

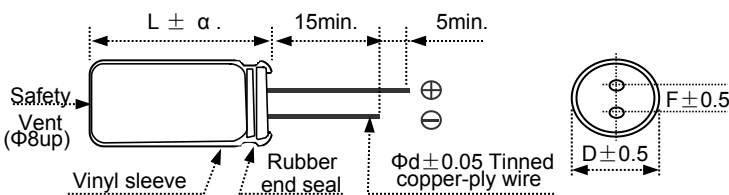
ES SeriesUpgrade
升级

- Load Life: 105°C 3000 hours.
- With high ripple current capability.
- This series has specification of vent operation in overvoltage situation.
- RoHS2.0 compliance.

◆ 规格表 Specifications

项目Items	特性参数Characteristics				
使用温度范围 Category Temperture Range	-25 ~ +105℃				
额定工作电压范围 Rated Voltage Range	400V~500V.DC				
静电容量允许偏差 Capacitance Tolerance	±20%(M) (at 20℃,120Hz)				
漏电流 Leakage Current	I≤0.015CV+10(μA) (施加额定工作电压2分钟后)				

◆ 尺寸图 (单位: mm) DIMENSIONS (Unit:mm)



ΦD	10	13	16	18
F	5.0	5.0	7.5	7.5
Φd	0.6	0.6	0.8	0.8

α	(L<20)1.5
	(L≥20)2.0

◆ 纹波电流修正系数 Rated Ripple Current Coefficient

● 频率系数 Frequency Coefficient

Frequency(Hz)	120	1K	10K	100K
Capacitance(μF)				
4.7	1.00	1.10	1.14	1.50
10~100	1.00	1.10	1.14	1.50

ES Series

◆ 标准品一览表 Standard Ratings

WV(V) Cap.(μF)	400(2G)								450(2D)								500(2H)			
4.7	8x12	0.05	10x13	0.06					8x12	0.040	10x16	0.055					10x16	0.041		
6.8	8x12	0.07	8x16	0.08	10x12	0.08			8x12	0.050	10x16	0.065								
10	8x12	0.08	8x16	0.09	10x17	0.11	13*20	0.14	8x18	0.058	10x20	0.072					10x20	0.066		
12											10x16	0.066								
15											13x20	0.125								
22	16x21	0.17	16x26	0.18							13x20	0.147					13x20	0.114		
27	16x26	0.21																		
33	16x26	0.22	16x30	0.23	18x21	0.23	18x26	0.24												
36	18x21	0.24																		
39	16x30	0.26	18x26	0.26																
47	16x30	0.31	16x35	0.33	16x21	0.28	16x26	0.31												
56	16x35	0.33	16x40	0.35	18x30	0.35	18x35	0.36												
68	16x40	0.38	18x35	0.41	18x40	0.42														
82	18x40	0.46	18x45	0.49					Maximum allowable ripple current at 105°C/120Hz(A.r.m.s) 在105°C/120Hz下的最大允许纹波电流（有效值，单位：毫安） Case size: ΦD×L(mm) 外壳尺寸：直径X长度（毫米）											
100	18x45	0.53																		
120																				
130																				
150																				

※铝电解电容器由于在纹波电流叠加时自我发热、温度上升而老化，中心温度每升温5℃寿命减少一半。要想保持长寿命请在使用过程中降低纹波电流。
 The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5℃ rise. When long life performance is required in actual use, the rms ripple current has to be reduced.