

TE Series

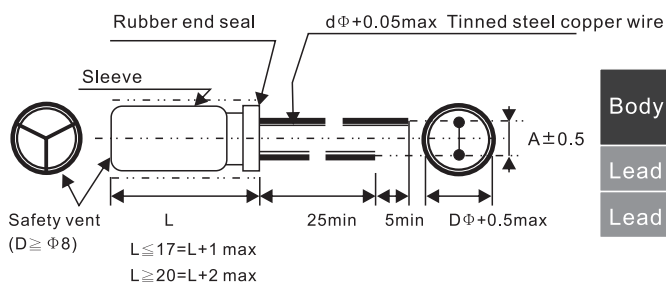


- 105°C, 2000~4000 hours LOW ESR series (紋波疊加)
- 採用了新型高穩定、高導電率電解液、高信賴技術

● SPECIFICATIONS

Items	Characteristics										
Category Temperature Range	- 40 to +105°C										
Rated Voltage Range	6.3V to 100 Vdc										
Capacitance Tolerance	± 20% (M) (at 20°C , 120Hz)										
Leakage Current	I=0.01CV or 3 μA , whichever is greater. Where, I :Max. Leakage current (μ A). C : Nominal capacitance (μ F) .V :Rated voltage(V) (at 20°C , after 2 minutes)										
Dissipation Factor (tan δ)	Rated voltage (Vdc)	6.3V	10V	16V	25V	35V	50V	63V	100V		
	tan δ (Max.)	0.22	0.19	0.16	0.14	0.12	0.10	0.08	0.08		
	For capacitance>1000uF.and 2% per another 1000uF (at 20°C , 120Hz)										
Low Temperature Characteristics	Impedance ration max at 120Hz										
	Working voltage	6.3v	10v	16v	25v	35v	50v	63v	100v		
	Z-25°C/ Z+20°C	4	3	2	2	2	2	2	2		
	Z-40°C/ Z+20°C	8	6	4	3	3	3	3	3		
Load . Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after the voltage is applied for the specific at 105°C										
	Capacitance change	≤ ±20% of the initial value							φ D	load life	
	DF (tan δ)	≤200 % of the initial specified value							φ 5~6.3	2000h	
	Leakage current	≤ The initial specified value							φ 8~10	3000h	
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1000 hours at 105°C without voltage applied.										
	Capacitance change	≤ ±20% of the initial value									
	DF (tan δ)	≤200 % of the initial specified value									
	Leakage current	≤ The initial specified value									
Ripple Current Multiplier	Temperature coefficient										
	Temperature(°C)	~55	60	70	85	105					
	Factor	2.20	2.10	2.00	1.75	1.00					
	Frequency coefficient										
	cap	freq	60	120	1k	10k	100k				
	~100		0.30	0.40	0.75	0.90	1.00				
100~1000		0.40	0.50	0.85	0.94	1.00					
1000up		0.50	0.75	0.90	0.95	1.00					

● Diagram: (Unit: mm)



Body Dia φD	5	6	8	10	13		16	18
					L ≤ 21	L ≥ 25		
Lead Dia φd	0.5			0.6	0.6	0.8	0.8	0.8
Lead Space A	2	2.5	3.5	5		7.5		7.5/10

Chip Type SMD

Miniature Type

General Purpose

High Frequency
Low Impedance

High Voltage
High Reliability

Non-polar Type

Large Size
Snap-in

Large Size
Screw

X Metallized
Polypropylene
Film Capacitors

● STANDARD RATING

Cap(μF)	Vdc Item	6.3v			10v		
		Case size D*L(mm)	Ripple Current (mA/ms)	Impedance (Ω)	Case size D*L(mm)	Ripple Current (mA/ms)	Impedance (Ω)
100		5*11	210	0.58	5*11	210	0.55
150		5*11	210	0.58	6.3*11	340	0.22
220		6.3*11	320	0.23	6.3*11	340	0.22
330		6.3*11	320	0.23	6.3*11 8*12	340 640	0.22 0.13
470		6.3*11 8*12	540 640	0.17 0.13	6.3*12 8*12	380 640	0.22 0.13
680		8*12	720	0.12	8*12 8*16	720 840	0.095 0.085
820		8*16	840	0.09	8*16	960	0.06
1000		8*12	860	0.10	8*16	980	0.080
		8*16	1110	0.08	8*20	1020	0.075
				0.08	10*17	1210	0.060
1200		10*17	1200	0.06	10*20	1400	0.046
1500		10*20	1400	0.05	10*20	1480	0.042
1650		10*20	1520	0.045	10*20	1650	0.042
2200		10*20	1550	0.045	10*20	1800	0.042
					10*25	1880	0.038
3300		10*25	1900	0.042	10*25	2130	0.037
					10*30	2210	0.035
					13*25	2350	0.030
4700		10*30	2150	0.035	10*35	2550	0.028
		13*25	2210	0.030	13*30	3010	0.020
5600		13*30	2650	0.022	16*25	2550	0.025
		16*20	2210	0.035			
6800		16*25	2550	0.028	16*30	3050	0.024
		18*20	2490	0.034			
8200		16*30	3050	0.022	18*32	3500	0.020
10000		16*36	3100	0.021	18*36	3600	0.019
12000		18*32	3500	0.020	18*40	3700	0.015
15000		18*36	3600	0.019			
22000		18*40	3800	0.015			

Maximum Ripple Current:(105°C 100KHz)

Maximum Impedance:(20°C 100KHz)



