

RJ Series

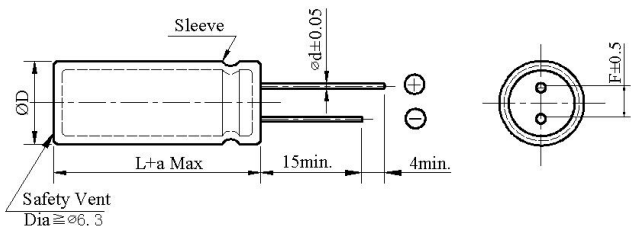
- Long life and High reliability.
- Load life 2,000~5,000 hours at 125°C.
- Suitable for output circuit and input circuit of LED driving power.
- RoHS Compliant



◆ SPECIFICATIONS

Item	Performance Characteristics									
Category Temperature Range	-40 ~ +125℃									
Working Voltage Range	10 ~ 100Vdc						160 ~ 450Vdc			
Capacitance Range	4.7 ~ 4,700μF						1 ~ 220μF			
Capacitance Tolerance	±20% (at 20℃ and 120Hz)									
Dissipation Factor (tanδ) (at 20℃, 120Hz)	Rated Voltage (V)	10	16	25	35	50	63	100	160~250	350~450
	tanδ(Max)	0.20	0.16	0.14	0.12	0.10	0.09	0.08	0.15	0.20
Leakage Current	10~400Vdc				450Vdc					
	I≤0.01CV to 3μA (2minutes)				I≤0.03CV+ 10μA (2minutes)					
	I: Leakage current (μA) C: Rated capacitance (μF) V: Rated voltage (V)									
Low Temperature Characteristics Impedance Ratio(MAX)	Rated Voltage (V)	10	16	25	35	50	63	100	160~250	350~450
	Z(-25℃)/Z(+20℃)	4	3	2	2	2	2	2	3	6
	Z(-40℃)/Z(+20℃)	6	4	3	3	3	3	3	6	9
Endurance	(at 120Hz)									
	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjected to DC voltage with the rated ripple current is applied for 2,000~5,000 hours at 125℃.									
	Capacitance change				≒ ±20% of the initial value				Case Dia	Life time (hours)
	Dissipation factor(tanδ)				≒ 200% of the specified value				Φ8	2,000
	Leakage current				≒ specified value				Φ10	3,000
Shelf Life	≥Φ12.5 5,000									
	The following requirements shall be satisfied when the capacitor are restored to 20℃ after the rated voltage applied for 1,000 hours at 125℃ without voltage applied.									
	Capacitance change				≒ ±20% of the initial value					
	Dissipation factor(tanδ)				≒ 200% of the specified value					
	Leakage current				≒ 200% of the specified value					

◆ **DIMENSIONS (mm)**



ΦD	8	10	12.5	16	18
ΦD	ΦD +0.5 Max				
Φd	0.5/0.6	0.6	0.6	0.8	0.8
F	3.5	5.0	5.0	7.5	7.5
a	L+2.0 Max				

◆ **PART NUMBER SYSTEM(Example : 450V 10μF)**

E	R	J	2	W	1	0	0	M	1	2	2	0	0	0	Y
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Sleeve code(Yellow)

Lead length code

Lead forming Type code

Size code(1220 : 12.5×20)

Capacitance tolerance code(M: $\pm 20\%$)

Capacitance code (10μF)

Voltage code(450V)

Series code(RJ)

Category code(E)

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◆ Case size & Permissible rated ripple current: (mA rms) at 125°C/100KHz

μF \ Vdc	10		16		25	
	$\Phi\text{D} \times \text{L}$	RC	$\Phi\text{D} \times \text{L}$	RC	$\Phi\text{D} \times \text{L}$	RC
100			8×12	261	8×12	261
220	8×12	261	10×12	461	10×12	446
330	8×12	276	10×12	476	10×16	476
470	10×12	476	10×16	607	10×20	692
1000	10×20	738	12.5×20	738	12.5×25	1000
2200	12.5×25	1100	16×25	1100	16×30	1461
3300	16×25	1169	16×30	1423	16×35	1615
4700	16×30	1423				

μF \ Vdc	35		50		100	
	$\Phi\text{D} \times \text{L}$	RC	$\Phi\text{D} \times \text{L}$	RC	$\Phi\text{D} \times \text{L}$	RC
4.7			8×12	100	8×12	120
10			8×12	150	8×12	170
22	8×12	78	8×12	200	8×12	250
33	8×12	105	8×12	230	10×12	290
47	8×12	148	8×12	261	10×16	320
100	8×12	261	10×12	400	12.5×20	515
220	10×16	476	10×20	684	16×25	846
330	10×20	615	12.5×20	769	16×30	1000
470	12.5×20	738	12.5×25	923	18×40	1230
1000	16×25	1100	16×30	1676		
2200	16×35	1961	18×40	2153		
3300	18×35	2153				

μF \ Vdc	160		200		250	
	$\Phi\text{D} \times \text{L}$	RC	$\Phi\text{D} \times \text{L}$	RC	$\Phi\text{D} \times \text{L}$	RC
2.8			8×12	80	8×12	80
3.3	8×12	88	8×12	92	8×12	90
4.7	8×12	96	8×12	100	8×16	100
5.6	8×16	102	8×16	108	8×16	120
6.8	8×16	110	8×16	118	8×16	140
8.2	8×16	180	10×16	180	10×16	160
10	8×16	250	10×16	250	10×16	180
15	8×20	340	10×20	358	10×20	265
22	10×20	500	10×20	525	12.5×20	380
33	10×20	525	12.5×20	600	12.5×20	525
47	12.5×20	660	12.5×25	695	12.5×25	610
68	12.5×25	760	16×20	760	16×30	720
100	16×25	1120	16×30	1180	16×30	850
150	18×25	1360	18×30	1430	18×35	1200
220	18×25	1400	18×35	1700		

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◆ Case size & Permissible rated ripple current: (mA rms) at 125°C/100KHz

μF \ Vdc	350		400		450	
	$\Phi\text{D} \times \text{L}$	RC	$\Phi\text{D} \times \text{L}$	RC	$\Phi\text{D} \times \text{L}$	RC
1.0	8×12	64	8×16	72		
1.5	8×12	70	8×16	84	8×16	88
1.8	8×12	78	8×16	85	8×16	90
2.2	8×16	88	10×16	92	10×16	96
2.8	8×16	96	10×16	100	10×16	100
3.3	8×16	110	10×16	110	10×16	110
4.7	8×20	130	10×20	130	10×20	130
5.6	8×20	180	12.5×20	180	12.5×20	180
6.8	10×16	220	12.5×20	232	12.5×20	232
8.2	10×20	238	12.5×20	250	12.5×20	262
10	10×20	280	12.5×20	294	12.5×20	320
15	12.5×20	400	12.5×25	420	12.5×25	420
22	12.5×20	525	16×25	560	16×25	560
33	16×20	630	16×30	674	16×30	700
47	16×25	760	18×30	884	18×30	880
68	16×30	850	18×40	1100	18×40	1000
100	18×35	1300	18×50	1470		

◆ RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Vdc	Frequency (Hz)				
	50	120	1K	10K	100K
10 ~ 100	0.20	0.45	0.70	0.80	1.00
160 ~ 450	0.25	0.50	0.80	0.90	1.00