

CONDUCTIVE POLYMER ALUMINUM SOLID CAPACITORS



VSP Series

- 2021 Change series code SP → VSP
- Super Low ESR at a high frequency range
- High ripple current capability
- 2,000 hours at 105°C

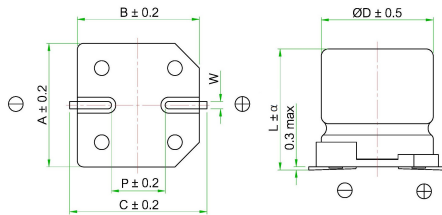


◆ SPECIFICATIONS

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 <table border="1" style="margin-left: 20px;"> <tr> <td>Capacitance change</td> <td>≤ ±20% of the initial value</td> </tr> <tr> <td>ESR</td> <td>≤ 150% of the specified value</td> </tr> <tr> <td>Dissipation factor(tanδ)</td> <td>≤ 150% of the specified value</td> </tr> <tr> <td>Leakage current</td> <td>≤ specified value</td> </tr> </table>	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
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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 <table border="1" style="margin-left: 20px;"> <tr> <td>Capacitance change</td> <td>≤ ±20% of the initial value</td> </tr> <tr> <td>ESR</td> <td>≤ 150% of the specified value</td> </tr> <tr> <td>Dissipation factor(tanδ)</td> <td>≤ 150% of the specified value</td> </tr> <tr> <td>Leakage current</td> <td>≤ specified value</td> </tr> </table>	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
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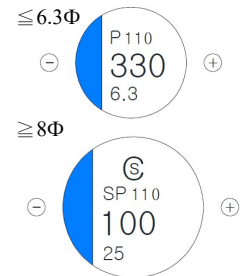
※1 In case of some problems for measured values, measure after applying rated voltage for 120 minutes at 105°C
 ※2 ESR should be measured at both of the terminal ends closest to the capacitor body

◆ DIMENSIONS

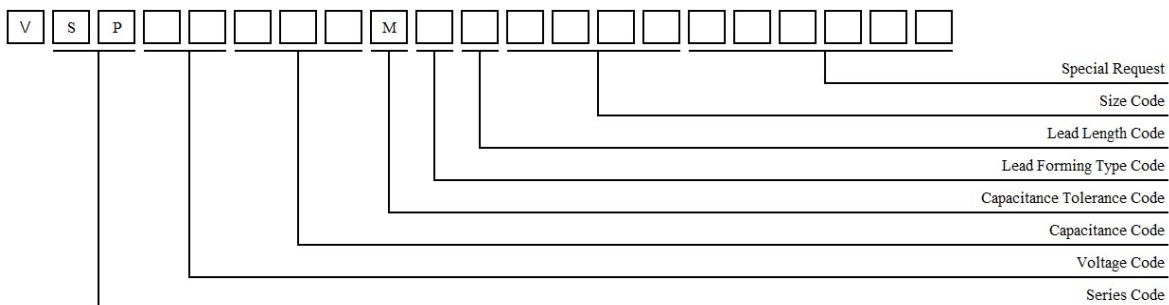


	Case Size	ΦD	L	α	A	B	C	W	P
0557	5×5.7	5	5.7	0.3	5.3	5.3	5.9	0.5~0.8	1.4
6343	6.3×4.3	6.3	4.3	+0.4 -0.3	6.6	6.6	7.3	0.5~0.8	2.1
6357	6.3×5.7	6.3	5.7	0.3	6.6	6.6	7.3	0.5~0.8	2.1
0867	8×6.7	8	6.7	0.3	8.3	8.3	9	0.7~1.1	3.2
0897	8×9.7	8	9.7	0.5	8.3	8.3	9	0.7~1.1	3.2
1077	10×7.7	10	7.7	0.5	10.3	10.3	11	0.7~1.1	4.6
10C4	10×12.4	10	12.4	0.5	10.3	10.3	11	0.7~1.1	4.6

