

E1 Series

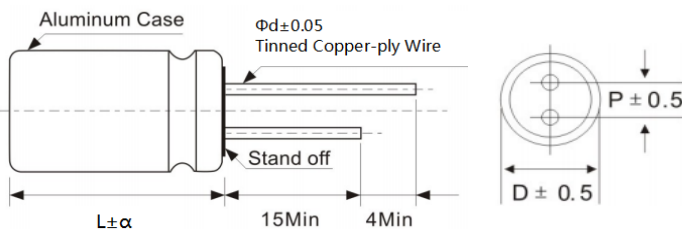
- Super low ESR, high ripple current
- Load life of 2000 hours at 105°C
- RoHS Compliant



◆ 规格表 Specifications

项目 Items	特性参数 Characteristics											
使用温度范围 Category Temperature Range	-55 ~ +105°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	105°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 105°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105°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 105°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} /105°C/100kHz)
2.5	560	5*8	12	500	4100
	560	6.3*8	8	500	5100
	680	6.3*8	8	500	5100
	680	8*9	8	500	5900
	820	6.3*8	8	500	5200
	820	8*9	8	500	5900
	1000	8*9	8	500	5900
	1000	8*12	8	500	6100
	1200	8*9	8	600	5900
	1200	8*12	8	600	6100
	1500	8*12	8	750	6100
4	560	6.3*8	8	500	5100
	560	8*9	8	500	5900
	680	6.3*8	8	544	5100
	680	8*9	8	544	5900
	820	6.3*9	8	656	5200
	820	8*9	8	656	5900
	1000	6.3*12	8	800	5500
	1000	8*9	8	800	5900
	1200	6.3*12	8	960	5500
	1200	8*9	8	960	5900
6.3	220	5*8	12	500	3900
	270	5*7	12	500	3700
	270	5*8	12	500	3900
	330	5*7	12	500	3700
	330	5*8	12	500	4100
	330	6.3*8	10	500	4450
	390	5*9	12	500	4510
	470	5*9	12	592	4510
	470	6.3*8	8	592	4900
	560	5*11	10	706	4100
	560	6.3*8	8	706	5100
	680	5*11	10	857	4100
	680	6.3*8	8	857	5100

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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/105°C/100kHz)
6.3	820	6.3*8	8	1033	5200
	820	6.3*9	8	1033	5200
	820	8*9	8	1033	5900
	1000	6.3*12	8	1260	5500
	1000	8*9	8	1260	5900
	1000	8*12	8	1260	6100
	1200	6.3*12	8	1512	5500
	1200	8*12	8	1512	6100
	1500	8*12	8	1890	6100
	1500	10*12.5	8	1890	6200
	2200	10*12.5	8	2772	6200
7.5	270	5*8	12	500	3630
	330	6.3*8	10	500	4100
	390	6.3*8	10	585	4100
	470	6.3*8	10	705	4100
	560	6.3*8	10	840	4500
	680	6.3*12	10	1020	4500
	680	8*9	8	1020	4800
	820	6.3*12	10	1230	4500
	820	8*9	8	1230	4800
	1000	8*9	8	1500	4800
	1000	8*12	8	1500	5100
	1200	8*12	8	1800	5100
	1200	10*12.5	8	1800	5500
	1500	10*12.5	8	2250	5500
10	220	5*8	15	500	3100
	220	6.3*8	12	500	3500
	270	6.3*8	12	540	3500
	330	6.3*8	12	660	3750
	330	8*9	10	660	3800
	390	6.3*8	12	780	3750
	390	6.3*12	12	780	3900
	470	6.3*8	12	940	3850
	470	8*9	10	940	3950
	560	6.3*12	12	1120	3900
	560	8*9	10	1120	3950

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◆ 尺寸与技术参数一览表 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 (mA _{rms} /105°C/100kHz)
10	680	6.3*12	12	1360	4100
	680	8*9	10	1360	4200
	820	8*9	10	1640	4200
	820	8*12	8	1640	4500
	1000	8*12	8	2000	4500
	1000	10*12.5	8	2000	5200
	1200	10*12.5	8	2400	5200
	1500	10*12.5	8	3000	5200
12	220	5*9	12	528	2690
	220	6.3*8	12	528	2900
	270	6.3*8	12	648	2900
	330	6.3*8	12	792	2900
	390	6.3*8	12	936	2900
	470	6.3*12	10	1128	3500
	470	8*9	10	1128	3800
	560	6.3*12	10	1344	3500
	560	8*9	10	1344	3800
	680	8*9	10	1632	3800
	820	8*12	10	1968	4100
	1000	8*12	10	2400	4100
	1000	10*12.5	8	2400	4800
	1200	10*12.5	8	2880	4800
	1500	10*12.5	8	3600	4800
16	100	5*8	15	500	2500
	150	5*8	15	500	2500
	150	6.3*8	12	500	2900
	180	5*9	15	576	2900
	220	5*9	15	704	2900
	220	6.3*8	12	704	3500
	220	8*9	11	704	3900
	270	5*11	12	864	3500
	270	6.3*8	12	864	3500
	270	8*9	11	864	3900
	330	6.3*8	12	1056	3500
	330	6.3*12	12	1056	3900
	470	6.3*12	12	1504	3900
	470	8*9	11	1504	4100

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◆ 尺寸与技术参数一览表 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 (mA _{rms} /105°C/100kHz)
16	470	8*12	10	1504	4300
	560	6.3*12	12	1792	3900
	680	6.3*12	12	2176	3900
	680	6.3*14	10	2176	4300
	680	8*12	10	2176	4300
	820	6.3*14	10	2624	4300
	820	8*12	10	2624	4430
	1000	8*12	10	3200	4430
	1000	10*12.5	8	3200	5200
	1500	10*12.5	8	4800	5200
25	47	5*8	20	500	1300
	68	5*8	20	500	1300
	100	5*8	20	500	1300
	100	5*9	20	500	1350
	100	6.3*8	15	500	2500
	150	5*11	15	500	2350
	150	6.3*7	15	750	2100
	220	5*11	15	750	2350
	220	6.3*7	15	1100	2100
	220	6.3*8	15	1100	2500
	220	6.3*12	15	1100	3100
	330	6.3*12	15	1650	3900
	330	8*9	12	1650	3900
	330	8*12	12	1650	4450
	470	6.3*14	12	2350	4320
	470	8*12	12	2350	4450
	470	10*12.5	10	2350	5050
	560	6.3*14	12	2800	4320
	560	8*12	12	2800	4450
	680	6.3*16	12	3400	4450
	680	8*12	12	3400	4450
	820	8*14	12	4100	4800
	820	10*12.5	10	4100	5050
	1000	8*14	12	5000	4800
	1000	10*12.5	10	5000	5050
1200	10*12.5	10	6000	5050	
1500	10*15	10	7500	5200	

Packaging Quantity 包裝數量

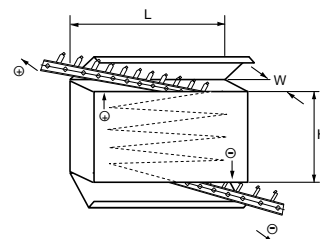
- For Chip Type Conductive Polymer Aluminum Solid Electrolytic Capacitors & Chip Type Conductive Polymer Hybrid Aluminum Electrolytic Capacitors
適用於貼片式導電性高分子固態鋁電解電容器及貼片式導電性高分子混合型鋁電解電容器

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	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。