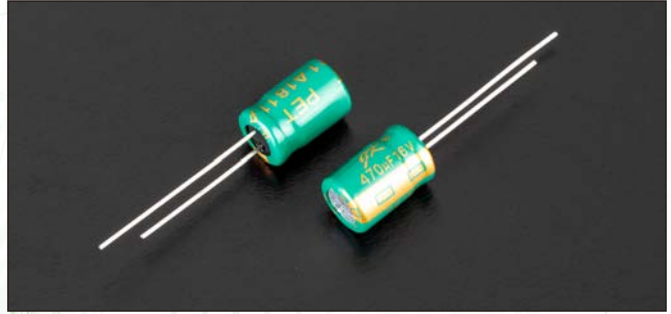


TC Series

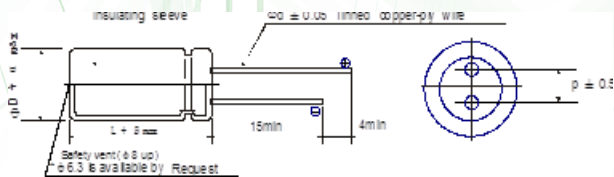
- 105°C High ripple current , Low Impedance.Long Life
- 3000 hours guaranteed for $\Phi D \leq \Phi 5 \sim 6.3$; 5000 hours guaranteed for $\Phi D \geq \Phi 8$
- Used in communication equipments,switching power supply,etc
- Rohs compliance.



◆ SPECIFICATIONS

Item	Characteristics	
Operating Temperature Range	-40 ~ +105°C	
Voltage Range	6.3 ~ 100 V.DC	
Nominal Cap. Range	6.8 ~ 18000 μ F	
Capacitance Tolerance	- 20% ~ + 20% (at 20°C, 120Hz)	
Leakage Current	I = 0.01CV or 3(μ A) whichever is greater.(after 2 minutes) where, I: Max Leakage Current(μ A), C: Nominal Capacitance(μ F), V: Rated Voltage(V)(at 20°C)	
Dissipation Factor (tan δ) (at 120Hz, +20°C)	WV	6.3 10 16 25 35 50 63 100
	tan δ	0.22 0.19 0.16 0.14 0.12 0.1 0.09 0.08
	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
	Z(-25°C)/Z(+20°C)	4 3 2 2
	Z(-40°C)/Z(+20°C)	8 6 4 3
Impedance(Ω)	See case size table	
High Temp. Load Test	After $\Phi D \leq \Phi 5 \sim 6.3$; 2000 H; $\Phi D \geq \Phi 8$: 5000 H; application of DC rated working voltage at +105°C, the capacitor shall meet the following limits. Capacitance change ... $\leq \pm 25\%$ of the initial measured value Tan δ ... $\leq 200\%$ of the initial specified value DC leakage current ... \leq the initial specified value	
High Temp. Non-Load Test	After storage for 1000 hours at 105°C 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



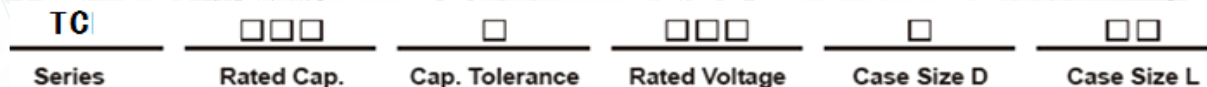
ΦD	5	6.3	8	10	13	16	18
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5
β	+1.5						
α	+0.5						

▼ MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

Cap(μ F)	Freq.(HZ)	120	1K	10K	100K
6.8~680		0.49	0.73	0.92	1.00
820~1800		0.60	0.80	0.96	1.00
2200~18000		0.70	0.85	0.98	1.00

◆ PART NUMBERING SYSTEM



TC Series

WV(Vdc)	6.3V					WV(Vdc)	10V				
	ΦDxL	Ripple current	Impedance				ΦDxL	Ripple current	Impedance		
			(mm)	20°C	-10°C				(mm)	20°C	-10°C
				105°C, 100KHZ	100KHZ					100KHZ	105°C, 100KHZ
Cap (μF)					Cap (μF)						
150	5X11	210	0.58	2.3	100	5X11	210	0.58	2.3		
330	6.3X11	340	0.22	0.87	220	6.3X11	340	0.22	0.87		
680	8X12	640	0.13	0.52	470	8X12	640	0.13	0.52		
820	8X14	865	0.08	0.32	680	8X14	840	0.087	0.35		
1000	8X16	840	0.087	0.35	1000	8X16	1210	0.06	0.24		
1200	8X20	1050	0.069	0.27	1200	10X16	1400	0.046	0.18		
1200	10X16	1210	0.066	0.24	1500	10X16	1650	0.042	0.17		
1500	10X20	1400	0.05	0.18	2200	10X20	1910	0.031	0.12		
1800	10X20	1450	0.049	0.16	2700	13X20	2210	0.030	0.115		
2200	10X20	1650	0.042	0.17	3300	13X25	2230	0.027	0.089		
2700	10X25	1940	0.042	0.12	4700	13X32	2880	0.020	0.065		
3300	13X20	1900	0.035	0.12	5600	13X35	3350	0.017	0.056		
4700	13X30	2650	0.024	0.065	6800	16X32	3450	0.017	0.056		
5600	13X35	2880	0.02	0.078	6800	18X25	3140	0.019	0.049		
6800	13X40	3350	0.017	0.056	8200	16X36	3610	0.015	0.044		
8200	16X32	3450	0.017	0.05	8200	18X32	4170	0.015	0.04		
10000	16X36	3610	0.015	0.044	10000	18X36	4080	0.013	0.038		
15000	18X36	4220	0.014	0.038	10000	18X40	4220	0.014	0.038		
18000	18X40	4280	0.012	0.032	12000	18X40	4280	0.012	0.032		