◆ Marking



◆ PART NUMBER SYSTEM





VSP 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	VSP0E181MCB0557
	330	5×5.7	15	3150	0.12	300	VSP0E331MCB0557
	330	6.3×4.3	17	3500	0.12	413	VSP0E331MCB6343
	330	6.3×4.3	12	3500	0.12	700	VSP0E331MCB6343E
	390	6.3×5.7	15	3160	0.12	344	VSP0E391MCB6357
	560	6.3×5.7	16	3600	0.12	420	VSP0E561MCB6357
	560	6.3×5.7	10	3870	0.12	500	VSP0E561MCB6357E
	680	8×6.7	13	4100	0.12	510	VSP0E681MCB0567
	2700	10×12.4	12	5070	0.12	2025	VSP0E272MCB10C4
4(0G)	330	6.3×5.7	15	3160	0.12	396	VSP0G331MCB6357
	1500	8×12.7	12	4700	0.12	1800	VSP0G152MCB08C7
6.3(0J)	100	5×5.7	24	2500	0.12	300	VSP0J101MCB0557
	120	5×5.7	24	2500	0.12	300	VSP0J121MCB0557
	220	5×5.7	12	3500	0.12	700	VSP0J221MCB0557
	220	6.3×4.3	17	3160	0.12	693	VSP0J221MCB6343
	220	6.3×4.3	18	3000	0.12	500	VSP0J221MCB6343L
	220	6.3×5.7	15	3160	0.12	416	VSP0J221MCB6357
	330	6.3×5.7	17	3600	0.12	624	VSP0J331MCB6357
	470	8×12.7	15	3950	0.12	888	VSP0J471MCB08C7
	560	6.3×9	10	4700	0.12	706	VSP0J561MCB6309
10(1A)	330	8×12.7	17	3950	0.12	990	VSP1A331MCB08C7
16(1C)	100	6.3×5.7	24	2490	0.12	320	VSP1C101MCB6357
	180	8×9.7	16	3890	0.12	576	VSP1C181MCB0897
	270	6.3×9	9	5300	0.12	864	VSP1C271MCB6309
	270	8×9.7	16	3890	0.12	864	VSP1C271MCB0897
25(1E)	47	6.3×5.7	30	2500	0.12	588	VSP1E470MCB6357
	100	8×9.7	24	3300	0.12	500	VSP1E101MCB0897
	120	8×9.7	22	3500	0.12	600	VSP1E121MCB0897

PART NUMBER SYSTEM

◆ RADIAL LEAD TYPE

Series	Rated Voltage	Capacitance	Tolerance	Lead Forming Type	Lead Length	Case Dimension	Special Request
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
□ □ □	□ □	□ □ □	□	□	□	□ □ □ □	□ □ □ □ □ □

(1) Series

Series	DIP	UPS	UPR	UUL	UPE	URP	URH	UGP	UGV	UGS	UPC
	SMD	VSG	VSP	VSU	VSE						

(2) Rated Voltage

Code	0E	0J	6K	7H	1A	1B	AG	1C	1D	1P	1E	1F	1V	1H	1J	2A
WV	2.5	6.3	6.8	7.5	10	12	14	16	20	22	25	30	35	50	63	100

(3) Capacitance

Code	6R8	100	180	560	101	181	561	102	182
μF	6.8	10	18	56	100	180	560	1000	1800

(4) Capacitance Tolerance

Code	J	Q	R	K	V	M	H
%	± 5	+30 / -10	+20 / -0	± 10	+20 / -10	± 20	+20 / -5

(5) Lead Type

Code	C	P
Description	Cutting	Taping
Drawing	Fig 1	Fig 2

(6) Lead Length (Cut / Formed lead)

Code	3	4	U	7	D	X	R	B	E	G	2	M	T	N
Length	3.5	4.5	5.5	7	4	2.3	2.5	2.8	3.1	3.3	2.5	3.5	3.8	+20mm min
Tolerance	±0.5			±0.2			±0.3			-15mm min				

