

# ALUMINUM ELECTROLYTIC CAPACITORS



## SS & SS-H Series

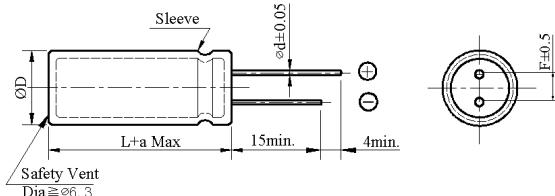
- Standard miniature series with 7mm height at 85°C & 105°C



### ◆ SPECIFICATIONS

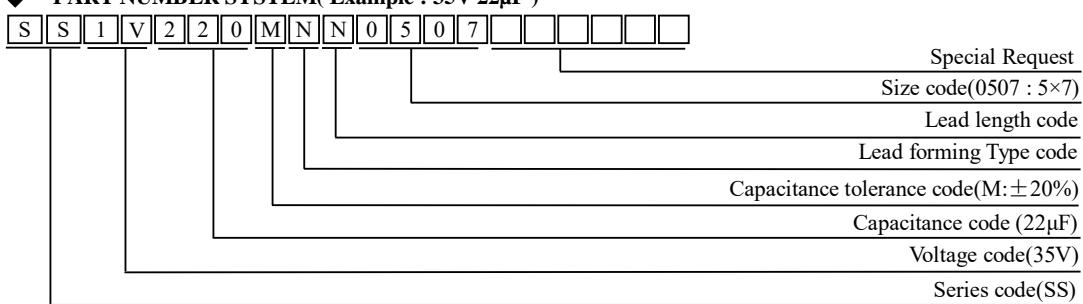
Item	Performance Characteristics							
Series	SS				SS-H			
Category Temperature Range	-40 ~ +85°C				-40 ~ +105°C			
Working Voltage Range	6.3 ~ 63 Vdc							
Capacitance Range	0.1 ~ 330 $\mu$ F							
Capacitance Tolerance	$\pm 20\%$ (at 25°C and 120Hz)							
Dissipation Factor (tan $\delta$ ) (at 25°C, 120Hz)	Rated Voltage (V)	6.3	10	16	25	35	50	63
	tan $\delta$ (Max)	0.24	0.20	0.16	0.14	0.12	0.10	0.10
	When nominal capacitance exceeds 1,000 $\mu$ F, add 0.02 to the value above for each 1,000 $\mu$ F increase.							
Leakage Current	$I=0.01CV$ or $3\mu A$ whichever is greater I : Leakage current ( $\mu A$ ) C : Rated capacitance ( $\mu$ F) V : Rated voltage (V) Impress the rated voltage for 2 minutes							
Low Temperature Characteristics Impedance Ratio(MAX)	Rated voltage (V)	6.3	10	16	25	35	50	63
	Z(-40°C)/Z(+20°C)	10	8	6	4	4	3	3
	(at 120Hz)							
Endurance	The following requirements shall be satisfied when the capacitor are restored to 25°C after the rated voltage applied for 1,000 hours at 85°C(SS), or 1,000 hours at 105°C(SS-H).							
	Capacitance change	$\leq \pm 25\%$ of the initial value						
	Dissipation factor(tan $\delta$ )	$\leq 200\%$ of the specified value						
	Leakage current	$\leq$ specified value						
Shelf Life	The following requirements shall be satisfied when the capacitor are restored to 25°C after exposing them for 500 hours at 85°C(SS), or 500 hours at 105°C(SS-H) without voltage applied.							
	Capacitance change	$\leq \pm 25\%$ of the initial value						
	Dissipation factor(tan $\delta$ )	$\leq 200\%$ of the specified value						
	Leakage current	$\leq 200\%$ of the specified value						
Others	Conforms to JIS-C-5101-4 (1998)							

### ◆ DIMENSIONS (mm)



ΦD	4	5	6.3	8×7
ΦD	ΦD + 0.5 Max			
Φd	0.45	0.45	0.45	0.45
F	1.5	2.0	2.5	3.5
a	L + 1.0 Max			

### ◆ PART NUMBER SYSTEM( Example : 35V 22μF )



# ALUMINUM ELECTROLYTIC CAPACITORS



## SS Series

### ◆ STANDARD RATINGS

WV (Vdc)	Cap ( $\mu$ F)	Case Size (mm) $\Phi$ D×L	Rated Ripple current (mA rms/ 85°C, 120Hz)	Part Number
6.3 (0J)	22	4×7	34	SS0J220MNN0407
	33	4×7	40	SS0J330MNN0407
	47	4×7	44	SS0J470MNN0407
	100	5×7	69	SS0J101MNN0507
	220	6.3×7	120	SS0J221MNN6307
	330	8×7	150	SS0J331MNN0807
10 (1A)	22	4×7	38	SS1A220MNN0407
	33	4×7	41	SS1A330MNN0407
	47	4×7	47	SS1A470MNN0407
	100	5×7	73	SS1A101MNN0507
	220	6.3×7	125	SS1A221MNN6307
	330	8×7	155	SS1A331MNN0807
16 (1C)	10	4×7	28	SS1C100MNN0407
	22	4×7	39	SS1C220MNN0407
	33	4×7	45	SS1C330MNN0407
	47	5×7	61	SS1C470MNN0507
	100	6.3×7	92	SS1C101MNN6307
	220	8×7	138	SS1C221MNN0807
25 (1E)	4.7	4×7	24	SS1E4R7MNN0407
	10	4×7	30	SS1E100MNN0407
	22	4×7	46	SS1E220MNN0407
	33	5×7	57	SS1E330MNN0507
	47	6.3×7	66	SS1E470MNN6307
	100	8×7	95	SS1E101MNN0807
35 (1V)	4.7	4×7	24	SS1V4R7MNN0407
	10	5×7	32	SS1V100MNN0507
	22	5×7	51	SS1V220MNN0507
	33	6.3×7	60	SS1V330MNN6307
	47	6.3×7	72	SS1V470MNN6307
	100	8×7	98	SS1V101MNN0807

WV (Vdc)	Cap ( $\mu$ F)	Case Size (mm) $\Phi$ D×L	Rated Ripple current (mA rms/ 85°C, 120Hz)	Part Number
50 (1H)	0.1	4×7	2	SS1H10MNN0407
	0.22	4×7	2	SS1H22MNN0407
	0.33	4×7	3.5	SS1H33MNN0407
	0.47	4×7	5	SS1H47MNN0407
	1	4×7	10	SS1H010MNN0407
	2.2	4×7	19	SS1H2R2MNN0407
	3.3	4×7	24	SS1H3R3MNN0407
	4.7	4×7	26	SS1H4R7MNN0407
	10	5×7	40	SS1H100MNN0507
	22	6.3×7	60	SS1H220MNN6307
63 (1J)	33	8×7	62	SS1H330MNN0807
	47	8×7	75	SS1H470MNN0807
	0.1	4×7	4	SS1JR10MNN0407
	0.22	4×7	4	SS1JR22MNN0407
	0.33	4×7	4	SS1JR33MNN0407
	0.47	4×7	6	SS1JR47MNN0407
	1	4×7	13	SS1J010MNN0407
	2.2	4×7	21	SS1J2R2MNN0407
	3.3	4×7	26	SS1J3R3MNN0407
	4.7	5×7	33	SS1J4R7MNN0507

### ◆ RIPPLE CURRENT MULTIPLIERS

#### Frequency Multipliers

Vdc	Frequency (Hz)				
	60	120	1K	10K	100K
6.3 ~ 25	0.75	1.00	1.10	1.13	1.20
35 ~ 63	0.80	1.00	1.15	1.20	1.25