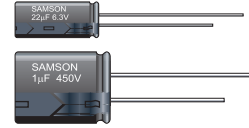


SRL Series

Long Life Assurance(長壽命), High Ripple Current(高紋波)

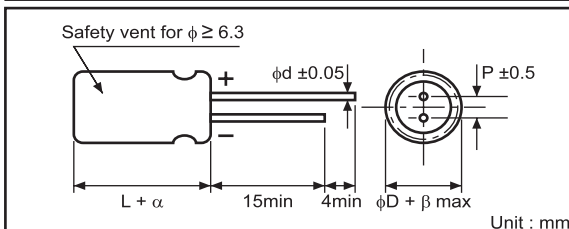
FEATURES

1. High temperature and long load life, 3000~8000 hours.



SPECIFICATIONS																												
Item	Performance Characteristics																											
Operating Temperature Range	-40 to +105°C																											
Rated Working Voltage Range	6.3 to 100V																											
Nominal Capacitance Range	0.1 to 22000µF																											
Capacitance Tolerance	±20% (120Hz, +20°C)																											
Leakage Current	$I \leq 0.03CV$ or $4(\mu A)$ whichever is greater measured after 1 minute application of rated working voltage at +20°C																											
Dissipation Factor tan δ (120Hz, +20°C)	<table border="1"> <tr> <td>Working Voltage (V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> </tr> <tr> <td>tan δ (max.)</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>0.10</td> <td>0.08</td> </tr> </table>	Working Voltage (V)	6.3	10	16	25	35	50	63	100	tan δ (max.)	0.28	0.24	0.20	0.16	0.14	0.12	0.10	0.08									
	Working Voltage (V)	6.3	10	16	25	35	50	63	100																			
tan δ (max.)	0.28	0.24	0.20	0.16	0.14	0.12	0.10	0.08																				
	<table border="1"> <tr> <td>Working Voltage (V)</td> <td>160</td> <td>200</td> <td>250</td> <td>315</td> <td>350</td> <td>400</td> <td>450</td> <td></td> </tr> <tr> <td>tan δ (max.)</td> <td>0.20</td> <td>0.20</td> <td>0.20</td> <td>0.25</td> <td>0.25</td> <td>0.25</td> <td>0.25</td> <td></td> </tr> </table> <p>For capacitance value > 1000µF, add 0.02 per another 1000µF</p>	Working Voltage (V)	160	200	250	315	350	400	450		tan δ (max.)	0.20	0.20	0.20	0.25	0.25	0.25	0.25										
Working Voltage (V)	160	200	250	315	350	400	450																					
tan δ (max.)	0.20	0.20	0.20	0.25	0.25	0.25	0.25																					
Low Temperature Characteristics	Impedance ratio max. at 120Hz																											
	<table border="1"> <tr> <td>Working Voltage (V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> </tr> <tr> <td>Z-25°C / Z+20°C</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> </tr> <tr> <td>Z-40°C / Z+20°C</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> </tr> </table>	Working Voltage (V)	6.3	10	16	25	35	50	63	100	Z-25°C / Z+20°C	5	4	3	2	2	2	2	2	Z-40°C / Z+20°C	12	10	8	5	4	3	3	3
	Working Voltage (V)	6.3	10	16	25	35	50	63	100																			
	Z-25°C / Z+20°C	5	4	3	2	2	2	2	2																			
Z-40°C / Z+20°C	12	10	8	5	4	3	3	3																				
<table border="1"> <tr> <td>Working Voltage (V)</td> <td>160</td> <td>200</td> <td>250</td> <td>315</td> <td>350</td> <td>400</td> <td>450</td> <td></td> </tr> <tr> <td>Z-25°C / Z+20°C</td> <td>3</td> <td>3</td> <td>4</td> <td>4</td> <td>4</td> <td>6</td> <td>15</td> <td></td> </tr> </table> <p>For capacitance value > 1000µF, Add 0.5 per another 1000µF for Z-25°C / Z+20°C Add 1.0 per another 1000µF for Z-40°C / Z+20°C</p>	Working Voltage (V)	160	200	250	315	350	400	450		Z-25°C / Z+20°C	3	3	4	4	4	6	15											
Working Voltage (V)	160	200	250	315	350	400	450																					
Z-25°C / Z+20°C	3	3	4	4	4	6	15																					
High Temperature Loading	Test conditions Duration : <table border="1"><tr><td>φD</td><td>5 ~ 6.3</td><td>8 ~ 10</td><td>12.5 ~</td></tr><tr><td>Load life</td><td>3000h</td><td>5000h</td><td>8000h</td></tr></table> Ambient temp. : +105°C Applied voltage : Rated DC working voltage	φD	5 ~ 6.3	8 ~ 10	12.5 ~	Load life	3000h	5000h	8000h																			
	φD	5 ~ 6.3	8 ~ 10	12.5 ~																								
Load life	3000h	5000h	8000h																									
Post test requirements at +20°C Leakage current : ≤ Initial specified value Cap. change : within ±25% of initial measured value tan δ : ≤ 200% of initial specified value																												
Shelf Life	Test conditions Duration : 1000 hours Ambient temp. : +105°C Applied voltage : (None)																											
	Post test requirements at +20°C Leakage current : ≤ Initial specified value Cap. change : within ±20% of initial measured value tan δ : ≤ 200% of initial specified value																											
Others	JIS C - 5141 JIS C - 5102																											

