

# RA series

## Features

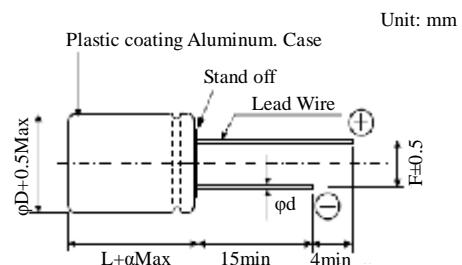
- ◆ High voltage , Low ESR 2000 hours at 105°C.
- ◆ It's a super high working voltage series. Suitable for use with power, industrial device, etc.
- ◆ Lead free-flow is supported.
- ◆ RoHS Compliant.



## Specifications

Items	Characteristics	
Operating Temp. Range	-55°C ~ +105°C	
Capacitance Range	1.8~220μF	
Capacitance Tolerance	M : ±20%	
Rated Voltage Range	35V~200V dc	
Dissipation Factor ( at 120Hz,20°C )	Not to exceed the value specified	
Leakage Current	≤0.2CV (μA, after 2 minutes)	
ESR ( 100K~300KHz )	Not to exceed the value specified	
Endurance 105°C , 2000h , at rated voltage	Capacitance	Within ±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
Moisture Resistance Stored at 60°C , RH90~ 95% , 2000h	Capacitance	Within ±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



φD×L	ΦD +0.5max.	α	F ±0.5	Φd ±0.05
6.3×8	6.3	1.0	2.5	0.6
8×8	8.0	1.0	3.5	0.6
8×11.5	8.0	1.0	3.5	0.6
10×12.5	10.0	1.0	5.0	0.6

## Size List

RV/v (SV) CAP/μF	35 (41)	50 (57.5)	63 (73)	80 NEW (92)	100 NEW (115)	160 NEW (184)	200 NEW (230)
1.8						8×8	10×12.5
3.3						8×8	10×12.5
4.7				6.3×8	8×8	10×12.5	10×12.5
10	6.3×8	6.3×8	6.3×8	6.3×8	8×8 / 8×11.5	10×12.5	
15	6.3×8	6.3×8	6.3×8	8×8	10×12.5		
22	6.3×8/ 8×8	6.3×8/ 8×8	8×8	8×11.5 / 10×12.5	10×12.5		
33	8×8	8×8	8×8/8×11.5	10×12.5			
39	8×8/8×11.5	8×8/8×11.5	8×11.5/10×12.5	10×12.5			
47	8×8/8×11.5	8×8/8×11.5	10×12.5	10×12.5			
56	8×11.5/10×12.5	8×11.5/10×12.5	10×12.5				
68	8×11.5/10×12.5	8×11.5/10×12.5	10×12.5				
82	8×11.5/10×12.5	8×11.5/10×12.5	10×12.5				
100	8×11.5/10×12.5	8×11.5/10×12.5					
220	10×12.5						

