

H4 SERIES

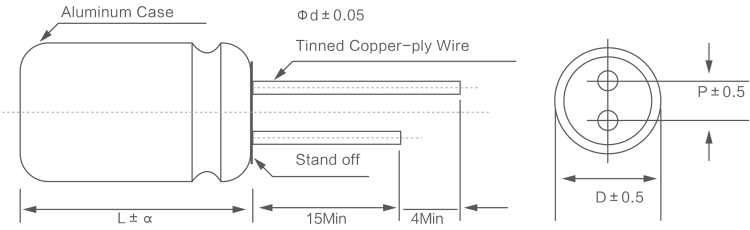
Low ESR, high ripple current,
high voltage, high temperature
Load life of 2000 hours at 125°C

規格表 Specifications



項目 Items	特性參數 Characteristics		
使用溫度範圍 Category Temperture Range	-55 ~ +125℃		
額定工作電壓範圍 Rated Voltage Range	35 ~ 100V		
靜電容量允許偏差 Capacitance tolerance	± 20%(M) (at 20℃,120Hz)		
漏電流 Leakage Current	施加額定工作電壓 2 分鐘後讀數, 小于或等于規格值 (at 20℃) I≤0.1CV 或 299 μ A/ 取大值) Less than or equal to the specified value. After 2 minutes application of rated Voltage at 20℃		
損耗角正切值 tan δ Dissipation Factor	Rated voltage (V) tan δ (Max.)	35~100 0.12	(at 20℃,120Hz)
溫度特性 Low Temperture Characteristics (Max.Impedance Ratio)	Z(-25℃)/Z(+20℃)	≦ 1.25	(100KHz)
	Z(-55℃)/Z(+20℃)	≦ 1.25	
	125℃施加額定工作電壓 2000 小時, 恢復到 20℃後, 產品性能應滿足以下要求 The specifications listed below shall be satisfied when the capacitors are restored to 20℃ after application of rated voltage for 2000 hours at 125℃.		
耐久性 Endurance	Appearance Capacitance change D.F.(tan δ) ESR Leakage current	No significant damage ≦ ± 20% of the initial value ≦ 150% of the specified value ≦ 150% of the specified value ≦ The specified value	
耐濕負荷特性 Damp Heat (Steady State)	在 60℃ 溫度, 濕度 90%~95%RH 的環境中, 施加額定電壓 1000 小時後, 恢復到 20℃後, 產品性能應滿足以下要求 The specifications listed below shall be satisfied when the capacitors are restored to 20℃after application of rated voltage for 1000 hours at 60℃,90% ~ 95% RH.		
	Appearance	No significant damage	
	Capacitance change	≦ ± 20% of the initial value	
	D.F.(tan δ)	≦ 150% of the specified value	
	ESR	≦ 150% of the specified value	
	Leakage current	≦ The specified value	
浪涌電壓特性 (Surge Voltage)	浪涌電壓 = 額定電壓 × 1.15(V) Surge Voltage=Rated voltage × 1.15(V) 在 125℃環境中, 按充電 30 秒; 放電 5 分 30 秒, 連續施加浪涌電壓 1000 次 (Rc=1kΩ), 待恢復後測試, 應滿足以下要求 The capacitors shall be subjected to 1000 cycles each consisting of charge with the surge voltages specified at 105℃ for 30 seconds through a protective resistor (Rc=1kΩ) and discharge for 5 minutes 30 seconds		
	Appearance Capacitance change D.F.(tan δ) ESR Leakage current	No significant damage ≦ ± 20% of the initial value ≦ 150% of the specified value ≦ 150% of the specified value ≦ The specified value	

外形圖Dimensions (mm)



ΦD	5	6.3	8	10
P	2.0	2.5	3.5	5.0
Φd	0.5	0.6	0.6	0.6

α	(L < 16)1.0
	(16 ≤ L < 22)1.5
	(L ≥ 22)2.0

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紋波電流補正係數 Rated Ripple Current Coefficient

頻率Frequency(Hz)	$120\text{Hz} \leq f < 1\text{kHz}$	$1\text{kHz} \leq f < 10\text{kHz}$	$10\text{kHz} \leq f < 100\text{kHz}$	$100\text{kHz} \leq f < 500\text{kHz}$
係數Coefficient	0.05	0.30	0.70	1.00

尺寸與個技術參數一覽表Standard Ratings

Rated voltage (V)	Rated capacitance (μF)	Case size $\Phi D \times L(\text{mm})$	ESR($\text{m}\Omega$) at 20°C , 100 KHz	Leakage Current (μA)	Rated ripple current ($\text{mA}_{\text{rms}}/105^\circ\text{C}/100\text{kHz}$)
35	10	5*8	120	299	630
	22	6.3*8	100	299	800
	33	6.3*8	100	299	630
	100	6.3*8	60	350	1040
	100	8*9	40	350	1150
	150	8*12	35	525	1440
	220	10*12.5	30	770	1700
	330	10*12.5	30	1155	1700
50	10	5*8	120	299	400
	22	6.3*8	100	299	500
	47	6.3*12	60	299	750
	47	8*12	40	299	860
	82	8*12	40	410	860
	100	10*12.5	35	500	1210
	220	10*12.5	35	1100	1210
63	10	6.3*8	100	299	400
	22	6.3*8	100	299	400
	47	8*9	55	299	630
	47	8*12	40	299	750
	100	10*12.5	38	630	1040
80	10	8*9	80	299	630
	22	8*12	60	299	750
	33	10*12.5	45	299	970
	47	10*12.5	45	299	1040
	56	10*12.5	45	448	1040
100	10	8*9	90	299	550
	15	8*12	70	299	680
	22	10*12.5	60	299	900
	33	10*12.5	60	330	900