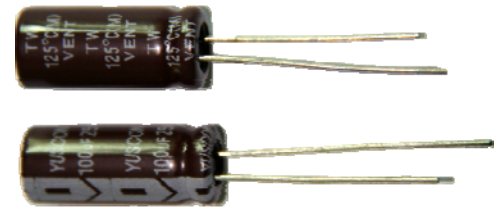


Aluminum Electrolytic Capacitors

YUSCON®

TW Series

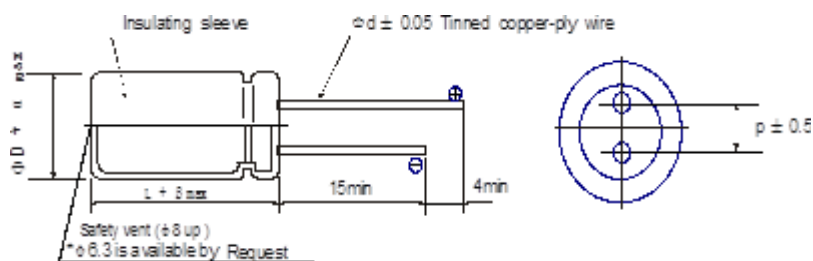
- High temperature range, for +125°C use
- Highly dependable reliability withstanding load life of 2,000 hours at +125°C
- Suited for automobile electronics where heavy duty services are indispensable.
- Rohs compliance.



SPECIFICATIONS

Item	Characteristics											
Category Temperature Range	- 40 ~ +125°C (10~250V), -25~+125°C (350~450V)											
Voltage Range	10 ~450V											
Nominal Cap. Range	1 ~ 4700 µ F											
Capacitance Tolerance	- 20% ~ + 20% (at 20°C, 120Hz)											
Leakage Current	Rated Voltage	10~100								160~450		
	Leakage Current	After 1 minutes' application of rated voltage, leakage current is not more than 0.03CV or 4 µ A, whichever is greater.								CV≤1000:I=0.1CV+40(µ A)max. (1 minutes) CV>1000:I=0.04CV+100(µ A)max. (1 minutes)		
Dissipation Factor(tan δ) (at 120Hz, +20°C)	Rated Voltage(V)	10	16	25	35	50	63	80	100	160~250	250~450	
	tan δ	0.20	0.16	0.14	0.12	0.10	0.10	0.08	0.08	0.20	0.24	
Low Temp. Impedance Stability at 120Hz	W. V .		10	16	25	35	50	63	80	100	160~250V	350~450V
	Z(- 25°C) / Z(+ 20°C)		3	2	2	2	2	2	2	2	3	6
	Z(- 40°C) / Z(+ 20°C)		4	4	4	4	4	4	4	4	6	—
High Temp. Load Test	After 2000 hours' application of the DC rated voltage at +125°C, the capacitor shall meet the following limmits.											
	Capacitance Change ... ≤ ±30% of the initial measured value(10~100V)											
	... ≤ ±30% of the initial measured value(160~450V)											
	tan δ ... ≤ 300% of the initial specified value(10~100V)											
	... ≤ 200% of the initial specified value(160~450V)											
High Temp. Non-Load Test	DC Leakage Current ... ≤ the initial specified value											
	After leaving capacitors under no load at 125°C for 1000 hours, they meet the requirements for edurance characteristics listed above.											

DRAWING



	8	10	13	16	18
ΦD	8	10	13	16	18
β	0.8	0.8	1	1	1
P	3.5	5	5	7.5	7.5
Φd	0.6	0.6	0.6	0.8	0.8

Frequency coefficient of the ripple current

Freq.(Hz)	120	300	1K	10K	100K
Cap.(µ F)					
1000>CV	0.50	0.64	0.83	0.90	0.30
1000≤CV	0.67	0.79	0.91	0.95	1.00

