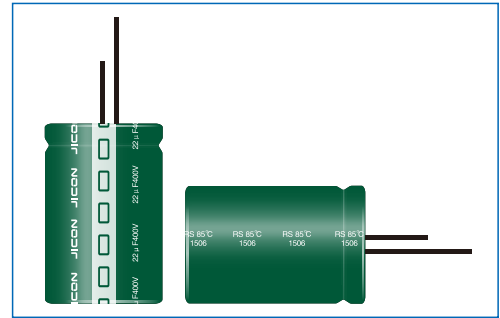


RS 系列 SERIES

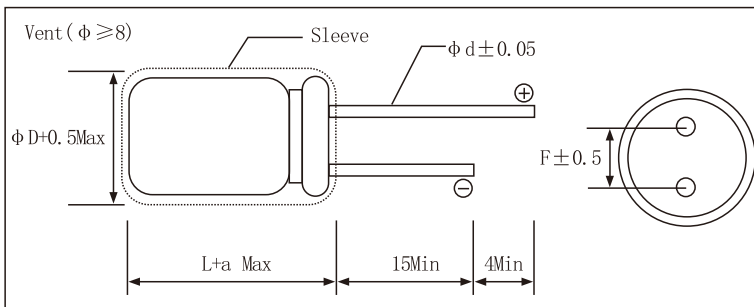
- 2000hours at 85°C
- RoHS Compliant



◆ SPECIFICATION

Items	Characteristics																																																			
Operating Temperature Range(°C)	- 40 ~ +85° (6.3to400V)	- 25 ~ +85° (450V)																																																		
Voltage range (V)	6.3~450V																																																			
Capacitance Range (μF)	0.1~39000 μF																																																			
Capacitance Tolerance	±20% (at 20°C, 120Hz)																																																			
leakage current (μA)	6.3 ~ 100V	160 ~ 450V																																																		
	After 2 minute's at 20°C application of rated voltage, leakage current is not more than 0.02CV or 4(μA), whichever is greater.																																																			
Dissipation Factor(Tan δ)	After 3 minute's at 20°C application of rated voltage, leakage current is not more than 0.03CV+15																																																			
	<table border="1"> <thead> <tr> <th>WV(V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> <th>160to250V</th> <th>315to400V</th> <th>450</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Tan δ (max)</td> <td>≤Φ18</td> <td>0.34</td> <td>0.24</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.09</td> <td>0.08</td> <td>0.20</td> <td>0.24</td> <td>0.24</td> </tr> <tr> <td>≥Φ20</td> <td>0.28</td> <td>0.24</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.09</td> <td>0.08</td> <td>0.15</td> <td>0.15</td> <td>0.20</td> </tr> </tbody> </table> <p>▲for capacitance of more than 1000μF, add 0.02 for every increase of 1000μF. ▲(at 20°C, 120Hz)</p>		WV(V)	6.3	10	16	25	35	50	63	100	160to250V	315to400V	450	Tan δ (max)	≤Φ18	0.34	0.24	0.20	0.16	0.14	0.12	0.09	0.08	0.20	0.24	0.24	≥Φ20	0.28	0.24	0.20	0.16	0.14	0.12	0.09	0.08	0.15	0.15	0.20													
WV(V)	6.3	10	16	25	35	50	63	100	160to250V	315to400V	450																																									
Tan δ (max)	≤Φ18	0.34	0.24	0.20	0.16	0.14	0.12	0.09	0.08	0.20	0.24	0.24																																								
	≥Φ20	0.28	0.24	0.20	0.16	0.14	0.12	0.09	0.08	0.15	0.15	0.20																																								
Low Temperature Characteristics	<table border="1"> <thead> <tr> <th>Rated Voltage (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> <th>160to250V</th> <th>315to400V</th> <th>450</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Z-25°C/Z+20°C</td> <td>≤Φ18</td> <td>5</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>3</td> <td>6</td> <td>6</td> </tr> <tr> <td>≥Φ20</td> <td>5</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>4</td> <td>6</td> <td>6</td> </tr> <tr> <td>Z-40°C/Z+20°C</td> <td>≤Φ18</td> <td>12</td> <td>10</td> <td>8</td> <td>5</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>4</td> <td>6</td> <td>-</td> </tr> </tbody> </table> <p>(at 120Hz)</p>		Rated Voltage (V)	6.3	10	16	25	35	50	63	100	160to250V	315to400V	450	Z-25°C/Z+20°C	≤Φ18	5	4	3	2	2	2	2	2	3	6	6	≥Φ20	5	4	3	2	2	2	2	2	4	6	6	Z-40°C/Z+20°C	≤Φ18	12	10	8	5	4	3	3	3	4	6	-
	Rated Voltage (V)	6.3	10	16	25	35	50	63	100	160to250V	315to400V	450																																								
	Z-25°C/Z+20°C	≤Φ18	5	4	3	2	2	2	2	2	3	6	6																																							
≥Φ20		5	4	3	2	2	2	2	2	4	6	6																																								
Z-40°C/Z+20°C	≤Φ18	12	10	8	5	4	3	3	3	4	6	-																																								
Load Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated rippled current is applied for 2000 hours at 85°C																																																			
	Capacitance change	Within ±20%initial value																																																		
	D.F. (Tan δ)	Not more than200% of specified value																																																		
	leakage current	Not more than specified value																																																		
Shelf Life	After leaving capacitors under no load at 85° C for 1000 hours, they meet the characteristic requirements listed at right.																																																			
	Capacitance change	Within ±20%initial value																																																		
	D.F. (Tan δ)	Not more than 200% of specified value																																																		
	leakage current	Not more than 200% of specified value																																																		

