

- Miniaturized, Long Life, Low Impedance.
- 小型化尺寸、長壽命、低阻抗

■ SPECIFICATIONS 規格表

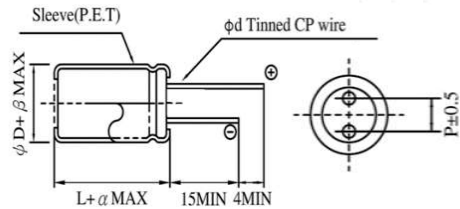
Item	Performance Characteristics 特性									
Operating Temperature Range 工作溫度範圍	-40 ~ +105°C									
Voltage Range 額定電壓範圍	6.3 ~ 100V									
Capacitance Tolerance 靜電容量容許差	±20% at 120Hz,20°C									
Leakage Current 漏電流	After 2 minutes application of rated voltage, leakage current is lower than 0.01CV or 3(μA), whichever is greater. I = 0.01CV或3 (μA) 以下 (2分鐘) I = Leakage Current (漏電流) C = Capacitance (靜電容量) V = Rated Voltage (額定電壓)									
Tangent of loss angle 損失角正切值	For capacitance of more than 1000 μF, add 0.02 for every increase of 1000 μF 對於超過1000 μF產品，每增加1000 μF，其值增加0.02									
	Rated voltage (V) 額定電壓	6.3	10	16	25	35	50	63	100	
	Tanδ (MAX)	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08	
(Frequency : 120Hz , Temperature : 20°C)										
Stability at Low Temperature 溫度特性	Rated voltage (V)		6.3	10	16	25	35	50	63	100
	Impedance Ratio 阻抗比	Z-25°C/Z+20°C	2	2	2	2	2	2	2	2
		ZT/Z 20 (MAX)	Z-40°C/Z+20°C	3	3	3	3	3	3	3
(Frequency:120Hz)										
Endurance 耐久性	After applying rated voltage with rated ripple current for specified time at 105°C, the capacitors shall meet the following requirements. 在105°C環境中，不超過額定電壓的範圍內疊加額定紋波電流，連續加載表內時間後，符合下列要求									
	Case size 鋁殼尺寸	Life time 時間(hrs)	Capacitance Change 靜電容量變化率			Within ±25% of initial Value(6.3V、10V:±30%) 初期值的±25%以內(6.3V、10V:±30%)				
	φD≤6.3	6000	Tangent of loss angle (Tanδ) 損失角正切值			Not exceeding 200% of initial specified value 規格值200%以下				
	φD=8	8000	Leakage current 漏電流			Not exceeding of initial specified value 規格值以下				
	φD≥10	10000								
Shelf Life 高溫無負荷	After storing the capacitors under no load at 105 °C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20 °C, they shall meet the specified values for the endurance characteristics listed above. 在105°C下無負荷放置1000小時後，在20 °C下依據JIS C 5101-4 4.1項進行電壓處理後，將滿足以上耐久性的特性值									

■ Frequency Coefficient of Allowable Ripple Current 容許紋波電流的頻率係數

V	Frequency	120Hz	1KHz	10KHz	100KHz ~
	Cap(μF)				
6.3~100	4.7~1000	0.60	0.87	0.95	1.00
	1200~8200	0.75	0.90	0.95	1.00

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■ RADIAL LEAD TYPE 尺寸圖



ΦD	5	6.3	8	10	12.5	16	18
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5
Φd	0.5	0.5	0.6	0.6	※0.6	0.8	0.8
β	0.5	0.5	0.5	0.5	0.5	0.5	0.5
α	L<20 : 1.5						
	L≥20 : 2.0						

※In case L ≥ 35 for the ϕ12.5 dia. unit, lead dia. ϕd = 0.8mm

■ DIMENSIONS 尺寸

Rated Ripple Current(mA r.m.s. at 105°C,100KHz)

