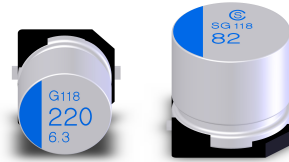


CONDUCTIVE POLYMER ALUMINUM SOLID CAPACITORS



VSG Series

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



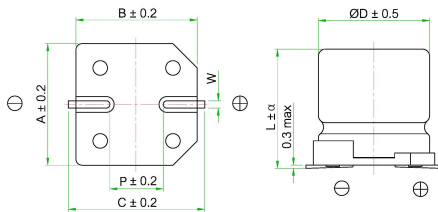
◆ SPECIFICATIONS

Item	Performance Characteristics								
Category Temperature Range	-55 ~ +105°C								
Working Voltage Range	2.5 ~ 50Vdc								
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 (Part code "F5" for 5000 hours)								
	<table border="1"> <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
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								
	<table border="1"> <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
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

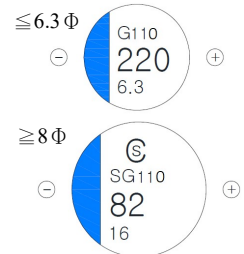
※2 ESR should be measured at both of the terminal ends closest to the capacitor body

◆ DIMENSIONS (mm)

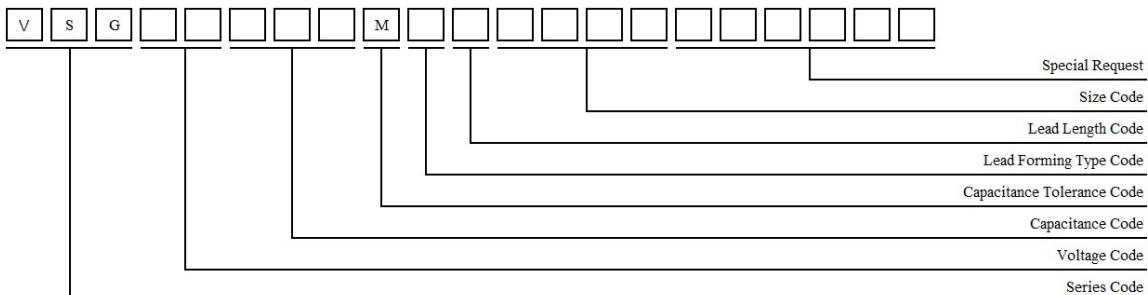


Code	Case Size	ΦD	L	α	A	B	C	W	P
0557	5×5.7	5	5.7	0.3	5.3	5.3	5.9	0.5~0.8	1.4
6357	6.3×5.7	6.3	5.7	0.3	6.6	6.6	7.3	0.5~0.8	2.1
6309	6.3×9	6.3	9.0	1	6.6	6.6	7.3	0.7~1.1	2.1
0867	8×6.7	8	6.7	0.3	8.3	8.3	9	0.7~1.1	3.2
0897	8×9.7	8	9.7	0.5	8.3	8.3	9	0.7~1.1	3.2
1077	10×7.7	10	7.7	0.5	10.3	10.3	11	0.7~1.1	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





