

RA series

Standard

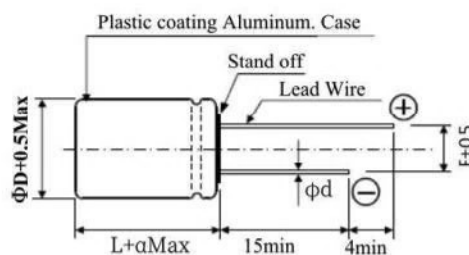
- High voltage, Low ESR, High ripple current
- Load life of 2000 hours at 105°C
- Compliant to the RoHS directive (2011/65/EU)
- Suitable for Power Supply and Industrial Device

耐高压固态铝电容器，具有高频低阻抗特性，产品满足RoHS指令(2011/65/EU)，适合用于电源电路及工业电子设备。

» Specifications

Items	Characteristics	
Operating Temp. Range	-55°C ~ +105°C	
Capacitance Range	15 ~ 1000 μ F	
Capacitance Tolerance	M: $\pm 20\%$	
Rated Voltage Range	35V ~ 125V DC	
Dissipation Factor	Not to exceed the value specified	
(at 120Hz, 20°C)	Not to exceed the value specified (after 2 minutes)	
Leakage Current	Not to exceed the value specified	
ESR (100K~300KHz)	Capacitance Change	Within $\pm 20\%$ of the value before test
Endurance 105°C, 2000h, at rated voltage	Leakage current	Not to exceed the value specified
	ESR	Not to exceed 150% of the value specified
	Dissipation Factor	Not to exceed 150% of the value specified
Moisture Resistance Stored at 60°C, Rh90 ~ 95%, 1000h	Capacitance Change	Within $\pm 20\%$ of the value before test
	Leakage Current	Not to exceed the value specified
	ESR	Not to exceed 150% of the value specified
	Dissipation Factor	Not to exceed 150% of the value specified

» Dimensions



Unit: mm

$\phi D \times L$	ϕD +0.5max.	α	F ± 0.5	ϕd ± 0.05
6.3 × 8	6.3	1.0	2.5	0.5
6.3 × 9	6.3	1.0	2.5	0.5
6.3 × 11	6.3	1.0	2.5	0.5
6.3 × 12	6.3	1.0	2.5	0.5
6.3 × 13	6.3	1.0	2.5	0.5
6.3 × 15	6.3	1.0	2.5	0.5
8 × 8	8.0	1.0	3.5	0.6
8 × 11.5	8.0	1.0	3.5	0.6

$\phi D \times L$	ϕD +0.5max.	α	F ± 0.5	ϕd ± 0.05
8 × 14	8.0	1.0	3.5	0.6
8 × 16	8.0	1.5	3.5	0.6
8 × 20	8.0	1.5	3.5	0.6
10 × 10	10.0	1.0	5.0	0.6
10 × 12.5	10.0	1.0	5.0	0.6
10 × 14	10.0	1.0	5.0	0.6
10 × 16	10.0	1.5	5.0	0.6
10 × 20	10.0	1.5	5.0	0.6

» Capacitance List

W.V (S.V) SIZE	35 (41)	50 (57.5)	63 (72)	80 (92)	100 (115)	100 (115)
6.3 × 8	22~120 uF	10~47 uF	10~39 uF			
6.3 × 9	82~150 uF	39~56 uF	22~47 uF			
6.3 × 11	120~180 uF	47~68 uF	27~56 uF	18~33 uF		
6.3 × 12	120~220 uF	56~82 uF	33~68 uF	22~39 uF		
6.3 × 13	150~220 uF	68~100 uF	39~82 uF	27~39 uF		
6.3 × 15	180~270 uF	68~100 uF	47~100 uF	33~47 uF		
8 × 8	100~220 uF	47~82 uF	27~68 uF	18~33 uF	15~27 uF	
8 × 11.5	150~270 uF	56~100 uF	39~100 uF	27~47 uF	22~39 uF	15~27 uF
8 × 14	180~330 uF	82~150 uF	56~120 uF	33~68 uF	27~56 uF	18~39 uF
8 × 16	220~470 uF	100~180 uF	68~150 uF	47~82 uF	39~68 uF	22~47 uF
8 × 20	330~560 uF	120~220 uF	82~180 uF	56~100 uF	47~82 uF	27~56 uF
10 × 10	150~330 uF	68~150 uF	47~120 uF	33~56 uF	27~47 uF	18~33 uF
10 × 12.5	220~470 uF	100~220 uF	68~150 uF	47~82 uF	39~68 uF	27~47 uF
10 × 14	270~560 uF	120~270 uF	82~180 uF	56~100 uF	47~100 uF	33~56 uF
10 × 16	330~680 uF	120~270 uF	120~220 uF	56~120 uF	47~100 uF	33~68 uF
10 × 20	470~1000 uF	180~390 uF	150~330 uF	82~150 uF	68~120 uF	47~100 uF