Taping Code

Code	Z	2	3	7	5	S
Lead Pitch: +0.8/-0.2	2.0	2.5	3.5	3.5	5.0	5.0

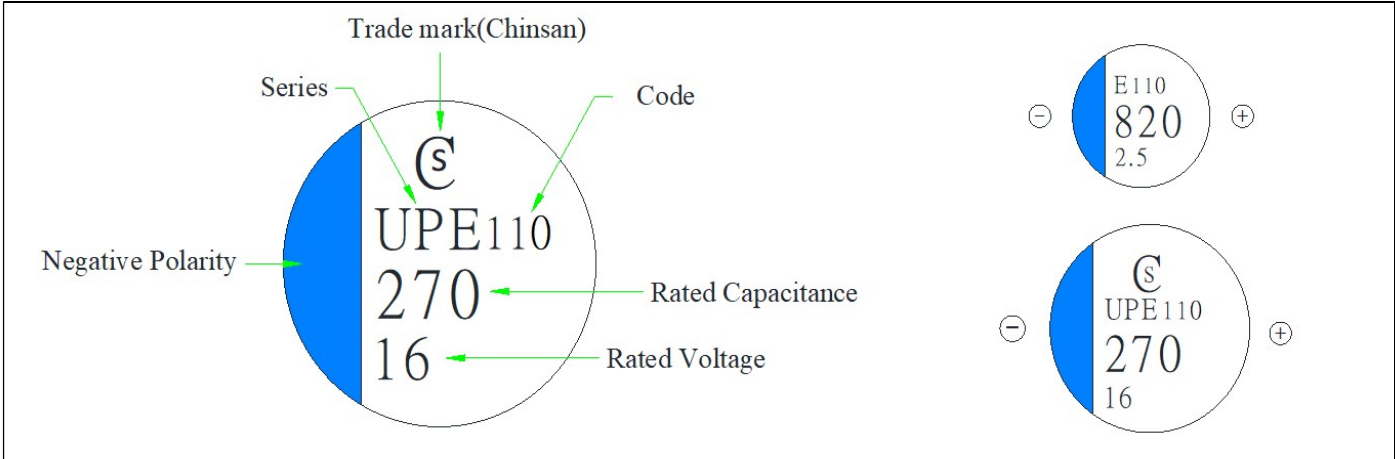
(7) Case Dimension

DIP Code	0508	6305	6308	6311	0807	0808	0811	0816	0820	1012	1016	1020
Size	5×8	6.3×5	6.3×8	6.3×11	8×7	8×8	8×11	8×16	8×20	10×12	10×16	10×20
SMD Code	0557	6343	6357	6377	6309	0867	0897	08C7	1077	10C4		
Size	5×5.7	6.3×4.3	6.3×5.7	6.3×7.7	6.3×9	8×6.7	8×9.7	8×12.7	10×7.7	10×12.4		

(8) Special Request

Code	R	F	L	D
Description	High Rated ripple current	Endurance	Low Leakage Current	Low Dissipation Factor
Code	U	E	---	---
Description	Convex Rubber	Low ESR	---	---

◆ MARKING AND DATE CODE



Trade Mark "CS" Chinsan Solid Capacitor, Show on Dimension $\geq 8 \Phi$

Code (Date Code)

(1) (2) (3)

1	1	0
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(1)DAY

Code	1	2	3	4	5
Week	The first week	The second week	The third week	The fourth week	The fifth week

(2)Month

Code	1	2	3	4	5	6
Month	Jan	Feb	Mar	Apr	May	Jun
Code	7	8	9	X	Y	Z
Month	July	Aug	Sep	Oct	Nov	Dec