◆ PART NUMBERING SYSTEM

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

TW Series

■Standard Ratings

Cap. (μ F)	V(Code) Item Code	10			16			25			35			50		
		Case Size	Impedance	Rated	Case Size	Impedance	Rated	Case Size	Impedance	Rated	Case Size	Impedance	Rated	Case Size	Impedance	Rated
		Φ DxL (mm)	(Ω) max.	Ripple (mA _{rms})	Φ DxL (mm)	(Ω) max.	Ripple (mA _{rms})	Φ DxL (mm)	(Ω) max.	Ripple (mA _{rms})	Φ DxL (mm)	(Ω) max.	Ripple (mA _{rms})	Φ DxL (mm)	(Ω) max.	Ripple (mA _{rms})
1	10													8X11.5	2.00	35
2.2	2R2													8X11.5	1.80	50
3.3	3R3													8X11.5	1.50	60
4.7	4R7													8X11.5	1.15	85
10	100													8X11.5	0.75	180
22	220													8X11.5	0.50	250
33	330													8X11.5	0.45	300
47	470													8X11.5	0.35	440
100	101				8X11.5	0.32	340	8X11.5	0.13	500	10X12.5	0.150	620	10X12.5	0.18	555
220	221	8X11.5	0.26	340	10X12.5	0.15	620	10X12.5	0.10	680	10X16	0.094	790	10X20	0.098	930
330	331	10X12.5	0.15	620	10X12.5	0.10	680	10X16	0.075	945	10X20	0.075	950	13X20	0.070	1330
470	471	10X12.5	0.10	680	10X16	0.075	945	10X20	0.057	1100	13X20	0.058	1330	13X25	0.055	1650
1000	102	10X20	0.057	1100	13X20	0.042	1490	13X25	0.033	1750	16X25	0.031	2010	16X31.5	0.031	2430
2200	222	13X25	0.033	1750	16X25	0.024	2300	16X31.5	0.020	2710	18X35.5	0.025	2790			
3300	332	16X25	0.024	2300	16X31.5	0.020	2710	18X31.5	0.017	3310						
4700	472	16X31.5	0.020	2710	18X31.5	0.018	3270									

Cap. (μ F)	V(Code) Item Code	63			80			100		
		Case Size	Impedance	Rated	Case Size	Impedance	Rated	Case Size	Impedance	Rated
		Φ DxL (mm)	(Ω) max.	Ripple (mA _{rms})	Φ DxL (mm)	(Ω) max.	Ripple (mA _{rms})	Φ DxL (mm)	(Ω) max.	Ripple (mA _{rms})
4.7	4R7							8X11.5	2.00	130
10	100							8X11.5	1.50	150
22	220	8X11.5	2.00	130	8X11.5	1.50	150	10X12.5	0.80	480
33	330	8X11.5	1.50	150	10X12.5	0.80	480	10X12.5	0.80	480
47	470	10X12.5	0.59	530	10X12.5	0.80	480	10X16	0.55	630
100	101	10X16	0.41	690	10X20	0.39	790	13X20	0.25	990
220	221	13X20	0.16	1050	13X25	0.18	1240	16X25	0.11	1500
330	331	13X25	0.12	1290	13X31.5	0.16	1390	16X31.5	0.079	1790
470	471	13X31.5	0.097	1460	16X25	0.11	1500			

→ Rated Ripple(mA_{rms}) at 125°C100KHz→ Impedance(Ω max.) at 20°C 100KHz

TW Series

■ Standard Ratings

Cap. (μ F)		V(Code) Item Code	160		200		250		350		400		450	
			Case Size	Rated	Case Size	Rated	Case Size	Rated	Case Size	Rated	Case Size	Rated	Case Size	Rated
			Φ DxL (mm)	Ripple (mArms)	Φ DxL (mm)	Ripple (mArms)	Φ DxL (mm)	Ripple (mArms)	Φ DxL (mm)	Ripple (mArms)	Φ DxL (mm)	Ripple (mArms)	Φ DxL (mm)	Ripple (mArms)
4.7	4R7							10X20	53	10X20	53	10X25	58	
10	100			10X20	78	10X20	78	10X25	85	10X25	86	13X20	86	
22	220	10X20	115	10X25	126	10X25	128	13X25	139	13X31.5	142	16X25	154	
33	330	10X25	154	13X20	157	13X25	171	16X25	189	16X25	189	16X31.5	203	
47	470	13X20	187	13X25	204	16X25	225	16X31.5	243	16X31.5	243			
68	680	13X25	245	16X20	250	16X31.5	292							
100	101	16X25	329	16X25	329									
150	151	16X31.5	434											

→ Rated Ripple(mArms) at 125℃ 100KHz