

E4 Series

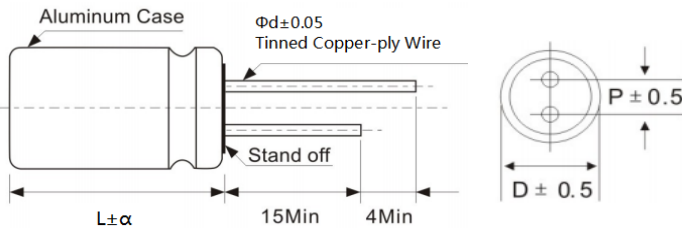
- Low ESR, high ripple current, high temperature
- Load life of 2000 hours at 125°C
- RoHS Compliant



规格表 Specifications

项目 Items	特性参数 Characteristics											
使用温度范围 Category Temperature Range	-55 ~ +125°C											
额定工作电压范围 Rated Voltage Range	2.5 ~ 25V											
静电容量允许偏差 Capacitance tolerance	±20%(M) (at 20°C, 120Hz)											
漏电流 Leakage Current	施加额定工作电压2分钟后读数, 小于或等于规格值 (at 20°C) I≤0.2CV 或 500μA (取大值) Less than or equal to the specified value. After 2 minutes application of rated Voltage at 20°C											
损耗角正切值 tanδ Dissipation Factor	Rated voltage (V)	2.5	4	6.3	6.8	7.5	10	12	16	20	25	(at 20°C, 120Hz)
	tanδ (Max.)	0.08						0.12				
温度特性 Low Temperature Characteristics (Max. Impedance Ratio)	Z(-25°C)/Z(+20°C)	≤ 1.25			(100KHz)							
	Z(-55°C)/Z(+20°C)	≤ 1.25										
耐久性 Endurance	125°C 施加额定工作电压2000小时, 恢复到20°C后, 产品性能应满足以下要求 The specifications listed below shall be satisfied when the capacitors are restored to 20°C after application of rated voltage for 2000 hours at 125°C.											
	Appearance	No significant damage										
	Capacitance change	≤ ±20% of the initial value										
	D.F.(tanδ)	≤ 150% of the specified value										
	ESR	≤ 150% of the specified value										
耐湿负荷特性 Damp Heat (Steady State)	在60°C 温度, 湿度90%~95%RH的环境中, 施加额定电压1000小时后, 恢复到20°C后, 产品性能应满足以下要求 The specifications listed below shall be satisfied when the capacitors are restored to 20°C after application of rated voltage for 1000 hours at 60°C, 90%~ 95% RH.											
	Appearance	No significant damage										
	Capacitance change	≤ ±20% of the initial value										
	D.F.(tanδ)	≤ 150% of the specified value										
	ESR	≤ 150% of the specified value										
浪涌电压特性 (Surge Voltage)	浪涌电压=额定电压× 1.15(V) Surge Voltage=Rated voltage × 1.15(V) 在125°C环境中, 按充电30秒; 放电5分30秒, 连续施加浪涌电压1000次(Rc=1kΩ), 待恢复后测试, 应满足以下要求 The capacitors shall be subjected to 1000 cycles each consisting of charge with the surge voltages specified at 125°C for 30 seconds through a protective resistor (Rc=1kΩ) and discharge for 5 minutes 30 seconds											
	Appearance	No significant damage										
	Capacitance change	≤ ±20% of the initial value										
	D.F.(tanδ)	≤ 150% of the specified value										
	ESR	≤ 150% of the specified value										
	Leakage current	≤ The specified value										

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

频率Frequency(Hz)	120Hz \leq f < 1kHz	1kHz \leq f < 10kHz	10kHz \leq f < 100kHz	100kHz \leq f < 500kHz
系数 Coefficient	0.05	0.30	0.70	1.00

