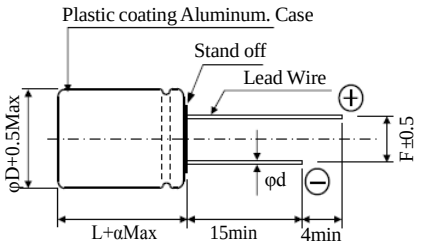
RL series Super low ESR & large ripple current

It's a super low ESR & large permissible ripple current series ,
Suitable for motherboard, servers, VGA, etc.
Lead free-flow is supported.

✧ Specifications

Items	Characteristics	
Operating Temp. Range	-55℃～+105℃	
Capacitance Range	220～4000μF	
Capacitance Tolerance	M：±20%	
Rated Voltage Range	2.5V ～10V DC	
Dissipation Factor （at 120Hz,20℃）	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℃，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℃，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



Unit: mm

φ DxL	ΦD +0.5max.	α	F ±0.5	Φd ±0.05
6.3x8	6.3	1.0	2.5	0.6
6.3x9	6.3	1.0	2.5	0.5
6.3x11	6.3	1.0	2.5	0.5
6.3x12	6.3	1.0	2.5	0.5
8x8	8.0	1.0	3.5	0.6
8x11.5	8.0	1.0	3.5	0.6
10x12.5	10.0	1.0	5.0	0.6

✧ Capacitance List

SIZE W.V（S.V）	6.3×8	6.3×9	6.3×11	6.3×12	8×8	8×11.5	10×10	10×12.5
2.5（2.8）	560 ~ 1200μF	820 ~ 1200μF	1000 ~ 1500μF	1500 ~ 1800μF	1000 ~ 1800μF	1200 ~ 2400μF	1500 ~ 2700μF	2000 ~ 4000μF
4（4.6）	470 ~ 820μF	560 ~ 1000μF	680 ~ 1000μF	1000 ~ 1200μF	680 ~ 1200μF	1000 ~ 1800μF	1000 ~ 2200μF	1500 ~ 2700μF
6.3（7.2）	330 ~ 820μF	560 ~ 1000μF	680 ~ 1000μF	1000 ~ 1200μF	470 ~ 1200μF	820 ~ 1500μF	820 ~ 1800μF	1200 ~ 2400μF
7.5（8.6）	330 ~ 680μF	470 ~ 680μF	560 ~ 820μF	1000 ~ 1200μF	560 ~ 1200μF	820 ~ 1500μF	820 ~ 1500μF	1200 ~ 2400μF
10（11.5）	220 ~ 560μF	330 ~ 560μF	470 ~ 680μF	680 ~ 820μF	330 ~ 820μF	560 ~ 1000μF	560 ~ 1200μF	820 ~ 1800μF
12（13.8）	220 ~ 390μF	330 ~ 560μF	390 ~ 560μF	560 ~ 820μF	330 ~ 680μF	470 ~ 1000μF	470 ~ 820μF	680 ~ 1500μF
14（16.1）*NEW*	220 ~ 390μF	330 ~ 560μF	390 ~ 560μF	560 ~ 680μF	330 ~ 680μF	470 ~ 1000μF	470 ~ 820μF	680 ~ 1500μF

