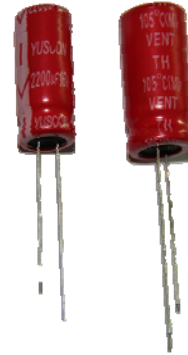


Aluminum Electrolytic Capacitors



TH Series

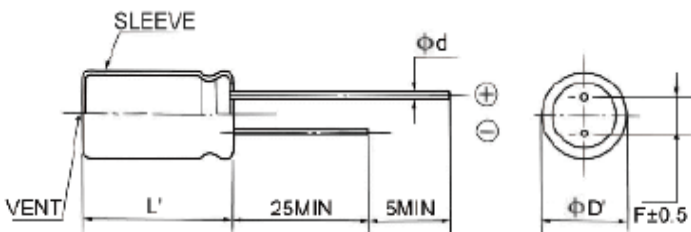
- Low Impedance, High Ripple Current, Long Life
- Endurance: 105°C 10000 hours.
- Have characteristics of withstanding high temperature 105°C and good reliability.
- Suitable for communication equipment and industrial measurement instruments, switching power supplies, etc.
- Rohs compliance.



◆ SPECIFICATIONS

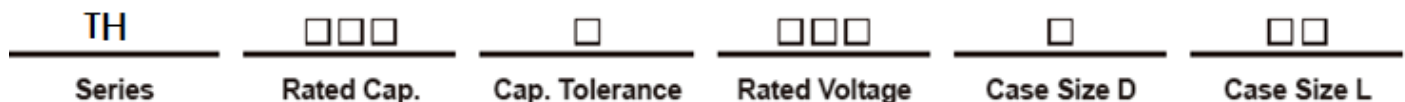
Item	Characteristics									
Temperature Range	-40 to +105°C									
Rated Voltage Range	6.3 to 50 WV.DC									
Surge Voltage	W.V.	6.3	10	16	25	35	50	63	100	at 25°C
	S.V.	8	13	20	32	44	63	73	110	
Capacitance Tolerance	-20%(M) ~ +20% (at 25°C, 120Hz)									
Leakage Current	I = 0.01CV, whichever is greater. at 25°C After 1 minutes I: Max. Leakage Current (μA) C: Rated Capacitance (μF) V: Rated voltage (V)									
Dissipation Factor (tanδ)	Rated voltage (V)	6.3	10	16	25	35	50	63	100	at 25°C, 120Hz
	Tanδ(Max)	22	19	16	14	12	10	9	8	
When rated capacitance is over 1000 uF, tan δ shall be added 0.02 to the listed value with increase of every 1000uF (at 25°C, 120Hz)										
Low Temperature Characteristics	Impedance ratio at 120Hz									
	Rated voltage (V)	6.3	10	16	25	35	50	63	100	
	Z-25°C/Z+20°C	4	3	2	2	2	2	2	2	2
Z-40°C/Z+20°C	8	6	4	3	3	3	3	3	3	
Endurance	The following specification shall be satisfied when the capacitors are restored to 20°C after subjected DC voltage with the rated ripple current is applied for 10000 hours at 105°C.									
	Capacitance Change	≅ ±20% of the initial value								
	Dissipation Factor	≅ 200% of the initial specified value								
Shelf Life	The following specification shall be satisfied when the capacitors are restored to 20°C after exposing them for 1000hours at 105°C without voltage applied. (Reference JIS C 5102)									
	Capacitance Change	≅ ±20% of the initial value								
	Dissipation Factor	≅ 200% of the initial specified value								
	Leakage Current	≅ 200% of the initial specified value								

◆ DRAWING



ψD	5	6.3	8	10-13	16-18
ψd	0.5		0.6	0.6	0.8
F	2	2.5	3.5	5.3	7.5
ψD'	D + 0.5 max			D + 1.0 max	
L'	L + 1.5 max			L + 2.0 max	

◆ PART NUMBERING SYSTEM



TH Series

◆ FREQUENCY COEFFICIENT OF RATED RIPPLE CURRENT

Frequency	uF	120Hz	1KHz	10KHz~	100KHz~
Coefficient	6.8-33	0.42	0.70	0.90	1.00
	39-270	0.50	0.73	0.92	1.00
	330-680	0.55	0.77	0.94	1.00
	820-2200	0.60	0.82	0.96	1.00
	2500-10000	0.70	0.85	0.98	1.00

