

Aluminum Electrolytic Capacitors

YUSCON®

TF Series

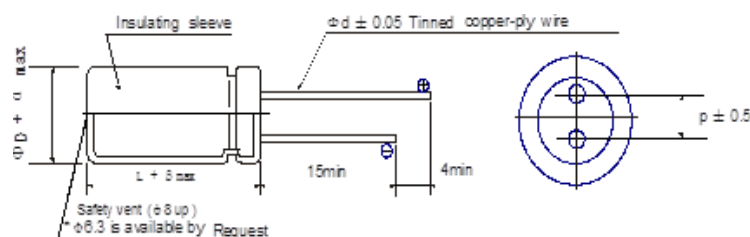
- 105°C High Frequency , Low Impedance, High ripple cur
- 5000 hours guaranteed for $\Phi D \leq \Phi 10$
- 7000 hours guaranteed for $\Phi D \geq \Phi 13$
- Rohs compliance.



◆ SPECIFICATIONS

Item	Characteristics				
Operating Temperature Range	'-40 ~ +105℃ (160V~400V.DC)		-25 ~ +105℃ (450V.DC)		
Voltage Range	160V~400V.DC		450V.DC		
Leakage Current	I = 0.03CV +1 5(μA) whichever is greater.(after 5 minutes) where,I: Max Leakage Current(μA), C: Nominal Capacitance(μF), V: Rated Voltage(V) (at 20 ℃)				
Dissipation Factor (tanδ) (at 120Hz, +20℃)	Rated voltage(V.DC)	160~250V	350、400V	450V	
	tan δ (Max.)	0.20	0.24	0.24	
Low Temp. Impedance Stability at 120Hz	Rated voltage(V.DC)	160~250V	350、400V	450V	
	Z(-25℃)/Z(+20℃)	3	5	6	
	Z(-40℃)/Z(+20℃)	6	6	-	
Impedance(Ω)	See case size table				
High Temp. Load Test	After ΦD≦Φ10: 5000hrs, ΦD ≧Φ13: 7000hrs, application of DC rated working voltage at + 105 ℃ , The capacitor shall meet the following limits . Capacitance change ... ≧± 20% of the initial measured value Tan δ ... ≧ 200% of the initial specified value DC leakage current ... ≧ the initial specified value				
High Temp. Non-Load Test	After storage for 1000 hours at 105 ℃ with no voltage applied, voltage treatment of JIS-C-5102 article 4-4 is to be given and then measurement shall be made, The capacitor shall meet the following limits . Capacitance change ... ≧± 20% of the initial measured value tan δ ... ≧ 200% of the initial specified value DC leakage current ... ≧ 500% of the initial specified value				

◆ DRAWING



Φ D	10	13	16	18
P	5.0	5.0	7.5	7.5
Φ d	0.6	0.6	0.8	0.8
β	1.5			
α	0.5			

▼ MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

Freq.(HZ)	60(50)	120	1K	10K	100K
3.3~47	0.70	1.00	1.75	2.25	2.50
68~470	0.75	1.00	1.67	1.75	2.25

◆ PART NUMBERING SYSTEM

TF	□□□	□	□□□	□	□□
Series	Rated Cap.	Cap. Tolerance	Rated Voltage	Case Size D	Case Size L

TF Series

STANDARD RATINGS

WV(Vdc) Parameter Cap (μF)	160				200			
	ΦDxL (mm)	Impedance Ω 20℃,100KHZ	Ripple Current(mArms)		ΦDxL (mm)	Impedance Ω 20℃,100KHZ	Ripple Current(mArms)	
			105℃ 120HZ	105℃ 100KHZ			105℃ 120HZ	105℃ 100KHZ
22	10x20	2.1	200	500	10x20	1.5	200	500
33	10x20	1.3	250	625	10x20	0.91	260	650
47	10x20	0.91	300	750	13x20	0.91	390	975
68	13x20	0.63	470	1175	13x25	0.63	470	1175
100	13x25	0.31	620	1395	16x25	0.27	630	1420
150	16x25	0.27	770	1735	16x25	0.27	840	1890
220	16x25	0.22	1020	2295	18x25	0.25	1050	2365
330	18x31.5	0.21	1390	3130	18x35.5	0.22	1430	3220
470	18x45	0.19	1650	3715				

WV(Vdc) Parameter Cap (μF)	250				350			
	ΦDxL (mm)	Impedance Ω 20℃,100KHZ	Ripple Current(mArms)		ΦDxL (mm)	Impedance Ω 20℃,100KHZ	Ripple Current(mArms)	
			105℃ 120HZ	105℃ 100KHZ			105℃ 120HZ	105℃ 100KHZ
10	10x20	3.5	140	350				
22	10x20	2.3	200	500	13x20	2.1	260	650
33	13x25	1.7	320	800	16x20	0.91	360	900
47	13x25	1.7	390	975	16x25	0.73	430	1075
68	16x25	0.78	520	1300	16x31.5	0.49	560	1400
100	16x31.5	0.63	680	1530	18x31.5	0.4	700	1575
150	18x31.5	0.42	860	1935				
220	18x31.5	0.35	1130	2545				

WV(Vdc) Parameter Cap (μF)	400				450			
	ΦDxL (mm)	Impedance Ω 20℃,100KHZ	Ripple Current(mArms)		ΦDxL (mm)	Impedance Ω 20℃,100KHZ	Ripple Current(mArms)	
			105℃ 120HZ	105℃ 100KHZ			105℃ 120HZ	105℃ 100KHZ
3.3					10x20	6.5	60	150
4.7					13x20	3.6	80	200
10	10x20	2.9	140	350	13x20	2.5	180	450
22	10x20	1.3	260	650	16x25	1.7	290	600
33	13x25	0.91	360	900	16x25	1.1	390	975
47	16x25	0.73	470	1175	18x25	0.93	480	1200
68	18x25	0.53	585	1465	18x31.5	0.71	630	1575
100	18x31.5	0.34	765	1172	18x40	0.41	800	1800
120	18x35.5	0.34	865	1945				
150	18x40	0.33	985	2215				