

# Miniature Size 5mm Aluminum Electrolytic Capacitor

## SPKE07(105°C) Series

- 5.0+1 mm max height
- Load life 105°C hrs assured
- For the special designing requirement, please contact us.



### Specifications

Item	Performance Characteristics								
Operating Temperature Range	-40 to +105°C								
Rated Voltage Range	4 to 50VDC								
Capacitance Range	0.1 to 330µF								
Capacitance Tolerance	±20%(120Hz,+20°C)								
Leakage Current (+20°C,max)	I ≤ 0.01CV or 3(µA) After 2 minutes, whichever is greater measured with rated working voltage applied								
Dissipation Factor(tan δ )	(+20°C,at 120Hz)	Working Voltage(VDC)	4	6.3	10	16	25	35	50
		D.F.(%)max	35	24	20	16	14	12	10
Low Temperature Characteristics (120Hz)	impedance ratio max	Working Voltage(VDC)	4	6.3	10	16	25	35	50
		Z-25°C/AZ+20°C	6	3	3	2	2	2	2
		Z-40°C/AZ+20°C	12	8	5	4	3	3	3
Load Life	Test conditions								
	Duration time	: 1000Hrs							
	Ambient temperature	: +105°C							
	Applied voltage	: Rated DC working voltage							
	After test requirements at +20°C								
	Capacitance change	: ≤ ±20% of the initial measured value(4V: ≤ ±30%)							
Dissipation factor	: ≤ 200% of the initial specified value								
Leakage current	: ≤ The initial specified value								
Shelf Life	Test conditions								
	Duration time	: 1000Hrs							
	Ambient temperature	: +105°C							
	Applied voltage	: None							
	After test requirements at +20°C	: Same limits as Load life							
	Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes.								

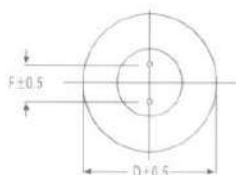
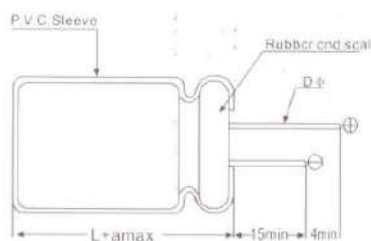
### Multiplier for Ripple Current vs.Frequency

CAP(µF) \ Frequency(Hz)	50(60)	120	1K	≥10K
0.1~47	0.8	1	1.3	1.5
68~330	0.8	1	1.15	1.2

### Multiplier for Ripple Current vs.Temperature

Temperature(°C)	60	85	105
Multiplier	1.90	1.70	1.00

### Diagram of Dimensions:(unit:mm)



Dø	3	4	5	6.3	8
F	1.0±0.3	1.5±0.5	2.0±0.5	2.5±0.5	3.5±0.5
dø	0.45				
a	1.0				1.5

# Miniature Size 5mm Aluminum Electrolytic Capacitor

■ Case Size

ΦDXL(mm)

WV(SV) u F	4 (5)		6.3(8)		10(13)		16(20)		25(32)		35(44)		50(63)		
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	
0.1													3×5	1.0	
													4×5	1.5	
0.15													3×5	1.8	
													4×5	2.0	
0.22													3×5	2.3	
													4×5	2.6	
0.33													3×5	3.0	
													4×5	3.2	
0.47													3×5	3.5	
													4×5	3.8	
0.68													3×5	4.6	
													4×5	5.0	
1													3×5	5.6	
													4×5	6.2	
1.5													3×5	6.5	
													4×5	7.0	
2.2												3×5	7.5	3×5	8.0
												4×5	7.5	4×5	11
3.3										3×5	8.5	3×5	9	4×5	14
										4×5	8.5	4×5	11		
4.7								3×5	9	4×5	10	4×5	15	5×5	19
								4×5	9	4×5	13				
6.8					3×5	11	4×5	13	4×5	15	5×5	19	5×5	22	
					4×5	11							6.3×5	25	
10	3×5	10	3×5	12	4×5	15	4×5	18	5×5	23	5×5	25	6.3×5	30	
	4×5	10	4×5	12											
15	4×5	13	4×5	15	4×5	18	5×5	23	6.3×5	32	6.3×5	32	8×5	35	
22	4×5	22	4×5	22	5×5	27	5×5	30	6.3×5	39	6.3×5	48	8×5	50	
33	5×5	30	5×5	30	5×5	35	6.3×5	45	6.3×5	48	8×5	50			
47	5×5	36	5×5	36	6.3×5	48	6.3×5	50	6.3×5	50					
									8×5	55					
68	6.3×5	52	6.3×5	52	6.3×5	53	8×5	55							
100	6.3×5	60	6.3×5	60	8×5	65	8×5	68							
220	6.3×5	80	6.3×5	80	8×5	83									
330	8×5	135	8×5	145											

Ripple Current (mA,rms) at 105°C 120Hz

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1.5													3×5	6.5	
													4×5	7.0	
2.2												3×5	7.5	3×5	8.0
												4×5	7.5	4×5	11
3.3										3×5	8.5	3×5	9	4×5	14
										4×5	8.5	4×5	11		
4.7								3×5	9	4×5	10	4×5	15	5×5	19
								4×5	9	4×5	13				
6.8					3×5	11	4×5	13	4×5	15	5×5	19	5×5	22	
					4×5	11							6.3×5	25	
10	3×5	10	3×5	12	4×5	15	4×5	18	5×5	23	5×5	25	6.3×5	30	
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Ripple Current (mA,rms) at 105°C 120Hz