W.V	6.3V				10V			
S.V	8V				13V			
Item Cap(μF)	Size D x L(mm)	Ripple	Impedance(ΩMAX)		Size D x L(mm)	Ripple	Impedance(ΩMAX)	
			20°C/100KHz	-10°C/100KHz			20°C/100KHz	-10°C/100KHz
150					5 x 11	345	0.22	0.80
220	5 x 11	345	0.22	0.80				
330					6.3 x 11	540	0.094	0.35
470	6.3 x 11	540	0.094	0.35				
680	8 x 11.5	945	0.056	0.19	8 x 11.5	945	0.056	0.19
820	8 x 11.5	945	0.056	0.19				
1000	8 x 15	1250	0.045	0.15	8 x 15	1250	0.045	0.15
					10 x 12.5	1330	0.039	0.14
1200	8 x 15	1250	0.045	0.15				
	10 x 12.5	1330	0.039	0.14				
1500	8 x 20	1500	0.029	0.11	8 x 20	1500	0.029	0.11
					10 x 16	1760	0.028	0.10
1800	10 x 16	1760	0.028	0.10	10 x 20	1960	0.020	0.060
2200	10 x 20	1960	0.020	0.060	10 x 25	2250	0.018	0.054
2700	10 x 25	2250	0.018	0.054				
3300	10 x 25	2250	0.018	0.054	10 x 30.5	2480	0.016	0.052
					12.5 x 20	2480	0.017	0.043
3900	10 x 30.5	2480	0.016	0.052	12.5 x 25	2900	0.015	0.038
	12.5 x 20	2480	0.017	0.043				
4700	12.5 x 25	2900	0.015	0.038	12.5 x 30.5	3450	0.013	0.033
					16 x 20	3250	0.015	0.038
5600	12.5 x 30.5	3450	0.013	0.033	12.5 x 35.5	3570	0.012	0.031
					16 x 25	3630	0.013	0.035
6800	12.5 x 35.5	3570	0.012	0.031	16 x 25	3630	0.013	0.035
	16 x 25	3630	0.013	0.035	18 x 20	3300	0.014	0.038
8200	16 x 25	3630	0.013	0.035	18 x 25	3550	0.012	0.035
	18 x 20	3300	0.014	0.038				

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Rated Ripple Current(mA r.m.s. at 105°C,100KHz)

W.V S.V	16V 20V				25V 32V			
Item Cap(μF)	Size D x L(mm)	Ripple	Impedance(ΩMAX)		Size D x L(mm)	Ripple	Impedance(ΩMAX)	
			20°C/100KHz	-10°C/100KHz			20°C/100KHz	-10°C/100KHz
47					5 x 11	345	0.22	0.80
68					5 x 11	345	0.22	0.80
100	5 x 11	345	0.22	0.80				
150					6.3 x 11	540	0.094	0.35
220	6.3 x 11	540	0.094	0.35				
330					8 x 11.5	945	0.056	0.19
390					8 x 15	1250	0.045	0.15
470	8 x 11.5	945	0.056	0.19	10 x 12.5	1330	0.039	0.14
560					8 x 20	1500	0.029	0.11
680	8 x 15	1250	0.045	0.15	10 x 16	1760	0.028	0.10
	10 x 12.5	1330	0.039	0.14				
820					10 x 20	1960	0.020	0.060
1000	8 x 20	1500	0.029	0.11	10 x 25	2250	0.018	0.054
	10 x 16	1760	0.028	0.10				
1500	10 x 20	1960	0.020	0.060	10 x 30.5	2480	0.016	0.052
					12.5 x 20	2480	0.017	0.043
1800	10 x 25	2250	0.018	0.054	12.5 x 25	2900	0.015	0.038
2200	10 x 30.5	2480	0.016	0.052	12.5 x 30.5	3450	0.013	0.033
	12.5 x 20	2480	0.017	0.043	16 x 20	3250	0.015	0.038
2700	12.5 x 25	2900	0.015	0.038	12.5 x 35.5	3570	0.012	0.031
					16 x 25	3630	0.013	0.035
3300	12.5 x 30.5	3450	0.013	0.033	16 x 25	3630	0.013	0.035
	16 x 20	3250	0.015	0.038	18 x 20	3300	0.014	0.038
4700	16 x 25	3630	0.013	0.035	18 x 25	3550	0.012	0.035

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Rated Ripple Current(mA r.m.s. at 105°C,100KHz)