CASE SIZE TABLE



φD	5	6.3	8	10	13	16	18	22	
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10.0	
φd	0.5			0.6		0.8			
α	(L < 20) 1.5				(L ≥ 20) 2.0				
β	(D < 20) 0.5				(D ≥ 20) 1.0				

RIPPLE CURRENT MULTIPLIER

Temperature Coefficient					
Temperature(°C)	~ 55	60	70	85	105
Factor	2.23	2.17	2.00	1.75	1.00

Frequency Coefficient							
Rated Voltage(V)	Cap(µF)	Freq.(Hz)	50	120	300	1K	10K ~
			6.3 ~ 100	~ 47	0.75	1.00	1.35
	100 ~ 470	0.80	1.00	1.23	1.34	1.50	
	≥ 560	0.85	1.00	1.10	1.13	1.15	
160 ~ 450	0.47 ~ 220	0.80	1.00	1.25	1.40	1.60	
	≥ 270	0.90	1.00	1.10	1.13	1.15	

SAMSON

SRL Series

Long Life Assurance(長壽命), High Ripple Current(高紋波)

DIMENSIONS

Voltage (Code)		6.3V		10V		16V		25V	
Cap.(μ F)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
4.7	475							5 x 11	18
10	106					5 x 11	24	5 x 11	30
22	226	5 x 11	21	5 x 11	33	5 x 11	45	5 x 11	48
33	336	5 x 11	33	5 x 11	48	5 x 11	54	5 x 11	57
47	476	5 x 11	45	5 x 11	57	5 x 11	66	5 x 11	69
100	107	5 x 11	78	5 x 11	87	6.3 x 11	105	6.3 x 11	111
150	157								
220	227	6.3 x 11	129	6.3 x 11	138	8 x 12	180	8 x 12	192
270	277								
330	337	6.3 x 11	159	8 x 12	198	8 x 12	216	10 x 12.5	252
470	477	8 x 12	216	8 x 12	234	10 x 12.5	282	10 x 16	324
1000	108	10 x 12.5	342	10 x 16	378	10 x 20	474	12.5 x 20	570
2200	228	12.5 x 20	630	12.5 x 20	660	12.5 x 25	810	16 x 25	730
3300	338	12.5 x 20	750	12.5 x 25	840	16 x 25	1020	16 x 30	1170
4700	478	16 x 25	1020	16 x 25	1080	16 x 30	1260	18 x 35	1410
								22 x 30	1410
6800	688	16 x 25	1140	16 x 30	1290	18 x 35	1500	22 x 40	1550
						22 x 30	1480		
10000	109	16 x 30	1350	18 x 35	1500	18 x 40	1580		
				22 x 30	1480	22 x 35	1560		
12000	129	16 x 35	1470	18 x 35	1560	22 x 40	1640		
				22 x 30	1530				
15000	159	18 x 35	1508	18 x 40	1632				
		22 x 31	1590	22 x 35	1600				
18000	189	18 x 40	1650	22 x 40	1710				
		22 x 35	1650						
22000	229	22 x 40	1710						

Maximum Allowable Ripple Current (mA rms) at 105°C 120Hz

Case Size ϕ D x L(mm)