» Characteristics List

W.V. (V)	Capacitance (uF)	L.C. (uA, 2min)	tg δ (120Hz, 20°C)	ESR (mΩ, 100kHz)	Rated Ripple Current (mA, r. m. s)	Size Φ D × L (mm)	Part Number
35	100	300	0.12	30	2350	6.3 × 8	RA101M035E080□□
	100	300	0.12	30	2400	6.3 × 9	RA101M035E090□□
	100	300	0.12	22	2700	6.3 × 11	RA101M035E110□□
	220	300	0.12	20	2800	6.3 × 12	RA221M035E120□□
	220	300	0.12	20	2900	6.3 × 13	RA221M035E130□□
	220	300	0.12	18	3100	6.3 × 15	RA221M035E150□□
	100	300	0.12	22	2900	8 × 8	RA101M035F080□□
	100	300	0.12	20	3100	8 × 11.5	RA101M035F115□□
	220	300	0.12	20	3300	8 × 14	RA221M035F140□□
	330	300	0.12	18	3500	8 × 16	RA331M035F160□□
	470	300	0.12	18	3900	8 × 20	RA471M035F200□□
	220	300	0.12	22	3100	10 × 10	RA221M035G100□□
	220	300	0.12	20	3300	10 × 12.5	RA221M035G125□□
	470	300	0.12	20	3500	10 × 14	RA471M035G140□□
	680	300	0.12	18	3900	10 × 16	RA681M035G160□□
	1000	300	0.12	18	4200	10 × 20	RA102M035G200□□
50	10	300	0.12	40	2000	6.3 × 8	RA100M050E080□□
	56	300	0.12	35	2400	6.3 × 9	RA560M050E090□□
	68	300	0.12	30	2500	6.3 × 11	RA680M050E110□□
	82	300	0.12	25	2600	6.3 × 12	RA820M050E120□□