◆ 尺寸与个技术参数一览表Standard Ratings

Rated voltage (V)	Rated capacitance (uF)	Case size Φ D×L(mm)	ESR(m Ω) at 20°C, 100 KHz	Leakage Current (μ A)	Rated ripple current (mA _{rms} /125°C/100kHz)
2.5	560	6.3*8	10	500	1700
	680	6.3*8	10	500	1700
	820	8*9	10	500	1929
	1000	8*9	10	500	1929
	1000	8*12	10	500	1929
	1500	8*12	10	750	1929
	2200	10*12.5	9	1100	2100
4	560	6.3*8	12	500	1700
	680	6.3*8	12	544	1700
	680	8*9	10	544	1929
	820	8*9	10	656	1929
	1000	8*9	10	800	1929
	1000	8*12	10	800	1929
	1500	10*12.5	9	1200	2100
6.3	220	5*8	18	500	1500
	220	6.3*8	15	500	1700
	330	6.3*8	15	500	1700
	470	6.3*8	15	592	1700
	560	6.3*8	15	706	1700
	680	8*9	12	857	1929
	820	8*9	12	1033	1929
	1000	8*9	12	1260	1929
	1000	8*12	12	1260	1929
	1000	10*12.5	12	1260	2100
	1500	8*12	12	1890	1929
	1500	10*12.5	12	1890	2100
2200	10*12.5	12	2772	2100	
7.5	220	6.3*8	16	500	1700
	330	6.3*8	16	500	1700
	470	6.3*8	16	705	1700
	560	6.3*8	16	840	1700
	820	8*9	12	1230	1929
	820	8*12	12	1230	1929

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◆ 尺寸与个技术参数一览表Standard Ratings

Rated voltage (V)	Rated capacitance (uF)	Case size ΦD×L(mm)	ESR(mΩ) at 20°C,100 KHz	Leakage Current (μA)	Rated ripple current (mArms/125°C/100kHz)
7.5	1000	8*12	12	1500	1929
	1000	10*12.5	12	1500	2100
	1500	10*12.5	12	2250	2100
10	220	6.3*8	16	500	1700
	330	6.3*8	16	660	1700
	470	8*9	14	940	1929
	560	8*9	14	1120	1929
	560	8*12	14	1120	1929
	680	8*12	14	1360	1929
	820	8*12	14	1640	1929
	820	10*12.5	14	1640	2100
	1000	10*12.5	14	2000	2100
16	100	6.3*8	20	500	920
	220	6.3*8	18	704	950
	220	8*9	16	704	1850
	330	6.3*9	18	1056	1740
	330	8*9	16	1056	1850
	470	6.3*12	16	1504	1860
	470	8*12	15	1504	1920
	680	6.3*12	18	2176	1860
	820	6.3*14	18	2624	1920
	1000	8*12	15	3200	1920
25	100	5*9	50	500	750
	100	6.3*8	40	500	1100
	150	5*11	40	750	1270
	220	6.3*12	35	1100	1310
	220	8*9	35	1100	1470
	220	8*12	25	1100	1680
	330	6.3*12	35	1650	1470
	330	8*9	35	1650	1470
	330	8*12	25	1650	1680
	470	6.3*14	25	2350	1680
	470	8*12	25	2350	1680
	560	8*12	25	2800	1680
	680	10*12.5	20	3400	1860
	820	10*12.5	20	4100	1860
	1000	10*12.5	20	5000	1860

Packaging Quantity 包裝數量

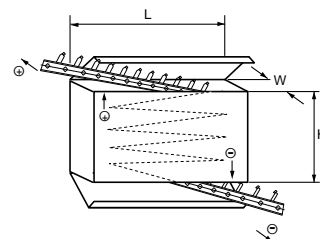
- For Chip Type Conductive Polymer Aluminum Solid Electrolytic Capacitors & Chip Type Conductive Polymer Hybrid Aluminum Electrolytic Capacitors
適用於貼片式導電性高分子固態鋁電解電容器及貼片式導電性高分子混合型鋁電解電容器