◆ DIMENSIONS(mm)



ΦD	5	6.3	8	10	13	16	18	20	22	25
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5	7.5	10.0	12.5
Φd	0.5	0.5	0.5	0.6	0.6	0.8	0.8	0.8	0.8	1.0
a	1.5	1.5	1.5	1.5	1.5	2.0	2.0	2.0	2.5	2.5

RS 系列
SERIES

◆ RATED RIPPLE CURRENT MULTIPLIERS

◆ Frequency Coefficient

(Φ5 ~ Φ18)

Frequency Cap (μF)	50Hz	120Hz	300Hz	1KHz	10KHz	100KHz
0.1~8.2	0.65	1.00	1.35	1.75	2.3	2.50
10~82	0.75	1.00	1.25	1.50	1.75	1.80
100~820	0.80	1.00	1.15	1.30	1.40	1.50
1000~	0.85	1.00	1.03	1.05	1.08	1.08

(Φ20 ~ Φ25)

Frequency Rated Voltage (V)	50Hz	120Hz	300Hz	1KHz	10KHz	100KHz
6.3~50	0.95	1.00	1.03	1.05	1.08	1.08
63~100	0.92	1.00	1.07	1.13	1.19	1.20
160~250	0.81	1.00	1.17	1.32	1.45	1.50
315~450	0.77	1.00	1.16	1.30	1.41	1.43

RS系列 SERIES

◆ STANDARD RATINGS

Ur (Surge Voltage) Code	Rated Capacitance	Rated Ripple Current 85°C120Hz	Size $\phi D \times L$
(V)	(μF)	(mA rms)	(mm)
16V (20) 1C	10	50	5×11
	22	75	5×11
	33	91	5×11
	47	109	5×11
	100	160	5×11
	220	260	6.3×12
	330	370	8×12
	470	440	8×12
	1000	785	10×16
	2200	1295	13×20
	3300	1655	13×25
	4700	2090	16×25
	4700	1960	20×20
	6800	2520	16×31.5
	6800	2330	20×25
	8200	2500	20×30
	10000	2920	18×35.5
	10000	2720	20×35
	10000	2660	22×30
	25V (32) 1E	4.7	36
10		53	5×11
22		78	5×11
33		96	5×11
47		115	5×11
100		190	6.3×12
220		330	8×12
330		440	8×12
470		545	10×12.5
1000		955	10×20
2200		1540	13×25
3300		1975	16×25
3300		1850	20×20
4700		2420	16×31.5
4700		2420	20×25
5600		2430	20×30
6800		2880	18×35.5
6800		2680	20×35
6800		2510	22×30
8200		2810	20×40
8200	2810	22×35	
10000	3240	22×40	
12000	3240	22×40	
15000	3610	25×40	