✧ Characteristics List

W.V. (V)	Capacitance (μF)	L.C. (μA,2min)	tg δ (120Hz,20℃)	ESR (mΩ,100kHz)	Rated Ripple Current(mA,r.m.s)	Size ΦD×L (mm)	Part Number
2.5	560	280	0.08	7	5600	6.3x8	RL561M2R5E080□□
	1200	600	0.08	7	5600	6.3x8	RL122M2R5E080□□
	1200	600	0.08	7	5800	6.3x9	RL122M2R5E090□□
	1200	600	0.08	7	6000	6.3x11	RL122M2R5E110□□
	1200	600	0.08	7	6200	6.3x12	RL122M2R5E120□□
	1200	600	0.08	7	6200	8x8	RL122M2R5F080□□
	1500	750	0.08	7	6500	8x11.5	RL152M2R5F115□□
	1800	900	0.08	7	6600	10x10	RL182M2R5G100□□
	3300	1650	0.08	7	6800	10x12.5	RL332M2R5G125□□
4	560	448	0.08	8	5600	6.3x8	RL561M004E080□□
	680	544	0.08	7	5800	6.3x9	RL681M004E090□□
	820	656	0.08	7	6000	6.3x11	RL821M004E110□□
	1000	800	0.08	7	6200	6.3x12	RL102M004E120□□
	1000	800	0.08	7	6200	8x8	RL102M004F080□□
	1200	960	0.08	7	6500	10x10	RL182M004G100□□
	1800	1440	0.08	7	6600	8x11.5	RL122M004F115□□
	2200	1760	0.08	7	6800	10x12.5	RL222M004G125□□
6.3	330	415.8	0.08	8	5600	6.3x8	RL331M6R3E080□□
	330	415.8	0.08	7	6200	8x8	RL331M6R3F080□□
	470	592.2	0.08	8	5600	6.3x8	RL471M6R3E080□□
	470	592.2	0.08	7	6200	8x8	RL471M6R3F080□□
	560	705.6	0.08	8	5600	6.3x8	RL561M6R3E080□□
	560	705.6	0.08	7	6200	8x8	RL561M6R3F080□□
	680	856.8	0.08	8	5600	6.3x8	RL681M6R3E080□□
	680	856.8	0.08	7	6200	8x8	RL681M6R3F080□□
	820	1033.2	0.08	7	5800	6.3x9	RL821M6R3E090□□
	820	1033.2	0.08	7	6000	6.3x11	RL821M6R3E110□□
	820	1033.2	0.08	7	6200	8x8	RL821M6R3F080□□
	1000	1260	0.08	7	6000	6.3x11	RL102M6R3E110□□
	1200	1512	0.08	7	6200	6.3x12	RL122M6R3E120□□
	1200	1512	0.08	7	6500	8x11.5	RL122M6R3F115□□
	1500	1890	0.08	7	6500	8x11.5	RL152M6R3F115□□
	1500	1890	0.08	7	6600	10x10	RL152M6R3G100□□
	1500	1890	0.08	7	6800	10x12.5	RL152M6R3G125□□
	2200	2772	0.08	7	6800	10x12.5	RL222M6R3G125□□
7.5	560	840	0.08	8	5600	6.3x8	RL561M7R5E080□□
	680	1020	0.08	7	5800	6.3x9	RL681M7R5E090□□
	820	1230	0.08	7	6000	6.3x11	RL821M7R5E110□□
	1000	1500	0.08	7	6200	6.3x12	RL102M7R5E120□□
	1000	1500	0.08	7	6200	8x8	RL102M7R5F080□□
	1200	1800	0.08	7	6200	6.3x12	RL122M7R5E120□□
	1200	1800	0.08	7	6500	8x11.5	RL122M7R5F115□□
	1500	2250	0.08	7	6600	10x10	RL152M7R5G100□□
	2200	3300	0.08	7	6800	10x12.5	RL222M7R5G125□□
10	330	660	0.08	8	5600	6.3x8	RL331M010E080□□
	560	1120	0.08	8	5600	6.3x8	RL561M010E080□□
	560	1120	0.08	7	5800	6.3x9	RL561M010E090□□
	560	1120	0.08	7	6200	8x8	RL561M010F080□□
	680	1360	0.08	7	6000	6.3x11	RL681M010E110□□

W.V. (V)	Capacitance (μF)	L.C. (μA,2min)	tg δ (120Hz,20℃)	ESR (mΩ,100kHz)	Rated Ripple Current(mA,r.m.s)	Size ΦDxL (mm)	Part Number
10	680	1360	0.08	7	6200	8x8	RL681M010F080□□
	820	1640	0.08	7	6200	6.3x12	RL821M010E120□□
	820	1640	0.08	7	6200	8x8	RL821M010F080□□
	1000	2000	0.08	7	6500	8x11.5	RL102M010F115□□
	1200	2400	0.08	7	6600	10x10	RL122M010G100□□
	1500	3000	0.08	7	6800	10x12.5	RL152M010G125□□
12	330	792	0.08	12	5400	6.3x8	RL331M012E080□□
	470	1128	0.08	9	5600	6.3x9	RL471M012E090□□
	560	1344	0.08	12	5600	6.3x9	RL561M012E090□□
	560	1344	0.08	8	5800	6.3x11	RL561M012E110□□
	560	1344	0.08	8	6000	8x8	RL561M012F080□□
	680	1632	0.08	8	6000	6.3x12	RL681M012E120□□
	820	1968	0.08	8	6000	6.3x12	RL821M012E120□□
	820	1968	0.08	8	6300	8x11.5	RL821M012F115□□
	820	1968	0.08	8	6400	10x10	RL821M012G100□□
	1000	2400	0.08	8	6600	10x12.5	RL102M012G125□□
14	330	924	0.08	12	5400	6.3x8	RL331M014E080□□
	470	1316	0.08	9	5600	6.3x9	RL471M014E090□□
	560	1568	0.08	12	5600	6.3x9	RL561M014E090□□
	560	1568	0.08	8	5800	6.3x11	RL561M014E110□□
	560	1568	0.08	8	6000	8x8	RL561M014F080□□
	680	1904	0.08	8	6000	6.3x12	RL681M014E120□□
	820	2296	0.08	8	6000	6.3x12	RL821M014E120□□
	820	2296	0.08	8	6300	8x11.5	RL821M014F115□□
	820	2296	0.08	8	6400	10x10	RL821M014G100□□
	1000	2800	0.08	8	6600	10x12.5	RL102M014G125□□