VSG 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)	220	6.3×5.7	25	2500	0.12	300	VSG0E221MCB6357
	560	6.3×5.7	25	2500	0.12	420	VSG0E561MCB6357
	560	6.3×5.7	16	3500	0.12	420	VSG0E561MCB6357E
	680	8×6.7	20	3370	0.12	510	VSG0E681MCB0867
	1500	10×12.4	12	5400	0.12	1125	VSG0E152MCB10C4
	2700	10×12.4	12	5070	0.12	2025	VSG0E272MCB10C4
4(0G)	100	6.3×5.7	35	2200	0.12	300	VSG0G101MCB6357
	150	5×5.7	30	1490	0.12	300	VSG0G151MCB0557
	330	6.3×5.7	27	2700	0.12	400	VSG0G331MCB6357
	680	10×7.7	20	4130	0.12	816	VSG0G681MCB1077
	1200	10×12.4	12	5500	0.12	1440	VSG0G122MCB10C4
6.3(0J)	82	6.3×5.7	35	2200	0.12	300	VSG0J820MCB6357
	100	5×5.7	35	1380	0.12	300	VSG0J101MCB0557
	220	6.3×5.7	27	2320	0.12	416	VSG0J221MCB6357
	330	10×7.7	22	3600	0.12	624	VSG0J331MCB1077
	390	8×6.7	18	3220	0.12	737	VSG0J391MCB0867
	820	10×12.4	12	5500	0.12	1550	VSG0J821MCB10C4
10(1A)	47	6.3×5.7	40	2100	0.12	300	VSG1A470MCB6357
	56	6.3×5.7	40	2100	0.12	300	VSG1A560MCB6357
	120	8×6.7	30	2600	0.12	360	VSG1A121MCB0867
	270	10×7.7	25	3500	0.12	810	VSG1A271MCB1077
	330	10×7.7	25	3770	0.12	990	VSG1A331MCB1077
	560	10×12.4	13	5300	0.12	1680	VSG1A561MCB10C4
16(1C)	33	6.3×5.7	37	2050	0.12	300	VSG1C330MCB6357
	39	6.3×5.7	45	2000	0.12	300	VSG1C390MCB6357
	82	8×6.7	40	2300	0.12	394	VSG1C820MCB0867
	100	6.3×5.7	24	2490	0.12	300	VSG1C101MCB6357
	100	10×7.7	30	3200	0.12	480	VSG1C101MCB1077
	180	6.3×5.7	22	3300	0.12	576	VSG1C181MCB6357
	180	10×7.7	29	3200	0.12	864	VSG1C181MCB1077
	270	6.3×9	22	3300	0.12	864	VSG1C271MCB6309
	270	8×6.7	22	3300	0.12	864	VSG1C271MCB0867
	270	8×6.7	22	3300	0.12	864	VSG1C271MCB0867F5
	330	8×9.7	16	3890	0.12	1584	VSG1C331MCB0897
	330	10×12.4	16	4800	0.12	1584	VSG1C331MCB10C4
	560	10×12.4	16	4720	0.12	1792	VSG1C561MCB10C4
	1000	10×12.4	18	4300	0.12	3200	VSG1C102MCB10C4

CONDUCTIVE POLYMER ALUMINUM SOLID CAPACITORS

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
25(1E)	27	6.3×5.7	40	2100	0.12	135	VSG1E270MCB6357L
	47	6.3×5.7	30	2800	0.12	235	VSG1E470MCB6357
35(1V)	47	10×12.4	28	3800	0.12	410	VSG1V470MCB10C4
	100	10×12.4	29	2600	0.12	700	VSG1V101MCB10C4
	220	10×12.4	28	2600	0.12	1540	VSG1V221MCB10C4
50(1H)	100	10×12.4	27	3600	0.12	1000	VSG1H101MCB10C4

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)
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

