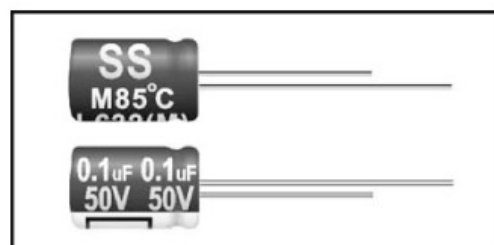


Feature

- 85°C, 1,000 hours assured
- Standard micro miniature size with 5mm height
- RoHS Compliance



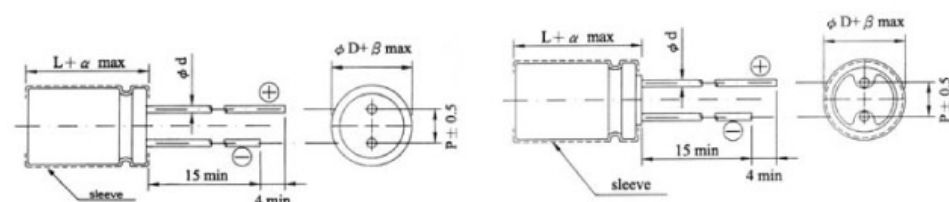
SPECIFICATIONS

Items	Performance																																																			
Operating Temperature Range	-40℃ ~ +85℃																																																			
Capacitance Tolerance	±20% (at 120Hz, 20℃)																																																			
Leakage Current (at 20℃)	I = 0.01CV or 3 (μA) whichever is greater (after 2 minutes) Where, C = rated capacitance in μF V = rated DC working voltage in V																																																			
Dissipation Factor (Tan δ at 120Hz, 20℃)	<table><tr><td>Rated Voltage</td><td>4</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td></tr><tr><td>Tan δ (max)</td><td>0.35</td><td>0.25</td><td>0.20</td><td>0.17</td><td>0.15</td><td>0.13</td><td>0.10</td></tr></table>								Rated Voltage	4	6.3	10	16	25	35	50	Tan δ (max)	0.35	0.25	0.20	0.17	0.15	0.13	0.10																												
Rated Voltage	4	6.3	10	16	25	35	50																																													
Tan δ (max)	0.35	0.25	0.20	0.17	0.15	0.13	0.10																																													
Low Temperature Characteristics (at 120Hz)	Impedance ratio shall not exceed the values given in the table below. <table><tr><td colspan="2">Rated Voltage</td><td>4</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td></tr><tr><td rowspan="2">Impedance Ratio</td><td>Z(-25℃)/Z(+20℃)</td><td>7</td><td>6</td><td>4</td><td>3</td><td>2</td><td>2</td><td>2</td></tr><tr><td>Z(-40℃)/Z(+20℃)</td><td>15</td><td>12</td><td>8</td><td>6</td><td>4</td><td>4</td><td>4</td></tr></table>								Rated Voltage		4	6.3	10	16	25	35	50	Impedance Ratio	Z(-25℃)/Z(+20℃)	7	6	4	3	2	2	2	Z(-40℃)/Z(+20℃)	15	12	8	6	4	4	4																		
Rated Voltage		4	6.3	10	16	25	35	50																																												
Impedance Ratio	Z(-25℃)/Z(+20℃)	7	6	4	3	2	2	2																																												
	Z(-40℃)/Z(+20℃)	15	12	8	6	4	4	4																																												
Load Life Test	<table><tr><td colspan="2">Test Time</td><td colspan="7">1,000 hrs</td></tr><tr><td rowspan="2">Capacitance Change</td><td>4 ~ 6.3V</td><td colspan="7">Within ±30% of initial value</td></tr><tr><td>10 ~ 50V</td><td colspan="7">Within ±25% of initial value</td></tr><tr><td colspan="2">Dissipation Factor</td><td colspan="7">Less than 200% of specified value</td></tr><tr><td colspan="2">Leakage Current</td><td colspan="7">Within specified value</td></tr></table> * The above specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage applied with rated ripple current for 1,000 hrs at 85℃.								Test Time		1,000 hrs							Capacitance Change	4 ~ 6.3V	Within ±30% of initial value							10 ~ 50V	Within ±25% of initial value							Dissipation Factor		Less than 200% of specified value							Leakage Current		Within specified value						
Test Time		1,000 hrs																																																		
Capacitance Change	4 ~ 6.3V	Within ±30% of initial value																																																		
	10 ~ 50V	Within ±25% of initial value																																																		
Dissipation Factor		Less than 200% of specified value																																																		
Leakage Current		Within specified value																																																		
Shelf Life Test	Test time: 500 hrs; other items are the same as those for the load life test.																																																			
Ripple Current & Frequency Multipliers	<table><tr><td colspan="2">Freq.(Hz) Cap.(μF)</td><td>60 (50)</td><td>120</td><td>500</td><td>1K</td><td>10K up</td></tr><tr><td colspan="2">Under 47</td><td>0.75</td><td>1.00</td><td>1.15</td><td>1.34</td><td>1.50</td></tr><tr><td colspan="2">100 to 330</td><td>0.80</td><td>1.00</td><td>1.08</td><td>1.20</td><td>1.30</td></tr></table>								Freq.(Hz) Cap.(μF)		60 (50)	120	500	1K	10K up	Under 47		0.75	1.00	1.15	1.34	1.50	100 to 330		0.80	1.00	1.08	1.20	1.30																							
Freq.(Hz) Cap.(μF)		60 (50)	120	500	1K	10K up																																														
Under 47		0.75	1.00	1.15	1.34	1.50																																														
100 to 330		0.80	1.00	1.08	1.20	1.30																																														

