

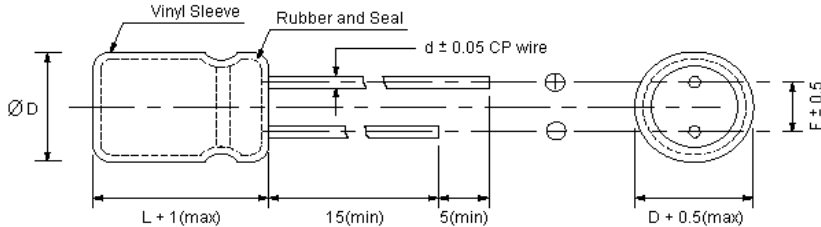


**RoHS Compliant ALUMINIUM ELECTROLYTIC CAPACITOR** **ZS Series**

■ **FEATURES**

- ◆ High ripple current, low impedance series with 7mm height
- ◆ Load life of 1000 hours at 105°C

■ **OUTLINE**



	mm			
D	4	5	6.3	8
F	1.5	2.0	2.5	3.5
d	0.45		0.50	

■ **SPECIFICATIONS**

Items	Characteristics					
<b>Capacitance Tolerance (120Hz, 25°C)</b>	± 20% (M)					
<b>Rated Working Voltage Range</b>	6.3 ~ 50Vdc					
<b>Operation Temperature</b>	-40°C ~ +105°C					
<b>Leakage Current (25°C)</b>	(After 3 minutes applying the DC working voltage)					
	$I \leq 0.01CV$ or $3 (\mu A)$					
	◆ I : Leakage Current ( $\mu A$ )		◆ C : Rated Capacitance ( $\mu F$ )		◆ V : Working Voltage (V)	
<b>Surge Voltage (25°C)</b>	W.V.	6.3	10	16	25	35
	S.V.	8	13	20	32	44
<b>Dissipation Factor (120Hz, 25°C)</b>	W.V.	6.3	10	16	25	35
	$\tan \delta$	0.22	0.19	0.16	0.14	0.12
<b>Temperature Characteristics</b>	W.V.	6.3	10	16	25	35
	- 25°C / + 25°C	3	3	3	2	2
	- 40°C / + 25°C	6	6	6	4	4
◆ Impedance ratio at 120Hz						
<b>Load Test</b>	After 1000 hours application of WV at +105°C, the capacitor shall meet the following limits:					
	<b>Capacitance Change</b>	$\leq \pm 20\%$ of initial value				
	<b><math>\tan \delta</math></b>	$\leq 200\%$ of initial specified value				
	<b>Leakage Current</b>	$\leq$ initial specified value				
<b>Shelf Test</b>	After 500 hours, no voltage applied at + 105°C for 500 hours, the capacitor shall meet the following limits:					
	<b>Capacitance Change</b>	$\leq \pm 20\%$ of initial value				
	<b><math>\tan \delta</math></b>	$\leq 200\%$ of initial specified value				
	<b>Leakage Current</b>	$\leq 200\%$ of initial specified value				



■ **DIMENSIONS**

D x L (mm)

uF \ WV	WV					D x L (mm)
	6.3	10	16	25	35	
4.7				]	4 x 7	
6.8				]	4 x 7	
10			]	4 x 7	5 x 7	
22	]	4 x 7	5 x 7	5 x 7	6.3 x 7	
33	4 x 7	5 x 7	6.3 x 7	6.3 x 7	8 x 7	
47	5 x 7	5 x 7	6.3 x 7	8 x 7	8 x 7	
68	5 x 7	6.3 x 7	8 x 7	8 x 7		
100	6.3 x 7	8 x 7	8 x 7			
220	8 x 7					

RC: mA (rms) at 100KHz 105°C

Imp: Ω (ohm) at 100KHz 25°C

■ **RIPPLE CURRENT & IMPEDANCE**

uF \ WV	Item	6.3		10		16		25		35			
		R.C	Imp	RC	Imp	RC	Imp	RC	Imp	RC	Imp		
4.7								]	48	4.05			
6.8								]	65	3.39			
10						]	70	3.27	110	2.43			
22		]	60	2.13	85	1.76	105	1.73	130	1.26			
33		65	1.62	95	1.55	130	1.12	135	1.08	155	0.92		
47		100	1.45	110	1.02	140	0.85	160	0.8	165	0.74		
68		115	0.97	150	0.88	170	0.67	175	0.64				
100		155	0.8	185	0.63	190	0.6						
220		200	0.46										

■ **RIPPLE CURRENT COEFFICIENTS**

Temperature(°C)	45	65	85	105
Multiplier	2.40	2.15	1.70	1.00

uF \ Hz	Hz				
	60(50)	120	1K	10K	100K
4.7 ~ 33	0.35	0.45	0.75	0.90	1.00
47 ~ 220	0.60	0.70	0.85	0.95	1.00