WV(Vdc)	16V					WV(Vdc)	25V				
	ΦDxL	Ripple current	Impedance				ΦDxL	Ripple current	Impedance		
			(mm)	20°C	-10°C				(mm)	20°C	-10°C
				105°C, 100KHZ	100KHZ					100KHZ	105°C, 100KHZ
Cap (μF)					Cap (μF)						
56	5X11	210	0.58	2.3	47	5X11	210	0.58	2.3		
120	6.3X11	340	0.22	0.87	100	6.3X11	340	0.22	0.87		
330	8X12	640	0.13	0.52	220	8X12	640	0.13	0.52		
470	8X12	865	0.087	0.35	330	8X12	510	0.27	1.08		
680	8X16	1430	0.06	0.24	330	8X14	840	0.08	0.32		
1000	10X16	1455	0.046	0.18	470	10X20	1216	0.06	0.24		
1500	10X20	1900	0.035	0.12	680	10X20	1400	0.046	0.18		
2200	10X25	2230	0.027	0.089	820	10X25	1650	0.042	0.17		
2700	13X20	2530	0.027	0.078	1000	10X28	1900	0.031	0.12		
3300	13X25	2880	0.02	0.065	1200	13X25	2210	0.030	0.11		
4700	16X25	3450	0.017	0.056	1500	13X25	2230	0.027	0.089		
5600	18X32	4170	0.015	0.05	2200	13X34	2880	0.020	0.065		
6800	18X36	4200	0.014	0.04	2700	13X40	3350	0.017	0.056		
8200	18X36	4220	0.014	0.038	3300	16X32	3450	0.019	0.049		
10000	18X40	4280	0.012	0.032	4700	18X36	4220	0.014	0.038		

WV(Vdc)	35V					WV(Vdc)	50V				
	ΦDxL	Ripple current	Impedance				ΦDxL	Ripple current	Impedance		
			(mm)	20°C	-10°C				(mm)	20°C	-10°C
				105°C, 100KHZ	100KHZ					100KHZ	105°C, 100KHZ
Cap (μF)					Cap (μF)						
33	5X11	210	0.58	2.3	22	5X11	180	0.7	2.8		
56	6.3X11	340	0.22	0.87	56	6.3X11	295	0.3	1.2		
150	8X12	640	0.13	0.52	100	8X12	555	0.17	0.68		
220	8X14	840	0.087	0.35	120	8X16	730	0.12	0.48		
330	8X16	1210	0.06	0.24	150	8X16	760	0.12	0.48		
470	10X16	1400	0.046	0.18	180	8X20	910	0.091	0.36		
560	10X20	1650	0.042	0.17	220	8X20	1050	0.084	0.34		
680	10X20	1910	0.031	0.12	330	10X16	1440	0.055	0.22		
1000	13X25	2230	0.027	0.089	470	10X20	1690	0.043	0.17		
1200	13X30	2650	0.024	0.078	560	13X20	1950	0.034	0.11		
1500	13X34	2880	0.02	0.065	680	13X25	2310	0.03	0.1		
1800	16X25	2930	0.021	0.06	820	13X20	2210	0.034	0.1		
2200	16X32	3450	0.017	0.05	1000	13X25	2555	0.036	0.097		
2700	18X32	4170	0.015	0.044	1200	13X25	2740	0.026	0.07		
3300	18X36	4220	0.014	0.038	1500	13X36	3150	0.019	0.057		
3900	18X40	4280	0.012	0.032	1800	16X32	3635	0.016	0.048		
					2200	16X36	3680	0.015	0.046		
					2700	16X40	3800	0.014	0.038		

WV(Vdc)	63V					WV(Vdc)	100V				
	ΦDxL	Ripple current	Impedance				ΦDxL	Ripple current	Impedance		
			(mm)	20°C	-10°C				(mm)	20°C	-10°C
				105°C, 100KHZ	100KHZ					100KHZ	105°C, 100KHZ
Cap (μF)					Cap (μF)						
15	5X11	55	2.3	9.3	6.8	5X11	55	2.3	9.3		
33	6.3X11	115	1.2	5.0	15	6.3X11	115	1.2	5.0		
56	8X12	232	0.63	2.8	47	8X16	288	0.43	1.8		
82	8X12	288	0.45	2.1	68	10X12	357	0.31	1.5		
120	8X16	357	0.33	1.6	82	10X16	466	0.21	0.94		
180	10X16	466	0.21	0.94	100	10X16	531	0.20	0.84		
220	10X16	531	0.20	0.84	120	10X20	663	0.16	0.64		
330	10X20	784	0.12	0.45	150	10X20	795	0.14	0.62		
470	10X30	905	0.10	0.42	180	13X20	784	0.12	0.45		
560	13X30	1050	0.083	0.35	220	13X20	905	0.10	0.42		
680	13X35	1180	0.071	0.30	330	13X25	1180	0.071	0.27		
820	16X25	1570	0.054	0.20	470	16X25	1630	0.047	0.30		
1000	16X30	1630	0.047	0.17	560	16X32	2020	0.040	0.17		
1200	18X32	1790	0.040	0.15	680	16X36	1790	0.040	0.15		
1500	18X36	2330	0.036	0.13	820	18X35	2330	0.036	0.123		

