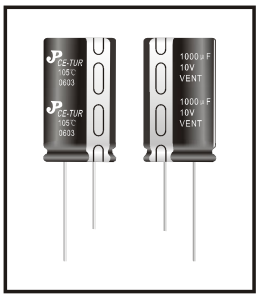
TUR Series

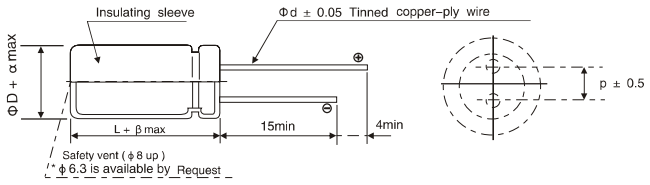


- Wide operating temperature range of – 40 ~ + 105℃
- Standard series for general–purpose
- Voltage range of 6.3 ~ 450V
- Load life of 1000 hours at 105℃

■ SPECIFICATIONS

Item	Characteristics		
Category Temperature Range	–40 ~+105℃	–40 ~+105℃	–25 ~+105℃
Voltage Range	6.3 ~100 V.DC	160 ~350 V.DC	400 ~450 V.DC
Nominal Cap. Range	0.1 ~15000 μ F	0.47 ~470 μ F	1 ~100 μ F
Capacitance Tolerance	– 20% ~ + 20% (at 20℃, 120Hz)		
Leakage Current	WV: 6.3V~100V / 160 V~450V L.C.: I =0.01CV or 3(μ A) Whichever is greater.(after 2min) / I =0.03CV or 4(μ A) Whichever is greater.(after 1min) / I = 0.02CV + 15(μ A) .(after 5min) Where,I: Max Leakage Current(μ A), C: Nominal Capacitance(μ F), V: Rated Voltage(V) (at 20℃)		
Dissipation Factor (tan δ) (at 120Hz, +20℃)	WV: 6.3 / 10 / 16 / 25 / 35 / 50 / 63 / 100 / 160~250 / 350~450 tan δ: 0.22 / 0.19 / 0.16 / 0.14 / 0.12 / 0.10 / 0.09 / 0.08 / 0.15 / 0.20 Add 0.02 per 1,000 μ F for more than 1,000 μ F items.		
Low Temp. Impedance Stability at 120Hz	W. V.: 6.3 / 10 / 16 / 25~100 / 160~350 / 400~450 Z(– 25℃)/Z (+ 20℃): 4 / 3 / 2 / 2 / 3 / 8 Z(– 40℃)/Z (+ 20℃): 8 / 6 / 4 / 3 / 4 / –		
High Temp. Load Test	After 1000 hours 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 500 hours at105℃ with no voltage applied, voltage treatment of JIS–C–5102 article 4–4 is to be given and then measurement shall be made, at which time requirements specified in the table "High Temperature Loading" can be met.		

● DRAWING



Unit:(mm)

ΦD	5	6.3	8	10	13	16	18
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5
Φd	0.5			0.6		0.8	
β	1.0			1.5			
α	0.5						

● MULTIPLIER FOR RIPPLE CURRENT

(1) Frequency Coefficient

Freq.(Hz) / Cap(μ F)	60(50)	120	300	1K	10K
0.1~47	0.75	1.00	1.35	1.55	2.00
68~680	0.80	1.00	1.25	1.34	1.50
1000~15000	0.85	1.00	1.10	1.13	1.15

