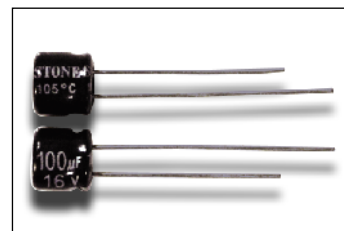




Aluminum Electrolytic Capacitors **SM/SS** Series

Features

- 105°C with 5mm height
- RoHS Compliance



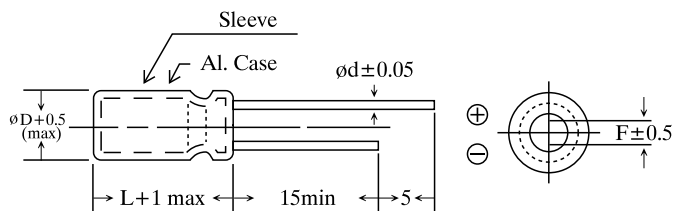
Specification

Items	Performance								
Capacitance Tolerance	±20% (at 120Hz, 20°C)								
Rated Voltage Range	4 to 50 VDC								
Capacitance Range	0.1 to 470 µF								
Operating Temperature Range	-40 to + 105°C								
Leakage Current (at 20°C)	$I \leq 0.01 CV$ or $3 (\mu A)$, whichever is greater. After 2 minutes application of working voltage. I = Leakage current (μA), C = Rated capacitance (μF), V = Rated voltage (V)								
Dissipation Factor (Tan δ at 120Hz, 20°C)	Rated Voltage	4	6.3	10	16	25	35	50	
	Tan δ (max)	0.35	0.24	0.20	0.17	0.15	0.12	0.10	
Low Temperature Characteristics (at 120Hz)	Impedance ratio max.								
	Rated Voltage	4	6.3	10	16	25	35	50	
	Z-25°C/Z+20°C	7	4	3	2	2	2	2	
	Z-40°C/Z+20°C	15	10	8	6	4	3	3	
Load Life	After 1000 hours application of W.V. at 105°C, the capacitor shall meet the following limits. Capacitance change : $\leq \pm 25\%$ of initial value Dissipation factor : $\leq 200\%$ of initial specified value Leakage Current : \leq Initial specified value								
Shelf Life	After storage for 500 hours at 105°C, with no voltage applied and being stabilized at + 20°C, Capacitor shall meet the limit specified in load life.								
Ripple Current & Frequency Multiplier	Freq.(Hz)	60 (50)	120	500	1K	10K up			
	Cap.(µF)								
	Under 47	0.75	1.00	1.20	1.30	1.45			
	100 to 470	0.80	1.00	1.10	1.15	1.20			
Ripple Current & Temperature Multiplier	Temperature(°C)	85			105				
	Multiplier	1.40			1.00				



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DIAGRAM OF DIMENSIONS



LEAD SPACING AND DIAMTER Unit: mm

D	3	4	5	6.3	8
F	1.0	1.5	2.0	2.5	3.5
d	0.4	0.45			0.5

DIMENSION & PERMISSIBLE RIPPLE CURRENT

Dimension : $\phi D \times L$ (mm)

Ripple Current : mA/rms at 120Hz, 105°C

VDC μF	4V		6.3V		10V		16V		25V		35V		50V	
	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA
0.1													3x5 4x5	1
0.22													3x5 4x5	2
0.33													3x5 4x5	2
0.47													3x5 4x5	3
1													3x5 4x5	5
2.2													3x5 4x5	7
3.3													4x5	8
4.7									3x5	8	4x5	12	4x5	12
10							3x5	12	4x5	18	5x5	20	6.3x5	25
22					3x5	15	4x5 5x5	20 25	5x5	30	6.3x5	42	6.3x5	42
33					4x5	20	4x5 5x5	20 35	6.3x5	42	8x5	50		
47			4x5	28	5x5	36	5x5 6.3x5	34 45	6.3x5	48	8x5	52		
100			5x5	34	6.3x5	60	6.3x5	65	8x5	68				
220			6.3x5	80	8x5	83	8x5	83						
330			8x5	80										
470	8x5	83												