

# Cylinder Type Electric Double Layer Capacitors for General Electronic Equipment for Consumer

WAVE

## PART NUMBER

R	S	E	L	P	2	4	5	2	R	7	E	1	5	0	2	2
①					②			③			④	⑤		⑥		

## ①Series

Code (1)(2)(3)(4)	
RSELP	Cylinder type electric double layer capacitor for General Electronic Equipment for Consumer
RSELT	Cylinder type electric double layer capacitor for General Electronic Equipment for Consumer

## (1) Product Group

Code	
R	Energy Devices

## (2) Category

Code	Recommended equipment	Quality Grade
S	General Electronic Equipment for Consumer	3

## (3) Type

Code	
E	Cylinder Type Electric Double Layer Capacitors

## (4) Features, Characteristics

Code	
LP	LP Series
LT	LT Series

## ②Nominal capacitance

Code (example)	Nominal capacitance[F]
245	2.4
335	3.3
505	5.0
685	6.8
705	7.0
106	10
126	12
156	15
166	16
206	20
256	25
336	33
506	50

## ③Rated voltage

Code	Rated voltage[V]
2R7	2.7

※R=Decimal point

## ④Dimensions (φ D)

Code	Dimensions (φ D) [mm]
E	8
F	10
G	12.5
J	16
K	18

## ⑤Dimensions (L)

Code	Dimensions (L) [mm]
15	15
20	20
25	25
30	30
32	32
35	35
40	40

## ⑥Forming and packing

Code	Forming and packing
001 ~ ZZZ	Please contact us

## ■ SPECIFICATIONS [RSEL P]

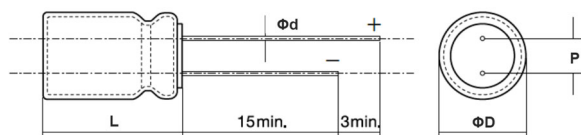
All size

Items	Specified value
Category temperature range	-40°C ~ +85°C
Rated voltage	2.7V (2.3V at +70°C ~ +85°C)

Initial spec

New part number	Old part number (for reference)	Capacitance [F]	Internal resistance [mΩ]	Temperature characteristics
RSELP2452R7E15022	LP08152R7245U	2.4±20%	Under 120	Lowest temperature (-40°C) Capacitance: Over 85% of initial spec. Internal resistance: Under 6 times of initial spec. High temperature (70°C) Capacitance: Within initial spec. Internal resistance: Within initial spec. Highest temperature (85°C) Capacitance: Over 90% of initial spec. Internal resistance: Within initial spec.
RSELP3352R7E20021	LP08202R7335U	3.3±20%	Under 75	
RSELP5052R7F20023	LP10202R7505U	5.0±20%	Under 60	
RSELP7052R7F25009	LP10252R7705U	7.0±20%	Under 60	
RSELP1062R7F30024	LP10302R7106U	10±20%	Under 35	
RSELP1262R7F40011	LP10402R7126U	12±20%	Under 40	
RSELP1062R7G20025	LP12202R7106U	10±20%	Under 45	
RSELP1262R7G25016	LP12252R7126U	12±20%	Under 45	
RSELP1662R7G30017	LP12302R7166U	16±20%	Under 40	
RSELP2062R7G35026	LP12352R7206U	20±20%	Under 40	

External dimensions



Unit: mm

New part number	Old part number	Φ D	L max	Φ d	P
RSELP2452R7E15022	LP08152R7245U	8	17	0.6	3.5
RSELP3352R7E20021	LP08202R7335U	8	22	0.6	3.5
RSELP5052R7F20023	LP10202R7505U	10	22	0.6	5
RSELP7052R7F25009	LP10252R7705U	10	27	0.6	5
RSELP1062R7F30024	LP10302R7106U	10	32	0.6	5
RSELP1262R7F40011	LP10402R7126U	10	42	0.6	5
RSELP1062R7G20025	LP12202R7106U	12.5	22	0.6	5
RSELP1262R7G25016	LP12252R7126U	12.5	27	0.6	5
RSELP1662R7G30017	LP12302R7166U	12.5	32	0.6	5
RSELP2062R7G35026	LP12352R7206U	12.5	37	0.6	5

## ■ RELIABILITY DATA [RSEL P]

Items	Specified value	Test methods and remark
Soldering heat resistance	Capacitance: Within initial spec. Internal resistance: Within initial spec. Appearance: No noticeable abnormality.	Material: Sn-3Ag-0.5Cu Solder temperature: 260±5°C Dipping time: 10 sec Max. Dipping depth: 1.5~2.0mm from a root
Floating charge characteristics	Capacitance: Over 70% of initial spec. Internal resistance: Under 4 times of initial spec. Appearance: No noticeable abnormality.	Temperature: 70±2°C or 85±2°C Apply a voltage of 2.7V (at 70°C) or 2.3V (at 85°C) to the capacitor for 1,000 hours, and measure the characteristics after returning to normal temperature and humidity.
Charge/Discharge cycle characteristics		Measure after charging and discharging 10,000 times. The charge/discharge cycle test conditions are as follows.
Humidity durability	Capacitance: Within initial spec. Internal resistance: Under 4 times of initial spec. Appearance: No noticeable abnormality.	Temperature: 40±2°C Humidity: 90~95%RH Leave the capacitor for 500 hours and measure the characteristics after returning to normal temperature and humidity.
Shock resistance	No exterior abnormality observed.	According to JIS C 60068-2-27 Half-sine wave A=294
Vibration resistance	Initial spec. values retained.	Apply a sine wave vibration of 1.5mm amplitude and frequency 10~55Hz, for 2 hours per each direction (X, Y and Z), total 6 hours.