Ur (Surge Voltage) Code	Rated Capacitance	Rated Ripple Current 85°C120Hz	Size $\phi D \times L$
(V)	(μF)	(mA rms)	(mm)
16V (20) 1C	10	50	5×11
	22	75	5×11
	33	91	5×11
	47	109	5×11
	100	160	5×11
	220	260	6.3×12
	330	370	8×12
	470	440	8×12
	1000	785	10×16
	2200	1295	13×20
	3300	1655	13×25
	4700	2090	16×25
	4700	1960	20×20
	6800	2520	16×31.5
	6800	2330	20×25
	8200	2500	20×30
	10000	2920	18×35.5
	10000	2720	20×35
	10000	2660	22×30
	25V (32) 1E	4.7	36
10		53	5×11
22		78	5×11
33		96	5×11
47		115	5×11
100		190	6.3×12
220		330	8×12
330		440	8×12
470		545	10×12.5
1000		955	10×20
2200		1540	13×25
3300		1975	16×25
3300		1850	20×20
4700		2420	16×31.5
4700		2420	20×25
5600		2430	20×30
6800		2880	18×35.5
6800		2680	20×35
6800		2510	22×30
8200		2810	20×40
8200	2810	22×35	
10000	3240	22×40	
12000	3240	22×40	
15000	3610	25×40	



◆ STANDARD RATINGS

UR (Surge Voltage) Code	Rated Capacitance	Rated Ripple Current 85°C120Hz	Size $\Phi D \times L$
(V)	(μF)	(mA rms)	(mm)
35V (44) 1V	4.7	41	5×11
	10	59	5×11
	22	88	5×11
	33	108	5×11
	47	130	5×11
	100	210	6.3×12
	220	385	8×12
	330	490	10×12.5
	470	645	10×16
	1000	1145	13×20
	2200	1785	16×25
	2200	1670	20×20
	3300	2275	16×35.5
	3300	2050	20×25
	3900	2310	20×30
	4700	2700	18×35.5
	4700	2510	20×35
	4700	2380	22×30
	5600	2690	20×40
	5600	2690	22×35
6800	3090	22×40	
10000	3480	25×40	
50V (63) 1H	0.1	1.3	5×11
	0.22	2.9	5×11
	0.33	4.3	5×11
	0.47	6.2	5×11
	1	17	5×11
	2.2	28	5×11
	3.3	35	5×11
	4.7	41	5×11
	10	60	5×11
	22	95	5×11
	33	125	5×11
	47	155	6.3×12
	100	260	8×12
	220	430	10×12.5
	330	585	10×16
	470	755	10×20
	1000	1340	13×25
	1500	1570	20×20
	2200	2075	16×35.5
	2200	1880	20×25
	2700	2150	20×30
	3300	2500	18×35.5
	3300	2420	20×35
	3300	2420	22×30
	3900	2590	20×40
	3900	2590	22×35
	4700	2960	22×40
	6800	3360	25×40

