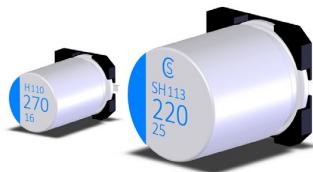


# **CONDUCTIVE POLYMER ALUMINUM SOLID CAPACITORS**



# VSH Series NEW

- Low ESR at a high frequency ranged
  - High ripple current capability
  - 2,000 hours at 125°C



## ◆ SPECIFICATIONS

SPECIFICATIONS		Performance Characteristics
Item		
Category Temperature Range		-55 ~ +125°C
Working Voltage Range		2.5 ~ 35Vdc
Surge Voltage		Rated Voltage ×1.15
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 for 2,000 hours at 125°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
Others	Conforms to JIS-C-5101-25 (2009)	

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

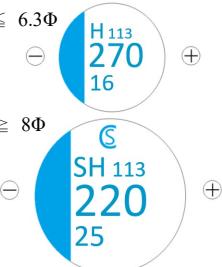
※2 ESR should be measured at both of the terminal ends closest to the capacitor body.

## ◆ DIMENSIONS (mm)

◆ LEAD

Code	Case size	$\Phi D$	L	$\alpha$	A	B	C	W	P
6357	$6.3 \times 5.7$	6.3	5.7	0.3	6.6	6.6	7.3	0.5~0.8	2.1
6309	$6.3 \times 9$	6.3	9	1	6.6	6.6	7.3	0.7~1.1	2.1
0867	$8 \times 6.7$	8	6.7	0.3	8.3	8.3	9	0.7~1.1	3.2
0897	$8 \times 9.7$	8	9.7	0.5	8.3	8.3	9	0.7~1.1	3.2
08B7	$8 \times 11.7$	8	11.7	0.5	8.3	8.3	9	0.7~1.1	3.2
08C7	$8 \times 12.7$	8	12.7	0.5	8.3	8.3	9	0.7~1.1	3.2
1010	$10 \times 10$	10	10	0.5	10.3	10.3	11	0.7~1.1	4.6
1012	$10 \times 12$	10	12	0.5	10.3	10.3	11	0.7~1.1	4.6

## ◆ MARKING



#### ◆ PART NUMBER SYSTEM ( Example : 16V 270μF )

The diagram illustrates the structure of a VSH1271M capacitor part number. The first 11 digits (V, S, H, 1, C, 2, 7, 1, M, C, B) are grouped together with a bracket above them. To the right of this group, the text "Special Request" is aligned with the last digit. Below this group, the sequence 6, 3, 0, 9 is grouped with a bracket above them, labeled "Size code(6309 : 6.3×9)". Further down, the sequence 6, 3, 0, 9 is grouped with a bracket above them, labeled "Terminal length code". The next two digits, 3 and 0, are grouped with a bracket above them, labeled "Lead forming Type code". The next two digits, 9 and 0, are grouped with a bracket above them, labeled "Capacitance tolerance code(M:±20%)". The next three digits, 2, 7, 0, are grouped with a bracket above them, labeled "Capacitance code(270μF)". The final two digits, 1 and 6, are grouped with a bracket above them, labeled "Voltage code(16V)". The entire sequence of digits is grouped with a bracket above them, labeled "Series code (VSH)".

# CONDUCTIVE POLYMER ALUMINUM SOLID CAPACITORS



## VSH Series NEW

### ◆ STANDARD RATINGS

WV (Vdc)	Cap ( $\mu$ F)	Case Size (mm) $\Phi$ D×L	ESR 100~300KHz (m $\Omega$ max)	Rated Ripple current (mA rms max)		Tan $\delta$ max	Leakage Current ( $\mu$ A max)	Part Number
				$\leq 105^{\circ}\text{C}$	105~125 $^{\circ}\text{C}$			
6.3 (0J)	220	6.3×5.7	15	3160	1000	0.12	500	VSH0J221MCB6357
10 (1A)	270	6.3×9	20	3950	1650	0.12	540	VSH1A271MCB6309
	330	6.3×9	25	3950	1650	0.12	660	VSH1A331MCB6309
16 (1C)	100	6.3×5.7	20	2490	700	0.12	320	VSH1C101MCB6357
	270	6.3×9	22	3300	1040	0.12	864	VSH1C271MCB6309
20 (1D)	180	8×6.7	29	4650	1600	0.12	720	VSH1D181MCB0867
25 (1E)	22	6.3×5.7	35	1400	560	0.12	280	VSH1E220MCB6357
	150	8×9.7	22	2600	1040	0.12	750	VSH1E151MCB0897
	180	8×11.7	18	2800	1080	0.12	900	VSH1E181MCB08B7
	220	8×9.7	22	3500	1100	0.12	600	VSH1E221MCB0897
	220	8×12.7	25	2800	1080	0.12	1100	VSH1E221MCB08C7
	330	8×12.7	25	2800	1080	0.12	1650	VSH1E331MCB08C7
	470	10×12	14	4700	1600	0.12	2350	VSH1E471MCB1012
35 (1V)	22	6.3×5.7	50	1300	400	0.12	154	VSH1V220MCB6357
	47	10×10	30	3800	1470	0.12	410	VSH1V470MCB1010
	56	6.3×9	40	2400	800	0.12	392	VSH1V560MCB6309
	100	8×11.7	30	2800	1080	0.12	700	VSH1V101MCB08B7
	100	8×12.7	30	2800	1080	0.12	700	VSH1V101MCB08C7
	120	8×12.7	30	2800	1080	0.12	840	VSH1V121MCB08C7