W.V. (V)	Capacitance (μ F)	L.C. (μ A, 2min)	tg δ (120Hz, 20°C)	ESR (m Ω , 100kHz)	Rated Ripple Current (mA, r. m. s)	Size Φ D $\times$ L (mm)	Part Number
50	100	300	0.12	22	2700	6.3 $\times$ 13	RA101M050E130□□
	100	300	0.12	20	2900	6.3 $\times$ 15	RA101M050E150□□
	82	300	0.12	30	1900	8 $\times$ 8	RA820M050F080□□
	100	300	0.12	25	2500	8 $\times$ 11.5	RA101M050F115□□
	100	300	0.12	22	2900	8 $\times$ 14	RA101M050F140□□
	150	300	0.12	20	3100	8 $\times$ 16	RA151M050F160□□
	220	300	0.12	20	3400	8 $\times$ 20	RA221M050F200□□
	100	300	0.12	25	2500	10 $\times$ 10	RA101M050G100□□
	180	300	0.12	25	2900	10 $\times$ 12.5	RA181M050G125□□
	220	300	0.12	22	3100	10 $\times$ 14	RA221M050G140□□
	220	300	0.12	20	3400	10 $\times$ 16	RA221M050G160□□
	330	300	0.12	20	3600	10 $\times$ 20	RA331M050G200□□
63	10	300	0.12	40	2000	6.3 $\times$ 8	RA100M063E080□□
	33	300	0.12	35	2400	6.3 $\times$ 9	RA330M063E090□□
	47	300	0.12	30	2500	6.3 $\times$ 11	RA470M063E110□□
	56	300	0.12	25	2600	6.3 $\times$ 12	RA560M063E120□□
	68	300	0.12	22	2700	6.3 $\times$ 13	RA680M063E130□□
	82	300	0.12	20	2900	6.3 $\times$ 15	RA820M063E150□□
	68	300	0.12	30	1900	8 $\times$ 8	RA680M063F080□□
	100	300	0.12	25	2500	8 $\times$ 11.5	RA101M063F115□□
	120	300	0.12	22	2900	8 $\times$ 14	RA121M063F140□□
	150	300	0.12	20	3100	8 $\times$ 16	RA151M063F160□□
	180	300	0.12	20	3400	8 $\times$ 20	RA181M063F200□□
	100	300	0.12	25	2500	10 $\times$ 10	RA101M063G100□□
	120	300	0.12	25	2900	10 $\times$ 12.5	RA121M063G125□□
	150	300	0.12	22	3100	10 $\times$ 14	RA151M063G140□□
	220	300	0.12	20	3400	10 $\times$ 16	RA221M063G160□□
	330	300	0.12	20	3600	10 $\times$ 20	RA331M063G200□□
80	33	300	0.12	45	1700	8 $\times$ 8	RA330M080F080□□
	33	300	0.12	40	1900	8 $\times$ 11.5	RA330M080F080□□
	56	300	0.12	35	2200	8 $\times$ 14	RA560M080F140□□
	68	300	0.12	35	2400	8 $\times$ 16	RA680M080F160□□
	82	300	0.12	30	2900	8 $\times$ 20	RA820M080F200□□
	56	300	0.12	35	2600	10 $\times$ 10	RA560M080G100□□
	82	300	0.12	35	2400	10 $\times$ 12.5	RA820M080G125□□
	100	300	0.12	35	2700	10 $\times$ 14	RA101M080G140□□
	120	300	0.12	30	3100	10 $\times$ 16	RA121M080G160□□
	150	300	0.12	30	3300	10 $\times$ 20	RA151M080G200□□
100	22	300	0.12	45	1600	8 $\times$ 8	RA220M100F080□□
	39	300	0.12	40	1900	8 $\times$ 11.5	RA390M100F115□□
	56	300	0.12	40	2100	8 $\times$ 14	RA560M100F140□□
	68	300	0.12	35	2400	8 $\times$ 16	RA680M100F160□□
	82	300	0.12	35	2700	8 $\times$ 20	RA820M100F200□□
	68	300	0.12	35	2400	10 $\times$ 12.5	RA680M100G125□□

W.V. (V)	Capacitance (μ F)	L.C. (μ A, 2min)	tg δ (120Hz, 20°C)	ESR (m Ω , 100kHz)	Rated Ripple Current (mA, r. m. s)	Size Φ D $\times$ L (mm)	Part Number
100	100	300	0.12	30	2400	10 $\times$ 14	RA101M100G140□□
	100	300	0.12	30	2700	10 $\times$ 16	RA101M100G160□□
	100	300	0.12	25	3100	10 $\times$ 20	RA101M100G200□□
125	27	300	0.12	40	1900	8 $\times$ 11.5	RA270M125F115□□
	33	300	0.12	40	2100	8 $\times$ 14	RA330M125F140□□
	47	300	0.12	35	2400	8 $\times$ 16	RA470M125F160□□
	56	300	0.12	35	2700	8 $\times$ 20	RA560M125F200□□
	47	300	0.12	35	2400	10 $\times$ 12.5	RA470M125G125□□
	56	300	0.12	30	2400	10 $\times$ 14	RA560M125G140□□
	68	300	0.12	30	2700	10 $\times$ 16	RA680M125G160□□
	100	300	0.12	25	3100	10 $\times$ 20	RA101M125G200□□

» Frequency Coefficient for Ripple Current

Frequency	120Hz $\leq$ freq. < 1KHz	1KHz $\leq$ freq. < 10KHz	10KHz $\leq$ freq. < 100KHz	100KHz $\leq$ freq. < 300KHz
Coefficient	0.05	0.3	0.7	1