✧ Frequency Coefficient for Ripple Current

Frequency	120Hz≤freq.<1KHz	1KHz≤freq.<10KHz	10KHz≤freq.<100KHz	100KHz≤freq.<300KHz
Coefficient	0.05	0.3	0.7	1

PolyCap Part Number System

1. POLYCAP Explanation of Part Number (**Radial** Type).

R	L	8	2	1	M	2	R	5	E	0	8	0	C	A
Series name		Rated capacitance			Capacitance tolerance			Rated voltage	Case diameter			Case length	Taping or forming of terminal code	

Example

- **RA** Series
- **RH** Series
- **RV** Series
- **RE** Series
- **RL** Series
- **RM** Series
- **RS** Series
- **RN** Series
- **RF** Series
- **RQ** Series
- **RU** Series
- **VS** Series
- **VN** Series
- **VA** Series

Rated Cap.(μF)	Code
4.7	4R7
10	100
33	330
100	101
820	821
1000	102
2700	272

Tol.%	Code
±20	M
±10	H
±5	Z

Rated Volt.(v)	Code
2.5	2R5
6.3	6R3
10	010
16	016
25	025
35	035
50	050
63	063
100	100
125	125
160	160
200	200

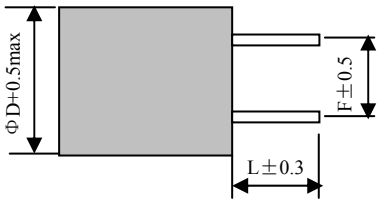
Dia (mm)	Code
4	B
5/5.5	C
6.3	E
8	F
10	G

Len. (mm)	Code
5	050
6	060
7	070
8	080
11	110
11.5	115
12.5	125
14	140
16	160
20	200

Taping or lead terminal wire process code.
None suffix for regular length lead type products

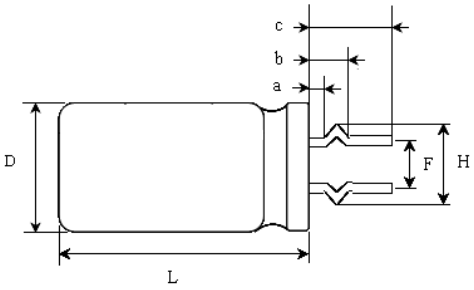
2. POLYCAP Radial lead terminal process

1) Specifications for lead terminal cutting



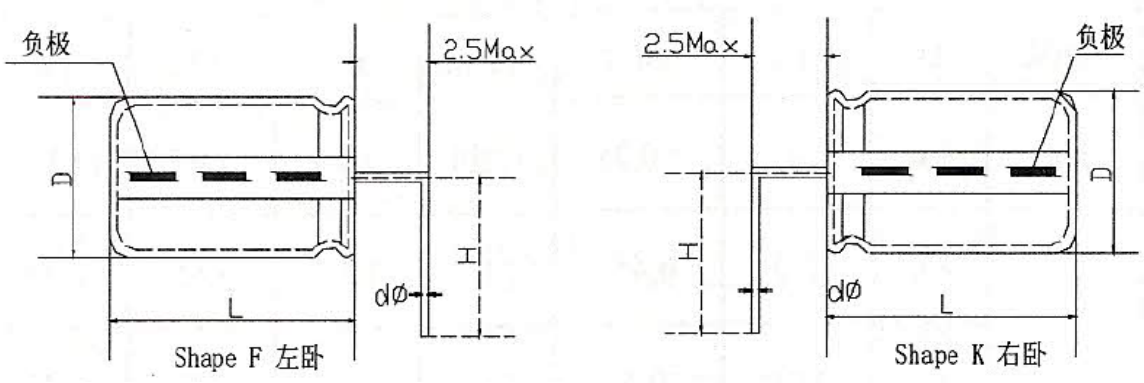
Shape A (lead cutting)