Voltage (Code)		35V		50V		63V		100V	
Cap.(μ F)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
0.1	104			5 x 11	1.1			5 x 11	1.1
0.22	224			5 x 11	2.3			5 x 11	2.3
0.33	334			5 x 11	3.5			5 x 11	3.5
0.47	474			5 x 11	5			5 x 11	5
1	105			5 x 11	10			5 x 11	10
2.2	225			5 x 11	14			5 x 11	18
3.3	335			5 x 11	21			5 x 11	24
4.7	475	5 x 11	21	5 x 11	24	5 x 11	27	5 x 11	27
10	106	5 x 11	33	5 x 11	39	5 x 11	42	6.3 x 11	45
22	226	5 x 11	51	6.3 x 11	57	6.3 x 11	69	8 x 12	78
33	336	5 x 11	63	6.3 x 11	75	8 x 12	84	10 x 12.5	102
47	476	6.3 x 11	84	6.3 x 11	90	8 x 12	114	10 x 16	138
100	107	8 x 12	138	8 x 12	150	10 x 12.5	180	12.5 x 20	240
220	227	10 x 12.5	222	10 x 16	264	10 x 20	294	16 x 25	436
330	337	10 x 16	294	10 x 20	398	12.5 x 20	408	16 x 25	516
470	477	10 x 20	384	12.5 x 20	456	12.5 x 25	528	16 x 30	660
1000	108	12.5 x 25	660	16 x 25	810	18 x 30	930	18 x 40	1010
								22 x 35	1010
2200	228	16 x 30	708	18 x 35	1250	18 x 40	1320		
				22 x 30	1250	22 x 35	1350		
3300	338	18 x 35	1330	22 x 40	1420				
		22 x 30	1330						
4700	478	18 x 40	1490						
		22 x 35	1470						

Maximum Allowable Ripple Current (mA rms) at 105°C 120Hz

Case Size ϕ D x L(mm)

SRL Series

Long Life Assurance(長壽命), High Ripple Current(高紋波)

DIMENSIONS									
Voltage (Code)		160V		200V		250V		315V	
Cap.(μ F)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
0.47	474	6.3 x 11	7.2	6.3 x 11	7.2	6.3 x 11	7.2		
1	105	6.3 x 11	10.2	6.3 x 11	10.2	6.3 x 11	10.2	6.3 x 11	10.2
2.2	225	6.3 x 11	16	6.3 x 11	16	8 x 12	18	8 x 12	18
3.3	335	8 x 12	21	8 x 12	21	10 x 12.5	21	10 x 12.5	21
4.7	475	8 x 12	24	10 x 12.5	27	10 x 12.5	27	10 x 16	45
10	106	10 x 12.5	39	10 x 16	42	10 x 20	42	10 x 20	42
22	226	10 x 20	66	10 x 20	66	12.5 x 25	78	12.5 x 25	72
33	336	12.5 x 20	90	12.5 x 25	96	12.5 x 25	96	16 x 25	90
47	476	12.5 x 25	108	12.5 x 25	108	16 x 25	126	16 x 30	144
100	107	16 x 25	180	16 x 30	198	18 x 35	204	18 x 40	204
						22 x 30	204	22 x 35	204
150	157	16 x 35	252	18 x 35	270	18 x 40	276	22 x 40	270
				22 x 31	270	22 x 35	276		
220	227	18 x 35	306	18 x 40	312	22 x 40	320		
		22 x 30	306	22 x 35	312				
270	277	18 x 40	324	22 x 40	342				
		22 x 35	324						
330	337	22 x 40	360						

Maximum Allowable Ripple Current (mA rms) at 105°C 120Hz

Case Size ϕ D x L(mm)

Voltage (Code)		350V		400V		450V			
Cap.(μ F)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current		
1	105	8 x 12	10.8	8 x 12	10.8	10 x 12.5	11.4		
2.2	225	10 x 12.5	18	10 x 12.5	18	10 x 18	17.4		
3.3	335	10 x 16	21	10 x 18	21	10 x 20	21		
4.7	475	10 x 16	27	10 x 20	27	12.5 x 20	30		
10	106	12.5 x 20	42	13 x 20	42	12.5 x 25	45		
22	226	12.5 x 25	66	16 x 25	66	16 x 30	66		
33	336	16 x 30	84	16 x 30	84	18 x 35	90		
						22 x 30	84		
47	476	18 x 35	132	18 x 35	132	22 x 40	138		
		22 x 30	132	22 x 30	132				
100	107	22 x 40	216						

Maximum Allowable Ripple Current (mA rms) at 105°C 120Hz

Case Size ϕ D x L(mm)