

ALUMINUM ELECTROLYTIC CAPACITORS

TF series

FEATURES 特性

- 105°C Miniaturized
105°C 尺寸小型化
- Only used for chargers
僅用於充電器

SPECIFICATIONS

Item 項目	Performance Characteristics 特性		
Operating Temperature Range 工作溫度範圍	-40~+105°C		
Rated Voltage Range 額定電壓範圍	400V ~ 420 W.V.		
Capacitance Range 靜電容量範圍	2.2~33uF		
Capacitance Tolerance 靜電容量誤差	±20% (20°C, 120Hz)		
Leakage Current 洩漏電流	Nominal Capacitance ≤ 10 μF I=0.02CV +25uA(After 2 minutes) 額定容量 ≤ 10 μF I=0.02CV +25uA(2 分鐘後) Nominal Capacitance > 10 μF I=0.02CV(After 2 minutes) 額定容量 > 10 μF I=0.02CV(2 分鐘後)) I=Leakage Current (μA), C=Nominal Capacitance (μF), V=Rated Voltage(V) I=洩漏電流 (μA), C=額定容量 (μF), V=額定電壓(V)		
Dissipation Factor (tan δ) 散逸因素 (損失角正切值)	Rated voltage (V) 額定電壓(V)	400	420
	Tan δ 損失角正切值	0.20	0.20
MAX (20°C, 120Hz)			
Low Temperature Stability Impedance Ratio(MAX) 低溫特性阻抗比率	Rated voltage (V) 額定電壓(V)	400	420
	Z(-25°C)/Z(+20°C)	8	8
	Z(-40°C)/Z(+20°C)	17	17
MAX (120Hz)			

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Load Life 負荷壽命	After 2000 hours' application of rated voltage at 105°C, capacitors meet the characteristics requirement listed as following. 在 105°C 下印加額定電壓 2000 小時後, 電容特性需滿足以下要求.	
	Leakage Current 洩漏電流	Not more than the specified value. 不超出規格值.
	Capacitance Change 容量變化率	within $\pm 20\%$ of the initial value 初始值 $\pm 20\%$ 以內
	Dissipation Factor 散逸因素	Not more than 200% of the specified value 不超出規格值的 2 倍
Shelf Life 放置壽命	After leaving capacitors under no load at 105°C for 1000 hours, the capacitors shall meet the following requirements 電容放置在 105°C 無印加電壓的情況下儲存 1000 小時後, 電容需符合以下要求。	
	Leakage Current 洩漏電流	Not more than the specified value. 不超出規格值.
	Capacitance Change 容量變化率	within $\pm 20\%$ of the initial value 初始值 $\pm 20\%$ 以內
	Dissipation Factor 散逸因素	Not more than 200% of the specified value 不超出規格值的 2 倍
Standard 參照標準	According to JIS C-5101 依據 JIS C-5101	

Frequency coefficient

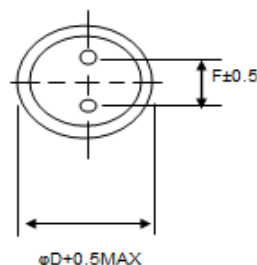
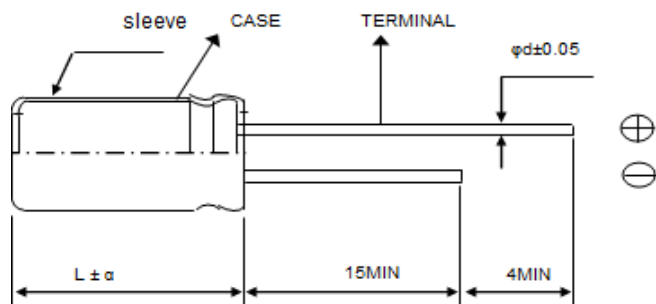
頻率系數

Frequency(Hz)	60(50)	120	1k	10k	$\geq 100k$
Coefficient	0.80	1.00	1.45	1.65	1.75

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DIMENSIONS 尺寸(mm)



φD	6.3	8	10	12/12.5/13
φd	0.5	0.6	0.6	0.6
F	2.5	3.5	5.0	5.0
α	$L \leq 19: \alpha = 1.5, \quad L \geq 20: \alpha = 2.0$			

STANDARD SIZES AND RIPPLE CURRENT

尺寸, 紋波電流及阻抗標準

SIZE $\varphi D \times L$ (mm) Ripple Current(mA 105°C 120Hz) r.m.s

W.V Cap(μF)		400(2G)		420(2H)	
		Size	Ripple Current	Size	Ripple Current
2.2	2R2	6.3x9	15	6.3x9	20
3.3	3R3	6.3x11	25	6.3x11	35
4.7	4R7	8x9	50	8x9	55
5.6	5R6	8x9	60	8x9	65
6.8	6R8	8x11.5	65	8x11.5	70
8.2	8R2	8x11.5 10x10	70 75	8x14 10x10	80 83
10	100	8x11.5 10x10	72 78	8x14 10x12.5	80 88
12	120	8x14 10x12.5	79 85	8x14 10x12.5	83 90
15	150	8x16 10x12.5	82 85	10x12.5	90
18	180	10x16	100	10x16	105
22	220	8x20 10x16	100 100	10x16	110
33	330	10x20	140	10x28 12.5x20	150 185