EA series

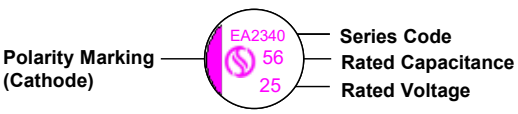
- Standard radial lead type.
- Rated voltage :2.5~25V.
- Endurance:2,000hours at 105℃
- Applications:motherboards, servers,VGA ,etc.
- ROHS compliant
- Halogen Free compliant

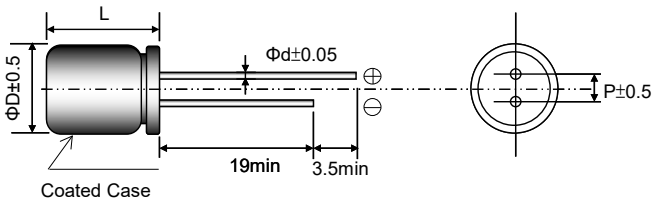
SPECIFICATIONS

Items	Conditions	Characteristics	
Category Temperature Range	—	-55 to +105℃	
Rated Voltage Range	—	2.5 ~ 25V	
Capacitance Tolerance	at 20℃,120HZ	±20%(M)	
Surge Voltage	at 105℃	Rated voltage ×1.15V	
Leakage Current	at 20℃after 2 minutes	I ≦ 0.2CV or 300(μA) Whichever is greater measured,after 2minutes application of rated working voltage at +20℃. Please see the attached characteristics list	
Dissipation Factor (tan δ)	at 20℃,120Hz	Please see the attached characteristics list	
Low Temperature Characteristics (Max. Impedance Ratio)	at -55℃,100kHz	Z(-55℃) / Z(+20℃)	≦ 1.25
	at -25℃,100kHz	Z(-25℃)/Z(+20℃)	≦ 1.15
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage is applied for 2,000 hours at 105℃.	Appearance	No significant damage.
		Capacitance change	≦ ±20% of the initial value.
		DF (tan δ)	≦ 150% of the initial specified value.
		ESR	≦ 150% of the initial specified value.
		Leakage current	≦ The initial specified value.
Damp Heag (Steady State)	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjecting them to store 60℃, 90 to 95% RH for 1,000 hours, without DC applied.	Appearance	No significant damage.
		Capacitance change	≦ ±20% of the initial value.
		DF (tan δ)	≦ 150% of the initial specified value.
		ESR	≦ 150% of the initial specified value.
		Leakage current	≦ The initial specified value.
Surge Voltage	The capacitors shall be subjected to 1,000 cycles each consisting of charge with the surge voltages specified at 105℃ for 30 seconds through aprotective resistor (R = 1 kΩ) and discharge for 5 minutes 30 seconds.	Appearance	No significant damage.
		Capacitance change	≦ ±20% of the initial value.
		DF (tan δ)	≦ 150% of the initial specified value.
		ESR	≦ 150% of the initial specified value.
		Leakage current	≦ The initial specified value.

※ Note : If any doubt arises, measure the leakage current after following voltage treatment.
Voltage treatment : DC rated voltage are applied to the capacitors for 120 minutes at 105℃.

MARKING AND DIMENSIONS





(Unit:mm)

Size	5x6	5x8	6.3×6	6.3x8	6.3×10.5	8x8	8×11.5	10x11.5	10x14
ΦD	5	5	6.3	6.3	6.3	8	8	10	10
L	L+1.0 max	L+1.0 max	L+1.0 max	L+1.5 max	L+1.5 max	L+1.5 max	L+1.5 max	L+1.5 max	L+1.0 max
Φd	0.45	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6
P	2.0	2.0	2.5	2.5	2.5	3.5	3.5	5.0	5.0

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STANDARD RATINGS

Rated Voltage (S.V.)	Cap (μF)	Size Code DxL	Leakage current (μA) max.	ESR (mΩ) max. 100k to 300kHz / 20℃	Rated Ripple Current (mA rms) 100kHz / 105℃	D.F. (tanδ) max. 120Hz / 20℃
2.5 (2.9)	390	6.3×6	300	35	2100	0.12
	560	6.3×8	300	12	3500	0.12
	560	8×8	300	12	4320	0.12
	820	6.3×8	410	12	5200	0.12
	1200	8×8	600	12	5200	0.12
	1500	8x11.5	750	10	5200	0.12
	2700	10x11.5	1350	10	5230	0.12
4 (4.6)	270	6.3×6	300	35	2000	0.12
	560	6.3×8	448	15	3500	0.12
	680	6.3×8	544	15	3500	0.12
	820	8×8	656	13	5100	0.12
	1000	8x11.5	800	12	5100	0.12
	2200	10x11.5	1760	12	5560	0.12
6.3 (7.2)	82	5×6	300	40	1700	0.12
	100	6.3×6	300	35	1900	0.12
	220	6.3×6	300	35	1900	0.12
	470	6.3×8	592	15	3630	0.12
	560	6.3×8	706	15	3630	0.12
	560	8×8	706	15	4210	0.12
	680	8×8	857	15	4710	0.12
	1000	8x11.5	1260	14	5100	0.12
	2200	10x11.5	2772	15	5400	0.12
10 (11.5)	47	5×8	300	25	2200	0.12
	220	5×8	440	25	2200	0.12
	330	6.3×8	660	25	3560	0.12
	680	8×8	1360	25	3700	0.12
	820	8x11.5	1640	12	4500	0.12
	1500	10x11.5	3000	12	5440	0.12
16 (18.4)	47	6.3×6	300	25	1620	0.12
	82	6.3×6	300	25	1890	0.12
	100	6.3×6	320	25	1890	0.12
	270	6.3×8	864	15	2680	0.12
	470	8×8	1504	15	2820	0.12
	560	8x11.5	1792	20	3640	0.12
	680	10x11.5	2176	16	4270	0.12
	820	10x11.5	2624	16	4270	0.12
	1000	10x11.5	3200	16	4270	0.12

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Rated Voltage (S.V.)	Cap (μF)	Size Code DxL	Leakage current (μA) max.	ESR (mΩ) max. 100k to 300kHz / 20℃	Rated Ripple Current (mA rms) 100kHz / 105℃	D.F. (tanδ) max. 120Hz / 20℃
20 (23.0)	22	6.3×6	300	60	1450	0.12
	82	6.3×6	328	60	1450	0.12
	220	6.3×8	880	40	1620	0.12
	330	8×8	1320	40	2400	0.12
	470	8x11.5	1880	24	3320	0.12
	820	10x11.5	3280	20	3800	0.12
25 (28.8)	6.8	6.3×6	300	80	1200	0.12
	47	6.3×6	300	40	2000	0.12
	100	6.3×8	500	30	2150	0.12
	180	8×8	900	30	2580	0.12
	220	8x11.5	1100	25	3200	0.12
	470	10x11.5	2350	25	4100	0.12
	560	10x14	2800	20	4500	0.12
	680	8x16	3400	20	4600	0.12
	820	10x14	4100	20	5000	0.12

FREQUENCY COEFFICIENT FOR RIPPLE CURRENT

Frequency	120Hz ≦ f < 1kHz	1KHz ≦ f < 10kHz	10kHz ≦ f < 100kHz	100kHz ≦ f < 500kHz
Coefficient	0.05	0.3	0.7	1.0