DIAGRAM OF DIMENSIONS

1. φD=3mm

2. φD ≥ 4mm



Unit: mm
LEAD SPACING AND DIAMETER

ϕD	3	4	5	6.3	8
P	1.0	1.5	2.0	2.5	2.5
ϕd	0.4	0.45			
α	1.0				
β	0.5				

DIMENSION & PERMISSIBLE RIPPLE CURRENT

Dimension: φD × L(mm)

Ripple Current: mA/rms at 120 Hz, 85°C

μF	V DC Contents	4V (0G)		6.3V (0J)		10V (1A)		16V (1C)		25V (1E)		35V (1V)		50V (1H)	
		φD×L	mA	φD×L	mA	φD×L	mA	φD×L	mA	φD×L	mA	φD×L	mA	φD×L	mA
0.1	0R1													4×5(3×5)	1(1)
0.22	R22													4×5(3×5)	2(2)
0.33	R33													4×5(3×5)	3(2.8)
0.47	R47													4×5(3×5)	5(4)
1	010													4×5(3×5)	8.7(7)
2.2	2R2											4×5(3×5)	8.7(7)	4×5(3×5)	10(9)
3.3	3R3									4×5(3×5)	11(10)	4×5	12	4×5	13
4.7	4R7							4×5(3×5)	14(11)	4×5	14	4×5	17	5×5	20
10	100					4×5(3×5)	17(13)	4×5	23	5×5	27	5×5	27	6.3×5	31
22	220			4×5(3×5)	22(18)	5×5	30	5×5	35	6.3×5	42	6.3×5	46	6.3×5	46
33	330	4×5	27	4×5	34	5×5	41	5×5	49	6.3×5	52	6.3×5	52	8×5	66
47	470	4×5	34	5×5	37	6.3×5	50	6.3×5	58	6.3×5	58	8×5	72	8×5	80
100	101	5×5	55	6.3×5	62	6.3×5	70	8×5	99	8×5	99				
220	221	6.3×5	74	8×5	104	8×5	120								
330	331	8×5	105	8×5	120										