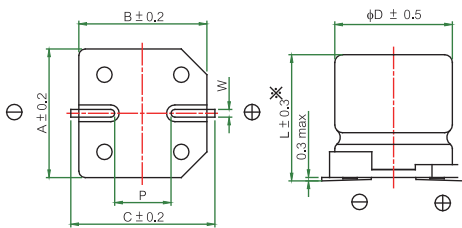
## SPECIFICATIONS

Item	Performance Characteristics	
Category Temperature Range	-55 ~ +105°C	
Working Voltage Range	2.5 ~ 25Vdc	
Surge Voltage	Rated Voltage x1.15	
Capacitance Tolerance	M: ±20% (at 25°C and 120Hz)	
ESR	See the standard ratings table (at 25°C, 100~300KHz)	
Dissipation Factor (Tanδ)	See the standard ratings table (at 25°C, 120Hz)	
Leakage Current ※1	See the standard ratings table.(Impress the rated voltage for 2 minutes)	
Low Temperature Characteristics Impedance Ratio	Z(-25°C)/Z(+25°C) ≤1.15 at 100KHz Z(-55°C)/Z(+25°C) ≤1.25 at 100KHz	
Endurance	The following specifications shall be satisfied when the capacitors are restored to 25°C after subjected to DC voltage with the rated ripple current is applied for 2,000 hours at 105°C	
	Capacitance change	≤ ±20% of the initial value
	ESR	≤ 150% of the specified value
	Dissipation factor(tanδ)	≤ 150% of the specified value
	Leakage current	≤ specified value
Damp Heat (Steady State)	The following requirements shall be satisfied when the capacitor are restored to 25°C after exposing them for 1,000 hours at 60°C 90 to 95% RH	
	Capacitance change	≤ ±20% of the initial value
	ESR	≤ 150% of the specified value
	Dissipation factor(tanδ)	≤ 150% of the specified value
	Leakage current	≤ specified value

※1 In case of some problems for measured values, measure after applying rated voltage for 120 minutes at 105°C

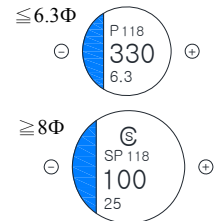
※2 ESR should be measured at both of the terminal ends closest to the capacitor body

## DIMENSIONS

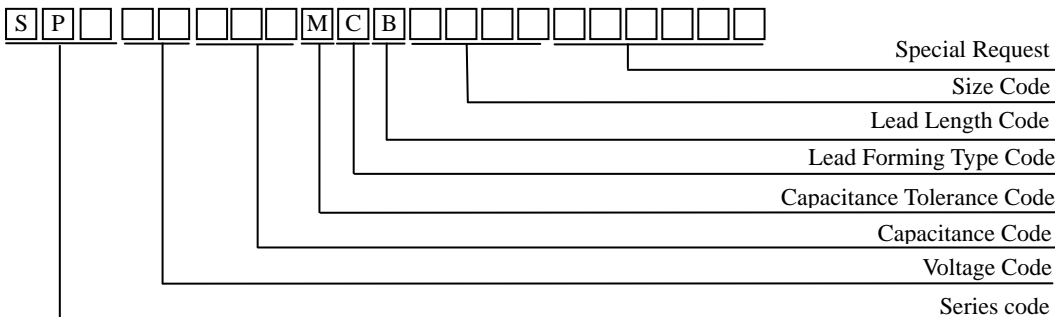


Code	Case Size	ΦD	L	A	B	C	W	P
5057	5×5.7	5	5.7	5.3	5.3	5.9	0.5~0.8	1.4
6343	6.3×4.3	6.3	4.3	5.6	6.6	7.3	0.5~0.8	2.1
6357	6.3×5.7	6.3	5.7	5.6	6.6	7.3	0.5~0.8	2.1
8067	8×6.7	8	6.7	8.3	8.3	9	0.7~1.1	3.2
8097	8×9.7	8	9.7	8.3	8.3	9	0.7~1.1	3.2
1077	10×7.7	10	7.7	10.3	10.3	11	0.7~1.1	4.6
1124	10×12.4	10	12.4	10.3	10.3	11	0.7~1.1	4.6

## Marking



## PART NUMBER SYSTEM





## SP Series

◆ Standard Ratings

Rated Voltage (Vdc)	Rated Capacitance (μF)	Case Size ΦD×L (mm)	ESR 100~300KHz (mΩ max)	Rated Ripple Current 105°C, 100KHz (mArms max)	Tan δ max	Leakage Current (μA max)	Part Number
2.5(0E)	180	5×5.7	21	2670	0.12	300	SP0E181MCB5057
	330	5×5.7	15	3150	0.12	300	SP0E331MCB5057
	330	6.3×4.3	17	3500	0.12	413	SP0E331MCB6343
	330	6.3×4.3	12	3500	0.12	700	SP0E331MCB6343E
	390	6.3×5.7	15	3160	0.12	344	SP0E391MCB6357
	560	6.3×5.7	16	3600	0.12	420	SP0E561MCB6357
	560	6.3×5.7	10	3870	0.12	500	SP0E561MCB6357E
	680	8×6.7	13	4100	0.12	510	SP0E681MCB8067
	820	8×7.7	12	4260	0.12	615	SP0E821MCB8077
	1000	8×7.7	12	4260	0.12	750	SP0E102MCB8077
	2700	10×12.4	12	5070	0.12	2025	SP0E272MCB1124
4(0G)	330	6.3×5.7	15	3160	0.12	396	SP0G331MCB6357
	1500	8×11.7	12	4700	0.12	1800	SP0G152MCB8117
6.3(0J)	100	5×5.7	24	2500	0.12	300	SP0J101MCB5057
	120	5×5.7	24	2500	0.12	300	SP0J121MCB5057
	220	6.3×4.3	17	3160	0.12	693	SP0J221MCB6343
	220	6.3×5.7	15	3160	0.12	416	SP0J221MCB6357
	330	6.3×5.7	17	3600	0.12	624	SP0J331MCB6357
	470	8×11.7	15	3950	0.12	888	SP0J471MCB8117
10(1A)	330	8×11.7	17	3950	0.12	990	SP1A331MCB8117
16(1C)	100	6.3×5.7	24	2490	0.12	320	SP1C101MCB6357
	180	8×9.7	16	3890	0.12	576	SP1C181MCB8097
	270	8×9.7	16	3890	0.12	864	SP1C271MCB8097
25(1E)	47	6.3×5.7	30	2500	0.12	588	SP1E470MCB6357
	100	8×9.7	24	3300	0.12	500	SP1E101MCB8097
	120	8×9.7	22	3500	0.12	600	SP1E121MCB8097