E2 SERIES

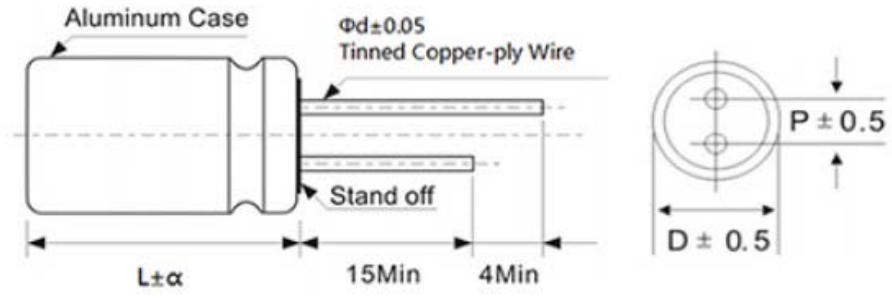
Features

- LOW ESR, high ripple current
- Load life of 2000 hours at 105℃
- RoHS Compliant

Specifications

Items		Characteristics										
Category Temperture Range	-55~+105°C											
Rated Voltage Range	2.5~25V											
Capacitance tolerance	±20%(M) (at 20℃,120Hz)											
Leakage Current	Less than or equal to the specified value, After 2 minutes application of rated Voltage at 20℃											
tanδ Dissipation Factor	Rated voltage (V)	2.5	4	6.3	6.8	7.5	10	12	16	20	25	(at 20C,120Hz)
	tanδ(Max.)	0.08					0.12					
Low Temperture Characteristics (Max.Impedance Ratio)	Z(-25℃)/Z(+20℃)	≦1.25					(100KHz)					
	Z(-55℃)Z(+20℃)	≦1.25										
Endurence	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										
	Leakage current	≦The specified value										
Damp Heat(Steady State)	The specifications listed below shall be satisfied when the capacitors are restored to 20 'Cafter application of ratedvoltage for 1000 hours at 60C,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										
	Leakage current	≦The specified value										
Surge Voltage	The capacitors shall be subjected to 1000 cycles each consisting of charge with the surge voltages specified at 105'Cfor 30 seconds through a protective resistor (Rc=1k) 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										

Case size table



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

ΦD	5	6	8	10	12	13	16/18	21/22
F	2.0	2.5	3.5	5.0			7.5	10

How to order

E2	4	102	M	100	B	8X12
Series code	**Number of characters for capacitance (47uF=2, 470uF=3 4700uF=4)**	**Capaictance** (47uF=470 3300uF=332 33000uF=333)	**Caoacutance tolerance** (M+-20% K +-10%)	**Voltage code** (6.3V=6R3, 10V= 100, 63V=630, 100V=101)	**Package** (B: Bulk pack A : Ammo Pack)	**Size code**

Environmental

RoHS declaration (6/6) complies with the requirements of Directive 2002/95/EC, which stipulates the use of 100% Sn solder, gold plated or non-magnetic 100% Sn solder

Application

Computer	PC Power	Measuring instruments	Telecom Infrastucture

Rated Ripple Current Coefficient

Frequency(Hz)	120Hz≦ f < 1kHz	1kHz≦ f< 10kHz	10kHz≦ f <100kHz	100kHz≦ f < 500kHz
Coefficient	0.05	0.30	0.70	1.00

Standard Ratings

Rated voltage(V)	Rated capacitance (uF)	Case size ΦDxL(mm)	ESR(mΩ) at 20C,100 KHz	Leakage Current (uA)	Rated ripple current(mArms/105C/100KHz)
2.5	560	5*8	18	500	2900
	560	6.3*8	15	500	3500
	680	6.3*8	15	500	3500
	680	8*9	12	500	5200
	820	6.3*8	15	500	3500
	820	8*9	12	500	5200
	1000	8*9	12	500	5500
	1000	8*12	12	500	5500
	1200	8*9	12	600	5500
	1200	8*12	12	600	5500
	1500	8*12	12	750	5500
4	560	6.3*8	15	500	3100
	560	8*9	12	500	5100
	680	6.3*8	15	544	3500
	680	8*9	12	544	5100
	820	6.3*9	15	656	4100
	820	8*9	12	656	5100
	1000	6.3*12	15	800	4100
	1000	8*9	12	800	5100
	1200	6.3*12	15	960	4500
	1200	8*9	12	960	5100
6.3	220	5*8	18	500	2690
	270	5*7	20	500	2450
	270	5*8	18	500	2690
	330	5*7	20	500	2450
	330	5*8	18	500	2690
	330	6.3*8	15	500	3100
	390	5*9	16	500	3100
	470	5*9	16	592	3300
	470	6.3*8	15	592	4100
	500	5.5*7	16	630	3500
	560	5.5*8	16	706	3500