UR (Surge Voltage) Code	Rated Capacitance	Rated Ripple Current 85°C120Hz	Size $\Phi D \times L$	
(V)	(μF)	(mA rms)	(mm)	
63 (79) 1J	10	65	5×11	
	22	100	5×11	
	33	140	6.3×12	
	47	170	6.3×12	
	100	300	10×12.5	
	220	490	10×16	
	330	710	10×20	
	470	900	13×20	
	820	1370	20×20	
	1000	1300	16×25	
	1000	1600	20×25	
	1500	1850	20×30	
	2200	2330	20×35	
	2200	2190	22×30	
	2700	2640	20×40	
	3300	2810	22×40	
	3900	3100	25×40	
	100V (125) 2A	0.1	2.1	5×11
		0.22	4.7	5×11
		0.33	7.0	5×11
0.47		10	5×11	
1		21	5×11	
2.2		30	5×11	
3.3		40	5×11	
4.7		45	5×11	
10		75	6.3×12	
22		130	8×12	
33		180	8×12	
47		230	10×12.5	
100		370	10×20	
220		620	13×25	
330		760	13×25	
330		870	20×20	
470		1000	16×25	
680		1360	20×30	
820	1540	22×30		
1000	1380	18×40		
1000	1720	20×35		
1200	1980	22×40		
1800	2490	25×40		
160V (200) 2C	3.3	40	6.3×12	
	4.7	48	6.3×12	
	10	94	10×12.5	
	22	170	10×20	
	33	205	10×20	
	47	270	13×20	
	100	430	13×25	
	220	760	16×31.5	
	220	730	20×25	
	330	995	18×35.5	
	330	920	20×30	



◆ STANDARD RATINGS

UR (Surge Voltage) Code	Rated Capacitance	Rated Ripple Current 85°C120Hz	Size $\phi D \times L$
(V)	(μF)	(mA rms)	(mm)
160V (200) 2C	390	1160	20×35
	390	1160	22×30
	470	1340	20×40
	470	1340	22×35
	560	1470	22×40
	680	1570	25×40
200V (250) 2D	3.3	40	6.3×12
	4.7	55	8×12
	10	94	10×12.5
	22	170	10×20
	33	205	10×20
	47	270	13×20
	100	475	16×25
	100	460	20×20
	180	660	20×25
	220	810	18×35.5
	220	750	20×30
	270	830	20×30
	330	1070	20×35
	330	1070	22×30
	390	1190	20×40
	390	1160	22×30
	470	1350	22×40
	560	1430	22×40
680	1620	25×40	
250V (300) 2E	2.2	32	6.3×12
	3.3	46	8×12
	4.7	55	8×12
	10	105	10×16
	22	170	10×20
	33	230	13×20
	47	295	13×25
	82	420	20×20
	100	515	16×31.5
	100	490	20×25
	120	530	20×25
	180	680	20×30
	220	825	18×40
	220	780	20×35
	220	820	22×30
	270	880	20×40
	270	880	22×35
	330	1060	22×40
390	1200	25×40	
315V (350) 2F	47	310	20×20
	68	400	20×25
	82	440	20×25
	100	500	20×30
	120	550	20×30
	180	720	20×40
	180	720	22×35
	220	810	22×40
270	920	25×40	

UR (Surge Voltage) Code	Rated Capacitance	Rated Ripple Current 85°C120Hz	Size $\phi D \times L$
(V)	(μF)	(mA rms)	(mm)
350V (400) 2V	0.47	15	6.3×12
	1	22	6.3×12
	2.2	38	8×12
	3.3	46	8×12
	4.7	65	10×12.5
	10	115	10×20
	22	185	13×20
	33	275	16×25
	47	325	16×25
	47	310	20×20
	68	400	20×25
	100	530	18×31.5
	100	500	20×30
	120	560	20×35
220	890	25×40	
400 (450) 2G	1	22	6.3×12
	2.2	38	8×12
	3.3	54	10×12.5
	4.7	71	10×16
	10	115	10×20
	22	205	13×25
	33	275	16×25
	33	260	20×20
	47	350	16×31.5
	56	350	20×25
	68	420	20×30
	100	520	20×35
	100	520	22×30
	120	580	20×40
120	580	22×35	
180	790	25×40	
450V (500) 2W	2.2	32	10×12.5
	3.3	44	10×16
	4.7	56	10×20
	10	91	13×20
	22	165	16×25
	22	180	20×20
	33	215	16×31.5
	33	240	20×25
	47	265	16×35.5
	47	290	20×25
	56	320	20×30
	68	370	20×35
	68	370	22×30
	82	420	20×40
82	420	22×35	
100	470	22×40	
120	520	25×40	

Customer products are available on request