(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		

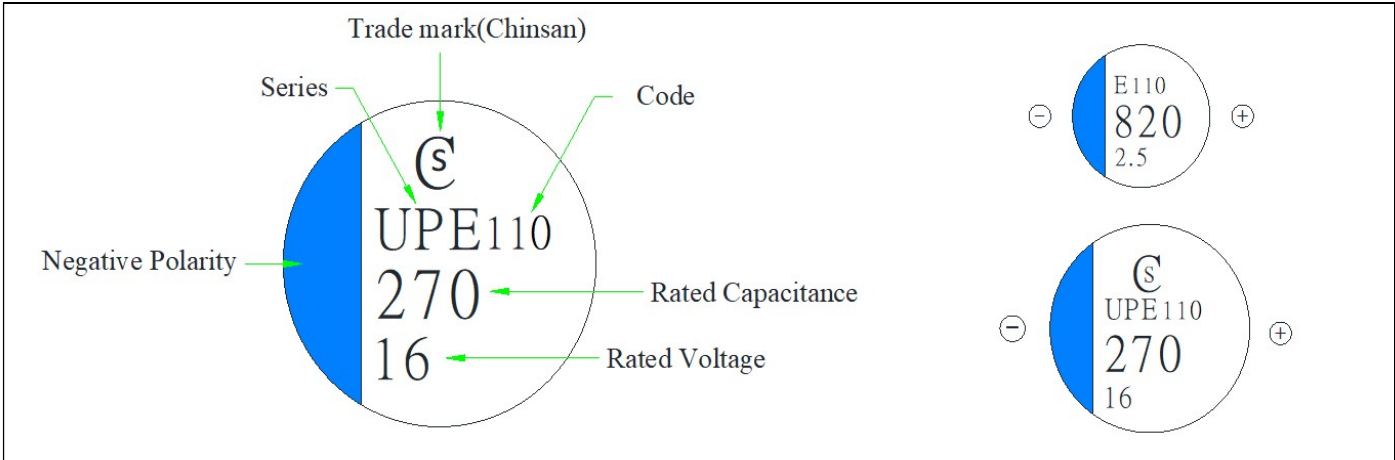
(8) Special Request

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	---	---

CONDUCTIVE POLYMER ALUMINUM SOLID CAPACITORS



◆ MARKING AND DATE CODE

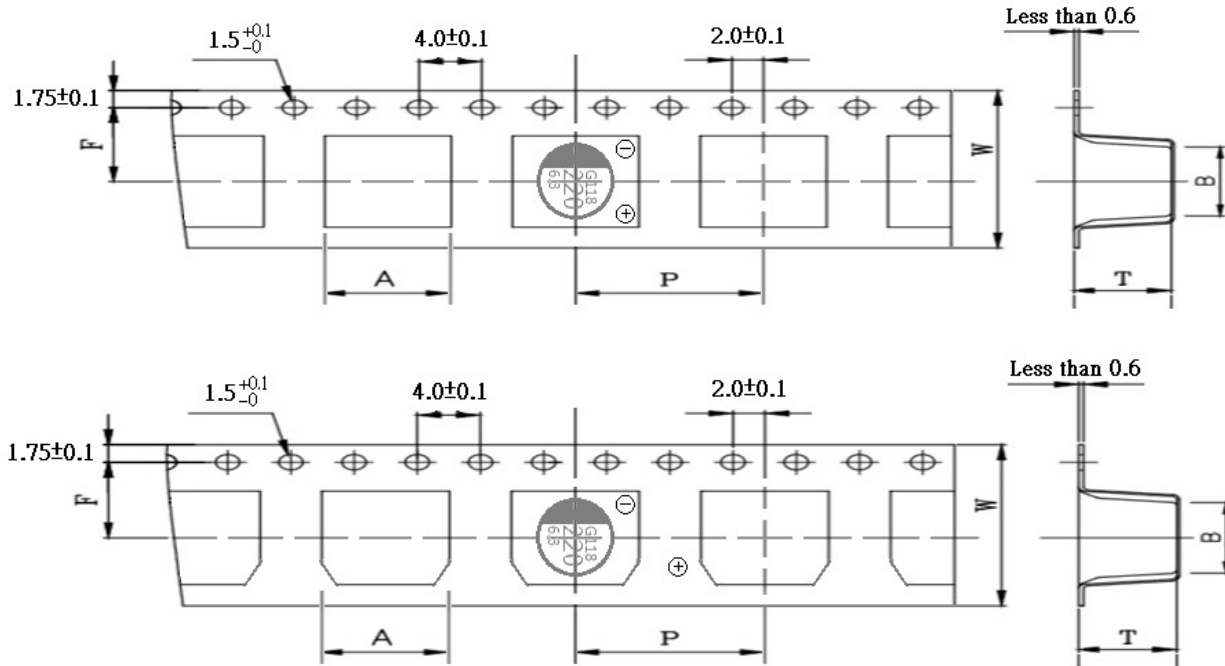


Trade Mark "CS"	Chinsan Solid Capacitor, Show on Dimension $\geq 8 \Phi$																																																						
Code (Date Code)	<p>(1)DAY</p> <table border="1"> <tr> <th>Code</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> </tr> <tr> <td>Week</td> <td>The first week</td> <td>The second week</td> <td>The third week</td> <td>The fourth week</td> <td>The fifth week</td> </tr> </table> <p>(2)Month</p> <table border="1"> <tr> <th>Code</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> </tr> <tr> <td>Month</td> <td>Jan</td> <td>Feb</td> <td>Mar</td> <td>Apr</td> <td>May</td> <td>Jun</td> </tr> <tr> <th>Code</th> <th>7</th> <th>8</th> <th>9</th> <th>X</th> <th>Y</th> <th>Z</th> </tr> <tr> <td>Month</td> <td>July</td> <td>Aug</td> <td>Sep</td> <td>Oct</td> <td>Nov</td> <td>Dec</td> </tr> </table> <p>(3)Year</p> <table border="1"> <tr> <th>Code</th> <th>9</th> <th>0</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> </tr> <tr> <td>Year</td> <td>2019</td> <td>2020</td> <td>2021</td> <td>2022</td> <td>2023</td> <td>2024</td> </tr> </table>	Code	1	2	3	4	5	Week	The first week	The second week	The third week	The fourth week	The fifth week	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	Code	9	0	1	2	3	4	Year	2019	2020	2021	2022	2023	2024
Code	1	2	3	4	5																																																		
