

- Low Impedance, Low Water Contain.
- 低阻抗、低含水量

■ SPECIFICATIONS 規格表

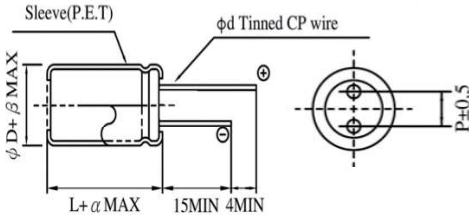
Item	Performance Characteristics 特性							
Operating Temperature Range 工作溫度範圍	-55 ~ +105°C							
Voltage Range 額定電壓範圍	6.3 ~ 50V							
Capacitance Tolerance 靜電容量容許差	±20% at 120Hz,20°C							
Leakage Current 漏電流	After 2 minutes application of rated voltage, leakage current is lower than 0.01CV or 3(μA), 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	
	Tanδ (MAX)	0.22	0.19	0.16	0.14	0.12	0.10	
(Frequency : 120Hz , Temperature : 20°C)								
Stability at Low Temperature 溫度特性	Rated voltage (V)		6.3	10	16	25	35	50
	Impedance Ratio 阻抗比	Z-25°C/Z+20°C	4	4	3	3	3	3
	ZT/Z 20 (MAX)	Z-40°C/Z+20°C	8	6	4	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 ±20% of initial Value 初期值的±20%以內			
	φD≤6.3	2000	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	3000						
	φD=10	4000	Leakage current 漏電流		Not exceeding of initial specified value 規格值以下			
φD≥12.5	5000							
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 Cap(μF)	50Hz	120Hz	300Hz	1KHz	100KHz ~
6.3~50	22~33	0.20	0.30	0.50	0.80	1.00
	47~330	0.55	0.65	0.75	0.85	1.00
	390~1000	0.70	0.75	0.80	0.90	1.00
	1200~18000	0.80	0.85	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 S.V Item Cap(μF)	6.3V 8V				10V 13V			
	Size D x L(mm)	Ripple	Impedance(QMAX)		Size D x L(mm)	Ripple	Impedance(QMAX)	
			20°C/100KHz	-10°C/100KHz			20°C/100KHz	-10°C/100KHz
100					5 x 11	180	0.696	1.700
150	5 x 11	180	0.696	1.700				
220					6.3 x 11	285	0.264	0.650
330	6.3 x 11	285	0.264	0.650				
470					8 x 11.5	510	0.156	0.480
680	8 x 11.5	510	0.156	0.480	8 x 15 10 x 12.5	600 690	0.104 0.096	0.400 0.295
820	10 x 12.5	690	0.096	0.295				
1000	8 x 15	600	0.104	0.400	8 x 20 10 x 16	840 970	0.083 0.072	0.300 0.205
1200	8 x 20 10 x 16	840 970	0.083 0.072	0.300 0.205	10 x 20	1120	0.055	0.160
1500	10 x 20	1120	0.055	0.160	10 x 25 12.5 x 15	1400 1160	0.050 0.059	0.130 0.192
1800	12.5 x 15	1160	0.059	0.192				
2200	10 x 25	1400	0.050	0.130	10 x 30.5 12.5 x 20	1580 1520	0.037 0.042	0.110 0.120
2700	10 x 30.5	1580	0.037	0.110				
3300	12.5 x 20	1520	0.042	0.120	12.5 x 25	1850	0.032	0.085
3900	12.5 x 25	1850	0.032	0.085	12.5 x 30.5 16 x 20	2140 2025	0.029 0.032	0.075 0.085
4700	12.5 x 30.5	2140	0.029	0.075	12.5 x 35.5	2250	0.028	0.072
5600	16 x 20	2025	0.032	0.085	16 x 25	2345	0.025	0.070
6800	16 x 25	2345	0.025	0.070	16 x 30.5	2760	0.020	0.060
8200	16 x 30.5	2760	0.020	0.060	16 x 35.5 18 x 30.5	3000 3336	0.018 0.018	0.053 0.048
10000	16 x 35.5	3000	0.018	0.053	18 x 35.5	3376	0.017	0.046
12000	18 x 30.5	3336	0.018	0.048				
15000	18 x 35.5	3376	0.017	0.046				
18000	18 x 40	3424	0.014	0.038				