● STANDARD RATING

Cap(μF)	Vdc Item	16v			25v		
		Case size D*L(mm)	Ripple Current (mA/ms)	Impedance (Ω)	Case size D*L(mm)	Ripple Current (mA/ms)	Impedance (Ω)
10		5*11	210	0.58	5*11	210	0.55
22		5*11	210	0.58	5*11	210	0.22
33		5*11	210	0.58	5*11	210	0.22
47		5*11	210	0.58	5*11	210	0.22
68		5*11	210	0.58	6.3*11	340	0.22
100		5*11 6.3*11	340	0.22	6.3*11	340	0.22
180		8*12	640	0.22	8*12	640	0.13
220		6.3*11 8*12	360 640	0.22 0.13	6.5*15 8*12	600 640	0.14 0.13
330		8*12	640	0.13	8*14 8*16	800 840	0.10 0.087
470		8*12 8*14	750 820	0.090 0.087	8*16 8*20 10*17	890 1050 1210	0.073 0.069 0.060
560		8*16	950	0.087	10*20	1400	0.052
680		8*16 8*20	950 1050	0.080 0.069	10*16 10*20	1250 1400	0.058 0.042
820		8*20 10*17	1100 1300	0.059 0.046	10*20	1550	0.042
1000		8*20 8*24 10*20	1250 1300 1400	0.060 0.055 0.046	10*20 10*25	1550 1750	0.038 0.035
1200		10*20 13*21	1550 1700	0.046 0.042	13*25	2125	0.030
1500		10*20 13*21	1790 1900	0.042 0.034	13*25	2200	0.030
1650		10*25	1850	0.030	13*30	2400	0.028
2200		10*30 13*25	2050 2120	0.030 0.028	13*25 13*30	2400 2620	0.028 0.026
3300		10*35 13*26	2450	0.028 0.022	16*25 16*30	2950 3100	0.025 0.022
4700		13*36	2890	0.022	16*36	4030	0.020
6800		16*40	3600	0.017			
10000		18*40	3800	0.015			

Chip Type SMD
Miniature Type
General Purpose
High Frequency Low Impedance
High Voltage High Reliability
Non-polar Type
Large Size Snap-in
Large Size Screw
X Metallized Polypropylene Film Capacitors

Maximum Ripple Current:(105°C 100KHz)
Maximum Impedance:(20°C 100KHz)

● STANDARD RATING

Cap(μF)	Item	35v			50v		
		Case size D*L(mm)	Ripple Current (mA/ms)	Impedance (Ω)	Case size D*L(mm)	Ripple Current (mA/ms)	Impedance (Ω)
1		5*11	210	0.580	5*11	180	1.3
2.2		5*11	210	0.580	5*11	180	1.3
3.3		5*11	210	0.580	5*11	180	1.3
4.7		5*11	210	0.580	5*11	180	1.3
10		5*11	210	0.580	5*11	180	1.3
22		5*11	210	0.580	5*11	180	0.70
33		5*11	210	0.580	6.3*11	290	0.60
47		5*11	290	0.300	6.3*11	290	0.50
		6.3*11	340	0.220	8*12	480	0.45
68		6.3*11	340	0.220	8*12	550	0.17
100		6.3*11	480	0.180	8*12	550	0.12
		8*12	640	0.130			
150		8*12	640	0.130	10*17	1050	0.084
220		8*16	840	0.087	10*15	1100	0.062
		10*17	910	0.080	10*20	1220	0.060
330		8*20	1100	0.069	10*20	1420	0.053
		10*17	1200	0.060	13*20	1650	0.045
470		10*17	1280	0.052	13*20	1690	0.040
		10*20	1400	0.046			
680		10*20	1600	0.045	13*25	2150	0.034
		13*21	1800	0.042			
820		13*21	2200	0.034	13*25	2400	0.030
1000		13*21	2300	0.032	13*25	2450	0.026
		13*25	2400	0.030	16*25	2500	0.024
1200		13*25	2520	0.028	16*36	2700	0.026
1500		13*30	2900	0.022	18*36	3100	0.019
2200		16*30	3500	0.022	18*32	3600	0.017
					18*36		
3300		18*25	3900	0.021	18*40	3800	0.013
		18*36	4200	0.019			
4700		18*40	4400	0.015			

Maximum Ripple Current:(105°C 100 KHz)

Maximum Impedance:(20°C 100KHz)



● STANDARD RATING

Vdc Item Cap(μF)	63v			100v		
	Case size D*L(mm)	Ripple Current (mA/ms)	Impedance (Ω)	Case size D*L(mm)	Ripple Current (mA/ms)	Impedance (Ω)
1	5*11	55	2.300	5*11	55	2.300
2.2	5*11	55	2.300	5*11	55	2.300
3.3	5*11	55	2.300	5*11	55	2.300
4.7	5*11	55	2.300	5*11	55	2.300
10	5*11	55	2.300	6.3*11	115	1.200
22	6.3*11	115	1.200	8*12	180	0.700
33	6.3*11	115	1.200	8*16	290	0.450
47	8*12	230	0.630	10*12 10*17	290 350	0.43 0.38
68	8*12	230	0.630	10*20	370	0.310
100	10*13	280	0.430	10*20	510	0.200
150	10*13	360	0.330	13*25	780	0.140
220	10*20 13*21	560 690	0.22 0.160	13*25	850	0.100
330	13*25	730	0.160	16*25	1150	0.080
470	13*25	850	0.120	16*32	1650	0.045
680	16*25	1250	0.073	18*36	1790	0.040
820	16*32	1570	0.054	18*40	2400	0.035
1000	16*32	1570	0.054			
1200	18*30	1630	0.047			
1500	18*36	1790	0.040			

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