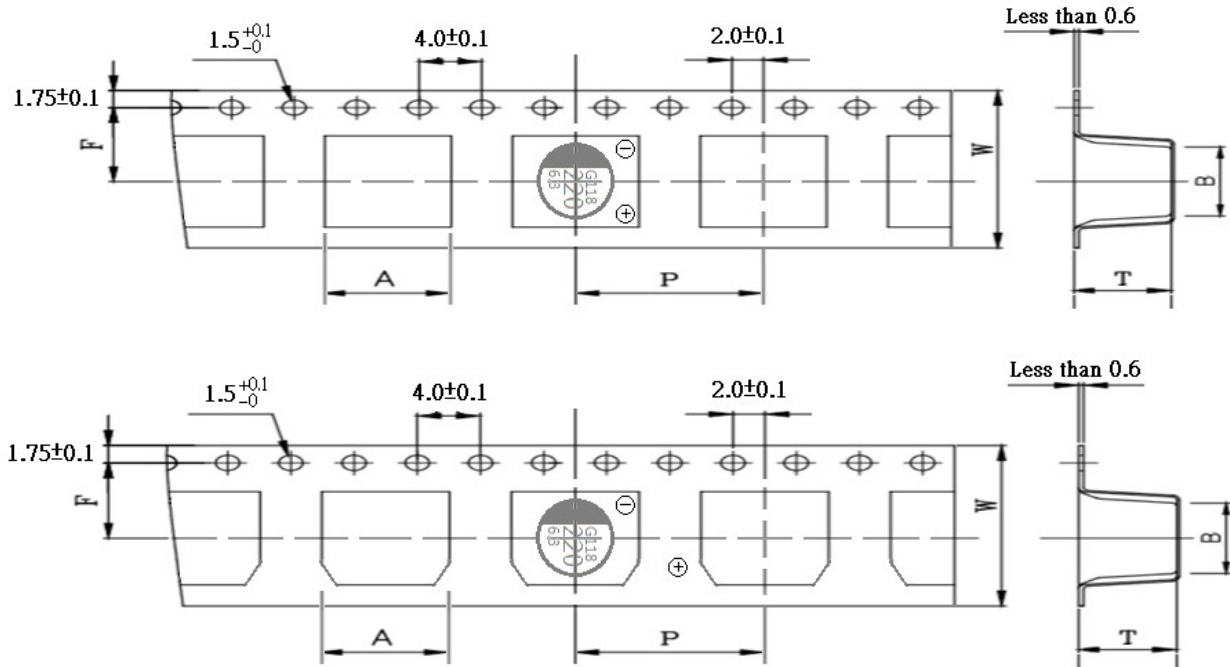
(3)Year

Code	9	0	1	2	3	4
Year	2019	2020	2021	2022	2023	2024

Series (Print Code)

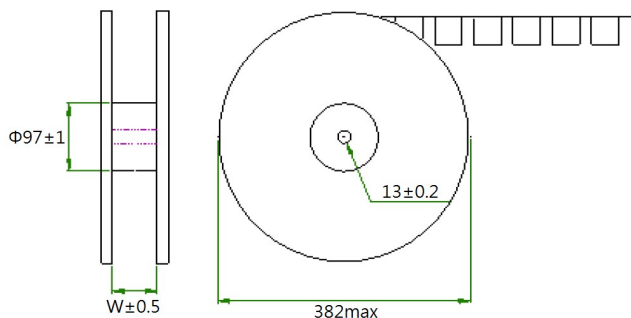
Series	UPS	UPR	UUL	UPE	URP	URH	UGP	UGV	UGS	UPC	VSG	VSP	VSU	VSE
$\Phi 5 \sim \Phi 6.3$	--	R	L	E	--	H	P	V	--	C	G	P	U	E
$\Phi 8 \sim \Phi 10$	UPS	--	UL	UPE	RP	RH	GP	GV	GS	UPC	SG	SP	SU	SE

SMD CARRIER TAPE DIMENTIONS



Dimension Code	Item	W	A	B	F	P	T
		±0.3	±0.2	±0.2	±0.1	±0.1	±0.2
5057 (5x5.7)		16	5.6	5.6	7.5	12	6.2
6343 (6.3x4.3)		16	7.0	7.0	7.5	12	4.7
6357 (6.3x5.7)		16	7.0	7.0	7.5	12	6.2
6377 (6.3x7.7)		16	7.0	7.0	7.5	12	8.2
6309 (6.3x9)		16	7.0	7.0	7.5	12	10.0
0867 (8x6.7)		24	8.7	8.7	11.5	12	7.2
0897 (8x9.7)		24	8.7	8.7	11.5	16	10.3
08C7 (8x12.7)		24	8.7	8.7	11.5	16	13.2
1077 (10x7.7)		24	10.7	10.7	11.5	16	8.3
10C4 (10x12.4)		24	10.7	10.7	11.5	16	13.0

◆ SMD REEL DIMENTIONS AND PACKING QUANTITY



Case Code	Quantity per reel	Quantity per Box※	W
5057	1200	12000	17.5
6343	1500	15000	
6357	1200	12000	
6377	1000	10000	
6309	800	8000	
0867	1000	7000	25.3
0897	500	3500	
08C7	400	2800	
1077	500	3500	
10C4	400	2800	

※ This may change according to a delivered quantity