Week	The first week	The second week	The third week	The fourth week	The fifth week																																																		
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																																																	
Code	9	0	1	2	3	4																																																	
Year	2019	2020	2021	2022	2023	2024																																																	
Series (Print Code)	<table border="1"> <thead> <tr> <th>Series</th> <th>UPS</th> <th>UPR</th> <th>UUL</th> <th>UPE</th> <th>URP</th> <th>URH</th> <th>UGP</th> <th>UGV</th> <th>UGS</th> <th>UPC</th> <th>VSG</th> <th>VSP</th> <th>VSU</th> <th>VSE</th> </tr> </thead> <tbody> <tr> <td>$\Phi 5 \sim \Phi 6.3$</td> <td>--</td> <td>R</td> <td>L</td> <td>E</td> <td>--</td> <td>H</td> <td>P</td> <td>V</td> <td>--</td> <td>C</td> <td>G</td> <td>P</td> <td>U</td> <td>E</td> </tr> <tr> <td>$\Phi 8 \sim \Phi 10$</td> <td>UPS</td> <td>--</td> <td>UL</td> <td>UPE</td> <td>RP</td> <td>RH</td> <td>GP</td> <td>GV</td> <td>GS</td> <td>UPC</td> <td>SG</td> <td>SP</td> <td>SU</td> <td>SE</td> </tr> </tbody> </table>	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									
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																																									

(1)	(2)	(3)
1	1	0

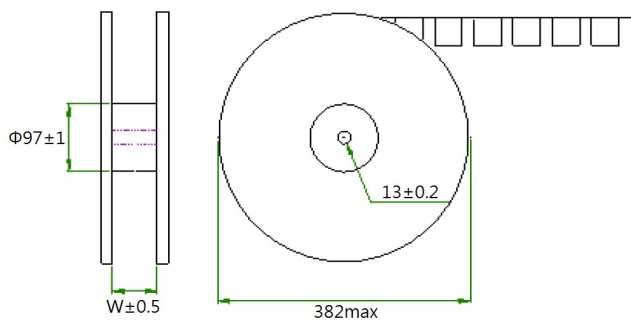
Series	UPS	UPR	UUL	UPE	URP	URH	UGP	UGV	UGS	UPC	VSG	VSP	VSU	VSE
$\Phi 5 \sim \Phi 6.3$	--	R	L	E	--	H	P	V	--	C	G	P	U	E
$\Phi 8 \sim \Phi 10$	UPS	--	UL	UPE	RP	RH	GP	GV	GS	UPC	SG	SP	SU	SE

SMD CARRIER TAPE DIMENSIONS



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 DIMENSIONS 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