W.V S.V Cap(μF)	Item	35V 44V				50V 63V			
		Size D x L(mm)	Ripple	Impedance(ΩMAX)		Size D x L(mm)	Ripple	Impedance(ΩMAX)	
				20°C/100KHz	-10°C/100KHz			20°C/100KHz	-10°C/100KHz
4.7						5 x 11	180	1.20	4.50
10						5 x 11	180	1.20	4.50
27						5 x 11	238	0.34	1.18
33						5 x 11	238	0.34	1.18
47		5 x 11	345	0.22	0.80				
56						6.3 x 11	385	0.14	0.50
100		6.3 x 11	540	0.094	0.35	8 x 11.5	724	0.074	0.22
120						8 x 15	950	0.061	0.18
150						10 x 12.5	979	0.061	0.18
180						8 x 20	1190	0.046	0.14
220		8 x 11.5	945	0.056	0.19	10 x 16	1370	0.042	0.12
270		8 x 15	1250	0.045	0.15	10 x 20	1580	0.030	0.090
330		10 x 12.5	1330	0.039	0.14	10 x 25	1870	0.028	0.085
390		8 x 20	1500	0.029	0.11				
470		10 x 16	1760	0.028	0.10	12.5 x 20	2050	0.027	0.068
560		10 x 20	1960	0.020	0.060	12.5 x 25	2410	0.023	0.059
680		10 x 25	2250	0.018	0.054	12.5 x 30.5	2860	0.021	0.052
820		10 x 30.5	2480	0.016	0.052	12.5 x 35.5	2960	0.019	0.051
						16 x 20	2730	0.023	0.059
1000		12.5 x 20	2480	0.017	0.043	16 x 25	3010	0.021	0.056
1200		12.5 x 25	2900	0.015	0.038	16 x 30.5	3330	0.019	0.053
1500		12.5 x 30.5	3450	0.013	0.033	16 x 35.5	3500	0.018	0.050
		16 x 20	3250	0.015	0.038	18 x 25	3450	0.020	0.055
1800		12.5 x 35.5	3570	0.012	0.031				
2200		16 x 25	3630	0.013	0.035				

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Rated Ripple Current(mA r.m.s. at 105°C,100KHz)

W.V	63V				100V				
S.V	79V				125V				
Cap(μF)	Item	Size D x L(mm)	Ripple	Impedance(ΩMAX)		Size D x L(mm)	Ripple	Impedance(ΩMAX)	
				20°C/100KHz	-10°C/100KHz			20°C/100KHz	-10°C/100KHz
8.2					5 x 11	163		1.40	5.6
10		5 x 11	160	0.95	4.8				
18		5 x 11	173	0.88	3.5	6.3 x 11	267	0.57	2.3
22		6.3 x 11	278	0.35	1.4				
33					8 x 11.5	462		0.36	1.4
47		6.3 x 11	278	0.35	1.4	8 x 15	585	0.25	1.0
56					10 x 12.5	624		0.23	0.96
68					8 x 20	735		0.19	0.76
82		8 x 11.5	525	0.22	0.88	10 x 16	780	0.17	0.72
100		8 x 15	688	0.16	0.64	10 x 20	1040	0.12	0.52
						12.5 x 15	975	0.13	0.43
120		10 x 12.5	725	0.15	0.60	10 x 25	1170	0.11	0.47
150		8 x 20	861	0.12	0.48	12.5 x 20	1430	0.085	0.31
180		10 x 16	998	0.11	0.44				
220					12.5 x 25	1620		0.060	0.23
270		10 x 20	1200	0.078	0.31	12.5 x 30.5	1950	0.051	0.21
		12.5 x 15	1200	0.082	0.27	16 x 20	1750	0.058	0.21
330		10 x 25	1410	0.069	0.28	12.5 x 35.5	2140	0.043	0.17
		10 x 30.5	1600	0.065	0.25	12.5 x 40	2340	0.036	0.15
390		12.5 x 20	1570	0.060	0.19	16 x 25	2210	0.044	0.16
						18 x 20	1950	0.054	0.18
470		12.5 x 25	1990	0.043	0.14	16 x 30.5	2400	0.033	0.12
						18 x 25	2270	0.038	0.13
560		12.5 x 30.5	2410	0.035	0.13	16 x 35.5	2600	0.029	0.10
		16 x 20	2100	0.043	0.14	18 x 30.5	2470	0.031	0.11
680		12.5 x 35.5	2620	0.033	0.11	16 x 40	2860	0.027	0.090
						18 x 35.5	2860	0.027	0.084
820		12.5 x 40	2940	0.027	0.090	18 x 40	3510	0.026	0.076
		16 x 25	2730	0.032	0.096				
		18 x 20	2500	0.038	0.10				
1000		18 x 25	2700	0.031	0.084				
1200		16 x 30.5	2990	0.024	0.068				
		18 x 25	2800	0.031	0.084				
1500		16 x 35.5	3040	0.021	0.057				
		18 x 30.5	3300	0.025	0.068				
1800		16 x 40	3570	0.019	0.057				
		18 x 35.5	3570	0.020	0.054				
2200		18 x 40	3670	0.018	0.049				