**Characteristics List**

W.V. (V)	Capacitance ( $\mu$ F)	L.C. ( $\mu$ A,2min)	$tg\delta$ (120Hz,20°C)	ESR (m $\Omega$ ,100kHz)	Rated Ripple Current(mA,r.m.s.)	Size $\Phi D \times L$ (mm)	Part Number
35	10	300	0.12	45	2000	6.3×8	RA100M035E080□□
	15	300	0.12	45	2000	6.3×8	RA150M035E080□□
	22	300	0.12	45	2000	6.3×8	RA220M035E080□□
	22	300	0.12	35	2600	8×8	RA220M035F080□□
	33	300	0.12	35	2600	8×8	RA330M035F080□□
	39	300	0.12	35	2600	8×8	RA390M035F080□□
	39	300	0.12	30	2980	8×11.5	RA390M035F115□□
	47	329	0.12	35	2600	8×8	RA470M035F080□□
	47	329	0.12	30	2980	8×11.5	RA470M035F115□□
	56	392	0.12	30	2980	8×11.5	RA560M035F115□□
	56	392	0.12	28	3800	10×12.5	RA560M035G125□□
	68	476	0.12	30	2980	8×11.5	RA680M035F115□□
	68	476	0.12	28	3800	10×12.5	RA680M035G125□□
	82	574	0.12	30	2980	8×11.5	RA820M035F115□□
	82	574	0.12	28	3800	10×12.5	RA820M035G125□□
	100	700	0.12	30	2980	8×11.5	RA101M035F115□□
	100	700	0.12	28	3800	10×12.5	RA101M035G125□□
	150	1050	0.12	28	3800	10×12.5	RA151M035G125□□
	220	1540	0.12	28	3800	10×12.5	RA221M035G125□□
50	10	300	0.12	45	2000	6.3×8	RA100M050E080□□
	15	300	0.12	45	2000	6.3×8	RA150M050E080□□
	22	300	0.12	45	2600	8×8	RA220M050F080□□
	33	330	0.12	45	2600	8×8	RA330M050F080□□
	33	330	0.12	45	2700	8×11.5	RA330M050F115□□
	39	390	0.12	45	2700	8×11.5	RA390M050F115□□
	39	390	0.12	45	2900	10×12.5	RA390M050G125□□
	47	470	0.12	45	2900	10×12.5	RA470M050G125□□
	56	560	0.12	45	2900	10×12.5	RA560M050G125□□
	82	820	0.12	45	2900	10×12.5	RA820M050G125□□
	100	1000	0.12	45	2900	10×12.5	RA101M050G125□□
63	10	300	0.12	45	1700	6.3×8	RA100M063E080□□
	15	300	0.12	45	1900	8×8	RA150M063F080□□
	22	300	0.12	45	2700	8×11.5	RA220M063F115□□
	22	300	0.12	45	2900	10×12.5	RA220M063G125□□
	33	415.8	0.12	45	2900	10×12.5	RA330M063G125□□
	39	491.4	0.12	45	2900	10×12.5	RA390M063G125□□
	47	491.4	0.12	45	2900	10×12.5	RA470M063G125□□
	56	705.6	0.12	45	2900	10×12.5	RA560M063G125□□
	82	1033.2	0.12	45	2900	10×12.5	RA820M063G125□□
80	4.7	300	0.12	45	1700	6.3×8	RA4R7M080E080□□
	10	300	0.12	45	1700	6.3×8	RA100M080E080□□
	15	300	0.12	45	1900	8×8	RA150M080F080□□
	22	352	0.12	45	2700	8×11.5	RA220M080F115□□
	22	352	0.12	45	2900	10×12.5	RA220M080G125□□
	33	528	0.12	45	2900	10×12.5	RA330M080G125□□
	39	624	0.12	45	2900	10×12.5	RA390M080G125□□
	47	752	0.12	45	2900	10×12.5	RA470M080G125□□
100	4.7	300	0.12	45	1700	8×8	RA4R7M100F080□□
	10	300	0.12	45	1700	8×8	RA100M100F080□□
	10	300	0.12	45	1900	8×11.5	RA100M100F115□□
	15	300	0.12	45	2700	10×12.5	RA150M100G125□□
	22	440	0.12	45	2900	10×12.5	RA220M100G125□□
160	1.8	300	0.12	80	800	8×8	RA1R8M160F080□□
	3.3	300	0.12	80	800	8×8	RA3R3M160F080□□
	4.7	300	0.12	80	1200	10×12.5	RA4R7M160G125□□
	10	320	0.12	80	1200	10×12.5	RA100M160G125□□
200	1.8	300	0.12	150	500	10×12.5	RA1R8M200G125□□
	3.3	300	0.12	150	500	10×12.5	RA3R3M200G125□□
	4.7	300	0.12	150	500	10×12.5	RA4R7M200G125□□

**Frequency Coefficient for Ripple Current**

Frequency	120Hz≤freq.<1KHz	1KHz≤freq.<10KHz	10KHz≤freq.<100KHz	100KHz≤freq.<300KHz
Coefficient	0.05	0.30	0.70	1.00