Standard Ratings

Rated voltage(V)	Rated capacitance (uF)	Case size ΦDxL(mm)	ESR(mΩ) at 20C,100 KHz	Leakage Current (uA)	Rated ripple current(mArms/105C/100KHz)
6.3	560	5*11	16	706	3500
	560	6.3*8	15	706	4100
	680	5*11	16	857	3500
	680	6.3*8	15	857	4100
	820	5.5*11	15	1033	4100
	820	6.3*8	15	1033	4100
	820	6.3*9	15	1033	4500
	820	8*9	12	1033	5100
	1000	6.3*12	14	1260	4800
	1000	8*9	12	1260	5100
	1000	8*12	12	1260	5500
	1200	6.3*12	14	1512	4800
	1500	6.3*14	14	1890	5100
	1200	8*12	12	1512	5500
	1500	8*12	12	1890	5500
	1500	10*12.5	12	1890	5900
	2200	10*12.5	12	2772	5900
7.5	270	5*8	18	500	2690
	330	6.3*8	16	500	3100
	390	6.3*8	16	585	3500
	470	6.3*8	16	705	3500
	560	6.3*8	16	840	3500
	680	6.3*12	16	1020	3800
	680	8*9	12	1020	4800
	820	6.3*12	16	1230	3800
	820	8*9	12	1230	4800
	1000	8*9	12	1500	4800
	1000	8*12	12	1500	5100
	1200	8*12	12	1800	5100
	1200	10*12.5	12	1800	5500
	1500	10*12.5	12	2250	5500
10	220	5*8	20	500	2200
	220	6.3*8	16	500	2900
	270	6.3*8	16	540	2900
	330	6.3*8	16	660	3100
	330	8*9	14	660	4800
	390	6.3*8	16	780	3100
	390	6.3*12	16	780	3500

Standard Ratings

Rated voltage(V)	Rated capacitance (uF)	Case size ΦDxL(mm)	ESR(mΩ) at 20C,100 KHz	Leakage Current (uA)	Rated ripple current(mArms/105C/100KHz)
10	470	6.3*8	16	940	3100
	470	8*9	14	940	4800
	560	6.3*12	16	1120	3500
	560	8*9	14	1120	4800
	680	6.3*12	16	1360	3500
	680	8*9	14	1360	4800
	820	8*9	14	1640	4800
	820	8*12	14	1640	5100
	1000	8*12	14	2000	5100
	1000	10*12.5	14	2000	5500
	1200	10*12.5	14	2400	5500
	1500	10*12.5	14	3000	5500
	2200	10*12.5	14	4400	5500
12	220	5*9	20	528	2690
	220	6.3*8	18	528	3160
	330	5*9	20	648	2690
	330	6.3*8	18	792	3200
	390	6.3*8	18	936	3200
	470	6.3*12	18	1128	3500
	470	8*9	15	1128	4100
	560	6.3*12	18	1344	3500
	560	8*9	15	1344	4100
	680	8*9	15	1632	4100
	820	8*12	15	1968	4500
	1000	8*12	15	2400	4500
	1000	10*12.5	12	2400	5200
	1200	10*12.5	12	2880	5200
	1500	10*12.5	12	3600	5200
16	100	5*8	35	500	2100
	150	5*8	25	500	2100
	150	6.3*8	20	500	2690
	180	5*9	22	576	2690
	220	5*9	22	704	2690
	220	6.3*8	18	704	3100
	220	8*9	15	704	3500
	270	5*9	22	864	2900
	270	6.3*8	18	864	3100
	270	8*9	15	864	3500

Standard Ratings

Rated voltage(V)	Rated capacitance (uF)	Case size ΦDxL(mm)	ESR(mΩ) at 20C,100 KHz	Leakage Current (uA)	Rated ripple current(mArms/105C/100KHz)
16	330	5.5*10	20	1056	3100
	330	6.3*8	18	1056	3100
	330	6.3*12	18	1056	3700
	470	5.5*10	18	1504	3700
	470	6.3*12	18	1504	3700
	470	8*9	15	1504	3700
	470	8*12	15	1504	4100
	560	6.3*12	18	1792	3700
	680	5.5*14	18	2176	3700
	680	6.3*12	18	2176	3700
	680	6.3*14	18	2176	4100
	680	8*12	15	2176	4100
	820	6.3*14	18	2176	4100
	1000	6.3*14	18	3200	4100
	820	8*12	15	2624	4200
	1000	8*12	15	3200	4200
	1200	8*14	15	3840	4500
	1500	8*14	15	4800	4900
	1000	10*12.5	14	3200	4900
	1500	10*12.5	14	4800	4900
	2200	10*12.5	14	7040	4900
25	47	5*8	50	500	1050
	68	5*8	50	500	1050
	100	5*8	40	500	1100
	100	5*9	40	500	1300
	100	6.3*8	40	500	2200
	150	5*11	40	750	1900
	150	6.3*7	40	750	1750
	220	5*11	40	1100	1900
	220	6.3*7	40	1100	1750
	220	5.5*8	40	1100	1900
	220	6.3*8	40	1100	2200
	220	6.3*12	35	1100	2900
	330	5.5*11	40	1650	2500
	330	6.3*9	35	1650	2900
	330	6.3*12	35	1650	3100
	330	8*9	30	1650	3100
	330	8*12	25	1650	3800

Standard Ratings

Rated voltage(V)	Rated capacitance (uF)	Case size ΦDxL(mm)	ESR(mΩ) at 20C,100 KHz	Leakage Current (uA)	Rated ripple current(mArms/105C/100KHz)
25	470	6.3*12	35	2350	3500
	470	6.3*14	35	2350	3800
	470	8*12	25	2350	3800
	470	10*12.5	20	2350	4800
	560	6.3*14	35	2800	3900
	560	8*12	25	2800	3900
	680	6.3*14	35	3400	3900
	680	6.3*16	25	3400	4200
	680	8*12	25	3400	4200
	820	6.3*16	25	4100	4200
	820	8*12	25	4100	4200
	820	8*14	25	4100	4500
	820	10*12.5	20	4100	4800
	1000	8*14	25	5000	4500