Lead terminal cutting code	Cutting size(L/mm)	Applicable case size(D/mm)
CI	2.2	
CA	2.5	
CJ	2.8	
CB	3.0	Φ4
CC	3.2	Φ5
CD	3.3	Φ5.5
CE	3.5	Φ6.3
CF	4.0	Φ8
CG	5.0	Φ10
CH	6.0	



Shape B (lead cutting and crimping)

lead cutting and crimping code	H±0.5	a±0.5	b±0.5	c±0.5
BA	4.5	1.0	4.0	7.5
BB	4.5	1.0	4.0	8.0
BC	4.5	1.0	4.0	9.5



Shape F、K (lead cutting and bending)

Shape F 左卧 code	Shape K 右卧 code	H±0.5
FA	KA	6.3
FB	KB	8.0
FC	KC	10.0

2) POLYCAP Specifications for Taping

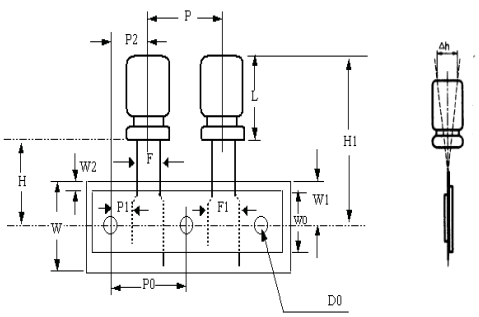


Fig-1(Φ5～Φ8)

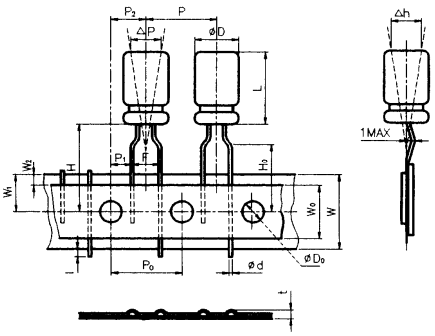


Fig-2(Φ5～Φ8)

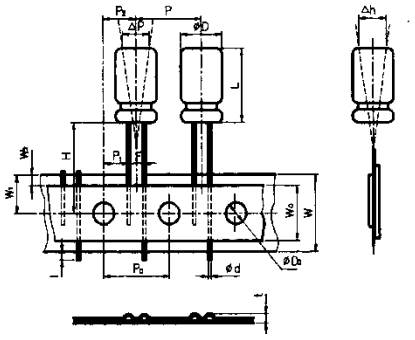


Fig-3(Φ10)

Code	D	L	d	P	P0	P1	F	W	W0	W1	W2	H	D0	△h	t
Tol.	±0.5	±1.0	±0.02	±1.0	±0.2	±0.7	±0.5	±0.5	Min	±0.5	Max	0.75 -0.5	±0.2	Max	±0.3
Item	4	7~9(+1)	0.5	12.7	12.7	4.6	2.2	18	11	9	1.5	18.5	4. 1	1	0.3
		10(+1)	0.45				1.5								
	5	5(+1)	0.45	12.7	12.7	4.6	2.0	18	11	9	1.5	18.5	4.1	1	0.3
		6-9(+1)	0.5				2.5								
	5.5	7-11(+1)	0.5	12.7	12.7	4.6	2.5	18	11	9	1.5	18.5	4.1	1	0.3
	6.3	5-7(+1)	0.5	12.7	12.7	4.6	2.5	18	11	9	1.5	18.5	4.1	1	0.6
		8(+1)	0.6				3.5								
		9-13(+1)	0.5				5.0								
		15(+1.5)	0.6												
	8	8-14(+1)	0.6	12.7	12.7	4.6	3.5	18	12	9	1.5	18.5	4.1	1	0.6
		16-20(+1.5)					5.0								
	10	12.5~14(+1)	0.6	12.7	12.7	3.85	5.0	18	12	9	1.5	18.5	4.1	1	0.6
		16-20(+1.5)													

Taping code	Taping size(F/mm)	Applicable case size(ΦD/mm)
TA	2.0	Φ5
TB	2.5	Φ5, Φ5.5,Φ6.3
TC	3.5	Φ6.3,Φ8
TD	5.0	Φ6.3,Φ8,Φ10
TR	Taping and Reel	