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

W.V	16V				25V				
S.V	20V				32V				
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
47						5 x 11	180	0.696	1.700
56		5 x 11	180	0.696	1.700				
100						6.3 x 11	285	0.264	0.650
120		6.3 x 11	285	0.264	0.650				
220						8 x 11.5	510	0.156	0.480
330		8 x 11.5	510	0.156	0.480				
470		8 x 15	600	0.104	0.400	8 x 20	840	0.083	0.300
		10 x 12.5	690	0.096	0.295	10 x 16	970	0.072	0.205
680		8 x 20	840	0.083	0.300	10 x 20	1120	0.055	0.160
		10 x 16	970	0.072	0.205	12.5 x 15	1160	0.059	0.192
820						10 x 25	1400	0.050	0.130
1000		10 x 20	1120	0.055	0.160	10 x 30.5	1580	0.037	0.110
		12.5 x 15	1160	0.059	0.192	12.5 x 20	1520	0.042	0.120
1200		10 x 25	1400	0.050	0.130				
1500		10 x 30.5	1580	0.037	0.110	12.5 x 25	1850	0.032	0.085
		12.5 x 20	1520	0.042	0.120				
1800						12.5 x 30.5	2140	0.029	0.075
						16 x 20	2025	0.032	0.085
2200		12.5 x 25	1850	0.032	0.085	12.5 x 35.5	2250	0.028	0.072
2700		12.5 x 30.5	2140	0.029	0.075	16 x 25	2345	0.025	0.070
		16 x 20	2025	0.032	0.085				
3300		12.5 x 35.5	2250	0.028	0.072	16 x 30.5	2760	0.020	0.060
3900		16 x 20	2025	0.032	0.085	16 x 35.5	3000	0.018	0.053
		16 x 25	2345	0.025	0.070	18 x 30.5	3336	0.018	0.048
4700		16 x 30.5	2760	0.020	0.060	18 x 35.5	3376	0.017	0.046
5600		16 x 35.5	3000	0.018	0.053	18 x 40	3424	0.014	0.038
		18 x 30.5	3336	0.018	0.048				
8200		18 x 35.5	3376	0.017	0.046				
10000		18 x 40	3424	0.014	0.038				

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

W.V S.V	35V 44V				50V 63V			
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
22					5 x 11	135	0.910	3.100
33	5 x 11	180	0.696	1.700				
47					6.3 x 11	210	0.390	1.500
56	6.3 x 11	285	0.264	0.650	6.3 x 11	225	0.390	1.500
100					8 x 11.5	390	0.221	0.820
120					8 x 15	570	0.156	0.625
150	8 x 11.5	510	0.156	0.480	10 x 12.5	540	0.156	0.380
180					8 x 20	765	0.118	0.460
220	8 x 15	600	0.104	0.400	10 x 16	855	0.109	0.290
	10 x 12.5	690	0.096	0.295				
270	8 x 20	840	0.083	0.300	10 x 20	1060	0.078	0.215
					12.5 x 15	1070	0.079	0.210
330	10 x 16	970	0.072	0.205	10 x 25	1305	0.072	0.170
470	10 x 20	1120	0.055	0.160	10 x 30.5	1500	0.056	0.150
	12.5 x 15	1160	0.059	0.192	12.5 x 20	1210	0.059	0.150
560	10 x 25	1400	0.050	0.130	12.5 x 25	1660	0.044	0.105
680	10 x 30.5	1580	0.037	0.110	12.5 x 30.5	1935	0.039	0.095
	12.5 x 20	1520	0.042	0.120				
820					16 x 20	1590	0.044	0.120
1000	12.5 x 25	1850	0.032	0.085	16 x 25	1925	0.033	0.080
1200	12.5 x 30.5	2140	0.029	0.075	16 x 30.5	2190	0.029	0.070
	16 x 20	2025	0.032	0.085				
1500	12.5 x 35.5	2250	0.028	0.072	16 x 35.5	2365	0.025	0.060
1800	16 x 25	2345	0.025	0.070	18 x 30.5	2545	0.027	0.068
2200	16 x 30.5	2760	0.020	0.060	18 x 35.5	2550	0.022	0.060
2700	16 x 35.5	3000	0.018	0.053	18 x 40	2660	0.018	0.049
	18 x 30.5	3336	0.018	0.048				
3300	18 x 35.5	3376	0.017	0.046				
3900	18 x 40	3424	0.014	0.038				