Case Size ∅D × L (mm) 尺寸	Quantity/Reel (pcs) 數量/卷 (個)	Reels/Box 卷盤/箱	Quantity/Carton (pcs) 數量/外箱 (個)
4 × 5.5	2,000*	12	24,000
5 × 5.5~8	1,000*	12	12,000
5 × 9	750*	12	9,000
6.3 × 5.5~8	1,000*	10	10,000
6.3 × 9~9.5	750*	10	7,500
8 × 6.7~7.7	1,000*	7	7,000
8 × 8~12	500*	7	3,500
10 × 8~13	450*	8	3,600

■ Taping Type (Ammo pack) 編帶品 (折疊式包裝)

- For Conductive Polymer Aluminum Solid Electrolytic Capacitors & Conductive Polymer Hybrid Aluminum Electrolytic Capacitors
適用於導電性高分子固態鋁電解電容器及導電性高分子混合型鋁電解電容器

Type 類型	Diameter (mm) 直徑	In-box Size 內盒尺寸			Carton Box Size 外箱尺寸			Quantity/In-box (pcs) 數量/內盒 (個)	Quantity/Carton (pcs) 數量/外箱 (個)
		L (mm)	H (mm)	W (mm)	L (mm)	H (mm)	W (mm)		
Type 類型	∅5	337	234	50	490	350	280	2,000*	20,000
	∅6.3	340	300	53	360	325	300	2,000*	10,000
	∅8	320	240	45	520	340	225	1,000*	10,000
	∅10	325	195	45	410	340	255	500*	4,000



■ Bulk Type 散裝品

- For Conductive Polymer Aluminum Solid Electrolytic Capacitors & Conductive Polymer Hybrid Aluminum Electrolytic Capacitors
適用於導電性高分子固態鋁電解電容器及導電性高分子混合型鋁電解電容器

Type 類型	Case Size ∅D × L (mm) 尺寸	Vinyl Bag Quantity 膠袋數量		Small Box Quantity 內箱數量				Carton Box Quantity 外箱數量			Small Box Size 內箱尺寸			Carton Box Size 外箱尺寸		
		pcs/Bag 個/膠袋		Vinyl Bag/Small Box 膠袋/內箱		pcs/Small Box 個/內箱		Small Box/ Carton Box 內箱/外箱	pcs/Carton Box 個/外箱		L (mm)	H (mm)	W (mm)	L (mm)	H (mm)	W (mm)
		Long Lead 長腳	Lead Cutting/Forming 剪腳/成型	Long Lead 長腳	Lead Cutting/Forming 剪腳/成型	Long Lead 長腳	Lead Cutting/Forming 剪腳/成型		Long Lead 長腳	Lead Cutting/Forming 剪腳/成型						
Radial Lead Type 直插式	5 × 7~12	1,000*	1,000*	8	16	8,000	16,000	4	32,000	64,000	310	140	200	420	220	295
	6.3 × 6~9	1,000*	1,000*	8	8	8,000	8,000		32,000	32,000						
	6.3 × 10.5~12	500*	1,000*	8	8	4,000	8,000		16,000	32,000						
	8 × 7~9	500*	1,000*	8	8	4,000	8,000		16,000	32,000						
	8 × 11~16	500*	500*	8	8	4,000	4,000		16,000	16,000						
	10 × 8~13	250*	500*	8	8	2,000	4,000		8,000	16,000						
	10 × 16~21	200*	400*	8	8	1,600	3,200		6,400	12,800						

* Minimum package quantity *最小包裝數量

- There are some differences between actual package quantity and above list. Please confirm before you order.
- Please order by minimum package quantity.
- 以上包裝標準可能會與實際的包裝數量有所不同，請在訂購前確認。
- 請以最小包裝數量訂購。

Note: All design and specifications are for reference only and is subject to change without prior notice. If any doubt about safety for your application, please contact us immediately for technical assistance before purchase.

注: 以上所提供的設計及特性參數僅供參考，任何修改不作預先通知。如果在使用上有疑問，請在採購前與我們聯繫，以便提供技術上的協助。