## ● Charge/Discharge cycle test condition

New part number	Old part number (for reference)	Charging voltage [V]	Charging time [sec]	Max. Charging current [A]	Discharge current [A]	End voltage [V]
RSELP2452R7E15022	LP08152R7245U	2.7	30	0.24	0.24	1.5
RSELP3352R7E20021	LP08202R7335U			0.33	0.33	
RSELP5052R7F20023	LP10202R7505U			0.5	0.5	
RSELP7052R7F25009	LP10252R7705U			0.7	0.7	
RSELP1062R7F30024	LP10302R7106U			1.0	1.0	
RSELP1262R7F40011	LP10402R7126U			1.2	1.2	
RSELP1062R7G20025	LP12202R7106U			1.0	1.0	
RSELP1262R7G25016	LP12252R7126U			1.2	1.2	
RSELP1662R7G30017	LP12302R7166U			1.6	1.6	
RSELP2062R7G35026	LP12352R7206U			2.0	2.0	

## ■ SPECIFICATIONS [RSELT]

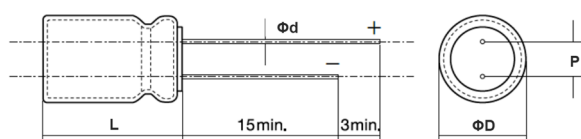
All size

Items	Specified value
Category temperature range	-40°C ~ +85°C
Rated voltage	2.7V (2.3V at +70°C ~ +85°C)

Initial spec

New part number	Old part number (for reference)	Capacitance [F]	Internal resistance [mΩ]	Internal DC resistance (*typical) [mΩ]	Temperature characteristics
RSELT3352R7E20001	LT08202R7335	3.3±20%	Under 60	100	Within category temperature range: Change in Capacitance : Within ±30% of measured value at 20°C Internal resistance : 200% or less of initial spec.
RSELT6852R7F20002	LT10202R7685	6.8±20%	Under 50	55	
RSELT1062R7F30003	LT10302R7106	10±20%	Under 30	30	
RSELT1562R7F40004	LT10402R7156	15±20%	Under 25	20	
RSELT1562R7G25005	LT12252R7156	15±20%	Under 25	25	
RSELT2562R7J25006	LT16252R7256	25±20%	Under 17	18	
RSELT3362R7J32007	LT16322R7336	33±20%	Under 13	14	
RSELT5062R7K40008	LT18402R7506	50±20%	Under 10	12.5	

External dimensions



Unit: mm

New part number	Old part number	ΦD	L max	Φd	P
RSELT3352R7E20001	LT08202R7335	8	22	0.6	3.5
RSELT6852R7F20002	LT10202R7685	10	22	0.6	5
RSELT1062R7F30003	LT10302R7106	10	32	0.6	5
RSELT1562R7F40004	LT10402R7156	10	42	0.6	5
RSELT1562R7G25005	LT12252R7156	12.5	27	0.6	5
RSELT2562R7J25006	LT16252R7256	16	28	0.8	7.5
RSELT3362R7J32007	LT16322R7336	16	34	0.8	7.5
RSELT5062R7K40008	LT18402R7506	18	42	0.8	7.5

## ■ RELIABILITY DATA [RSELT]

Items	Specified value	Test methods and remark
Soldering heat resistance	Change in Capacitance : Within ±10% of initial measured value. Internal resistance: Within initial spec. Appearance: No noticeable abnormality.	Material: Sn-3Ag-0.5Cu Solder temperature: 260±5°C Dipping time: 11 sec Max. Dipping depth: 2.0~2.5mm from a root
Floating charge characteristics	Change in Capacitance : Within ±30% of initial measured value. Internal resistance: 200% or less of initial spec. Appearance: No noticeable abnormality.	Temperature: 70±2°C or 85±2°C Apply a voltage of 2.7V (at 70°C) or 2.3V (at 85°C) to the capacitor for 1,000 hours, and measure the characteristics after returning to normal temperature and humidity.
Charge/Discharge cycle characteristics		Measure after charging and discharging 10,000 times. The charge/discharge cycle test conditions are as follows.
Damp heat	Change in Capacitance : Within ±30% of initial measured value. Internal resistance: 300% or less of initial spec. Appearance: No noticeable abnormality.	Temperature: 40±2°C Humidity: 90~95%RH Leave the capacitor for 500 hours and measure the characteristics after returning to normal temperature and humidity.
Vibration resistance	Change in Capacitance : Within ±10% of initial measured value. Internal resistance: Within initial spec. Appearance: No noticeable abnormality.	Apply a sine wave vibration of 1.5mm amplitude and frequency 10~55Hz, for 2 hours per each direction (X, Y and Z), total 6 hours.

## ● Charge/Discharge cycle test condition

New part number	Old part number (for reference)	Charging voltage [V]	Charging time [sec]	Max. Charging current [A]	Discharge current [A]	End voltage [V]
RSELT3352R7E20001	LT08202R7335	2.7	30	0.33	0.33	1.5
RSELT6852R7F20002	LT10202R7685			0.68	0.68	
RSELT1062R7F30003	LT10302R7106			1.0	1.0	
RSELT1562R7F40004	LT10402R7156			1.5	1.5	
RSELT1562R7G25005	LT12252R7156			1.5	1.5	
RSELT2562R7J25006	LT16252R7256			2.5	2.5	
RSELT3362R7J32007	LT16322R7336			3.3	3.3	
RSELT5062R7K40008	LT18402R7506			5.0	5.0	