(2)Temperature Coefficient

Ambient Temperature(℃)	40	60	70	85	105
Coefficient	2.4	2.1	1.78	1.65	1

TUR Series

■ STANDARD RATINGS

WV(vdc) / Parameter / Cap.(μF)	6.3		10		16		25		35		50		63	
	ΦD×L (mm)	Ripple Current (mArms)	ΦD×L (mm)	Ripple Current (mArms)	ΦD×L (mm)	Ripple Current (mArms)	ΦD×L (mm)	Ripple Current (mArms)	ΦD×L (mm)	Ripple Current (mArms)	ΦD×L (mm)	Ripple Current (mArms)	ΦD×L (mm)	Ripple Current (mArms)
0.10											5×11	1	5×11	2
0.22											5×11	2	5×11	3
0.33											5×11	3	5×11	4
0.47											5×11	6	5×11	8
0.68											5×11	13	5×11	15
1											5×11	16	5×11	18
1.5											5×11	20	5×11	22
2.2											5×11	24	5×11	26
3.3											5×11	29	5×11	32
4.7											5×11	35	5×11	38
6.8											5×11	42	5×11	46
10									5×11	39	5×11	51	5×11	56
15									5×11	45	5×11	62	6.3×11	78
22							5×11	70	5×11	65	5×11	75	6.3×11	95
33							5×11	75	5×11	80	6.3×11	106	6.3×11	116
47					5×11	81	5×11	90	6.3×11	110	6.3×11	127	6.3×11	164
68			5×11	60	5×11	98	6.3×11	125	6.3×11	132	8×11.5	180	10×12.5	229
100	5×11	99	5×11	105	6.3×11	137	6.3×11	151	8×11.5	189	8×11.5	253	10×16	301
150	6.3×11	139	6.3×11	150	6.3×11	167	6.3×11	218	10×12.5	269	10×16	340	10×20	406
220	6.3×11	168	6.3×11	150	6.3×11	298	8×11.5	307	10×12.5	326	10×16	449	10×20	532
330	6.3×11	206	6.3×11	255	8×11.5	400	8×14	412	10×16	437	10×20	595	13×20	708
470	8×11.5	290	8×11.5	440	8×11.5	575	10×16	536	10×16	569	13×20	771	13×25	921
680	10×12.5	405	8×16	492	8×16	595	10×16	698	13×20	803	13×25	1,001	16×25	1,228
1000	10×12.5	491	10×16	680	10×20	707	10×20	918	13×25	1,062	13×25	1,360	16×31.5	1,630
1500	10×20	677	10×20	742	10×20	936	13×20	1,109	16×25	1,290	16×31.5	1,578	18×40	1,993
2200	10×20	770	10×20	1,052	10×30	1,150	13×25	1,370	16×25	1,560	16×35.5	2,019		
3300	13×20	1,067	13×20	1,548	13×35	1,468	16×25	1,794	16×35.5	1,992	18×35.5	2250		
4700	13×20	1220	13×25	1,800	16×25	1,813	16×30	2,264	18×35.5	2,200				
6800	13×25	1450	16×25	2,010	16×35	2,184	18×35	2,350						
10000	16×25	1680	18×25	2,550										
15000	18×35.5	2,396												

WV(vdc) / Parameter / Cap.(μF)	100		160		200		250		350		400		450	
	ΦD×L (mm)	Ripple Current (mArms)	ΦD×L (mm)	Ripple Current (mArms)	ΦD×L (mm)	Ripple Current (mArms)	ΦD×L (mm)	Ripple Current (mArms)	ΦD×L (mm)	Ripple Current (mArms)	ΦD×L (mm)	Ripple Current (mArms)	ΦD×L (mm)	Ripple Current (mArms)
0.47	5×11	12	6.3×11	11	6.3×11	11	6.3×11	11						
0.68	5×11	15	6.3×11	13	6.3×11	13	6.3×11	13						
1	5×11	18	6.3×11	16	6.3×11	16	6.3×11	16	8×11.5	19	8×11.5	19	8×11.5	16
1.5	5×11	22	6.3×11	19	6.3×11	19	8×11.5	23	10×12.5	27	8×11.5	27	10×12.5	22
2.2	5×11	26	6.3×11	23	8×11.5	28	8×11.5	28	10×12.5	32	8×11.5	32	10×12.5	27
3.3	5×11	32	8×11.5	34	8×11.5	34	10×12.5	39	10×16	43	8×11.5	43	10×16	36
4.7	5×11	38	8×11.5	40	10×12.5	47	10×16	51	10×16	51	10×12.5	51	10×20	47
6.8	6.3×11	53	10×12.5	56	10×16	62	10×16	62	10×20	67	10×20	67	13×20	66
10	6.3×11	64	10×16	75	10×16	75	10×16	75	10×20	82	10×20	96	13×20	80
15	8×11.5	93	10×16	92	10×20	100	10×20	100	13×20	118	13×20	128	13×25	107
22	8×11.5	112	10×20	121	13×20	143	13×20	143	13×25	155	13×20	155	13×25	144
33	10×12.5	159	10×20	175	13×20	175	13×20	175	16×25	211	13×25	211	16×25	193
47	10×16	208	13×20	208	13×25	227	13×25	227	16×31.5	276	16×25	289	16×35.5	272
68	10×20	274	13×25	273	16×25	303	16×25	303	16×35.5	248	16×35.5	392	18×31.5	300
100	10×20	389	13×25	368	16×31.5	402	16×35.5	422	18×40	475	18×35.5	420		
150	13×25	520	16×25	492	16×35.5	543	18×40	582						
220	13×25	699	16×25	657	18×35.5	705								
330	16×25	856	18×35.5	863	22×40	790								
470	16×31.5	1,117	18×40	920										
680	18×40	1,588												
1000														
1500														
2200														
3300														
4700														
6800														
10000														
15000														

→ Rated Ripple Current (mArms) at 105℃ 120Hz

→ Case Size: ΦD×L(mm)