■ STANDARD RATINGS

WV uF	6.3			10		
	DxL	R.C.	E.S.R	DxL	R.C.	E.S.R
56				5 X 11	150	0.65
100				5 X 11	210	0.58
150	5 X 11	210	0.58	6.3 X 11	280	0.42
220	6.3 X 11	300	0.35	6.3 X 11	340	0.22
330	6.3 X 11	340	0.22	8 X 11	550	0.18
470	8 X 11	550	0.18	8 X 11	640	0.13
1000	8 X 16	840	0.087	8 X 20	1050	0.069
2200	10 X 25	1650	0.042	10 X 30	1900	0.031
3300	12.5 X 20	1900	0.035	12.5 X 25	2230	0.027
4700	12.5 X 30	2210	0.024	12.5 X 35	2880	0.02
5600	12.5 X 35	2530	0.027	12.5 X 40	2930	0.021
6800	13 X 35	2930	0.021	16 X 32	3450	0.017
8200	16 X 32	3450	0.017	16 X 36	3610	0.015

WV uF	16			25		
	DxL	R.C.	E.S.R	DxL	R.C.	E.S.R
22				5 X 11	115	0.85
33				5 X 11	150	0.65
47				5 X 11	210	0.58
56	5 X 11	210	0.58	5 X 11	280	0.47
100	6.3 X 11	310	0.25	6.3 X 11	340	0.22
220	6.3 X 15	550	0.15	8 X 14	640	0.13
330	8 X 14	640	0.13	8 X 20	840	0.087
470	8 x 20	840	0.087	10 X 16	1210	0.06
1000	10 X 20	1400	0.046	10 X 30	1910	0.031
2200	12.5 X 30	2230	0.027	12.5 X 40	2880	0.02
3300	12.5 X 40	2880	0.02	16 X 32	3450	0.017
4700	16 X 35	3450	0.017	16 X 40	4080	0.013
5600	18 x 35	4170	0.015	18 X 40	4280	0.012
6800	16 x 40	4080	0.013			
8200	18 x 40	4220	0.014			

R.C. : Rated ripple current (mA rms) at 105°C ,impedance(E.S.R) at 20°C , 100kHz)

TH Series

STANDARD RATINGS

WV uF	35			50		
	DxL	R.C.	E.S.R	DxL	R.C.	E.S.R
33	5 X 11	210	0.58	6.3 X 11	220	0.065
47	6.3 X 11	300	0.45	6.3 X 11	285	0.35
56	6.3 X 11	340	0.22	6.3 X 11	295	0.3
100	8 X 11	550	0.18	8 X 14	555	0.17
220	8 X 20	840	0.087	10 X 16	1050	0.084
330	10 X 16	1210	0.06	10 X 25	1440	0.055
470	10 X 20	1400	0.046	10 X 30	1690	0.043
680	12.5 X 25	1900	0.035	12.5 X 30	2310	0.03
1000	12.5 X 30	2230	0.027	12.5 X 40	2920	0.021
2200	16 X 35	3140	0.019	18 X 40	3680	0.017
3300	16 X 45	4080	0.013			
3900	18 X 40	4280	0.012			

WV uF	63			100		
	DxL	R.C.	E.S.R	DxL	R.C.	E.S.R
33	6.3 X 11	126	1	8 X 11	260	0.5
56	8 X 14	260	0.5	10 X 16	408	0.26
100	10 X 16	400	0.28	10 X 25	595	0.16
220	10 X 25	595	0.16	12.5 X 35	1010	0.08
330	12.5 X 30	875	0.096	13 X 40	1280	0.06
470	12.5 X 35	1010	0.07	16 X 40	1900	0.04
560	12.5 X 40	1140	0.062	18 X 35	2130	0.036
680	13 X 40	1280	0.06	18 X 40	1890	0.036
820	16 X 35	1650	0.049			
1000	18 X 35	1720	0.04			
1500	18 X 40	2470	0.032			

R.C. : Rated ripple current (mA rms) at 105°C ,impedance(E.S.R) at 20°C , 100kHz)