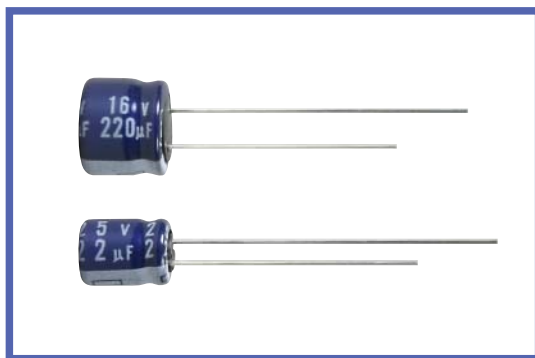


- RoHS compliance.



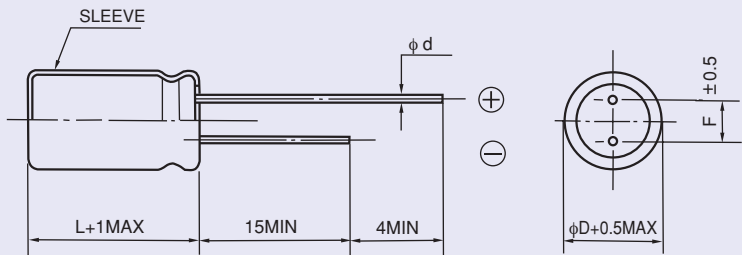
Items	Characteristics																														
Category Temperature Range	-40 ~+85°C																														
Rated Voltage Range	4~63V.DC																														
Capacitance Tolerance	± 20%(20°C,120Hz)																														
Leakage Current(MAX)	I=0.01CV or 3μA whichever is greater. (After 2 minutes application of rated voltage) I=Leakage Current(μA) C=Rated Capacitance(μF) V=Rated Voltage(V)																														
Dissipation Factor(MAX) (tanδ)	<table border="1"> <tr> <td>Rated Voltage (V)</td><td>4</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>(20°C,120Hz)</td></tr> <tr> <td>tanδ</td><td>0.35</td><td>0.24</td><td>0.20</td><td>0.17</td><td>0.15</td><td>0.13</td><td>0.10</td><td>0.10</td><td></td></tr> </table>	Rated Voltage (V)	4	6.3	10	16	25	35	50	63	(20°C,120Hz)	tanδ	0.35	0.24	0.20	0.17	0.15	0.13	0.10	0.10											
Rated Voltage (V)	4	6.3	10	16	25	35	50	63	(20°C,120Hz)																						
tanδ	0.35	0.24	0.20	0.17	0.15	0.13	0.10	0.10																							
Endurance	After applying rated voltage with rated ripple current for 1000 hrs at 85°C, the capacitors shall meet the following requirements. <table border="1"> <tr> <td>Capacitance Change</td><td>Within ± 20% of the initial value.</td></tr> <tr> <td>Dissipation Factor</td><td>Not more than 200% of the specified value.</td></tr> <tr> <td>Leakage Current</td><td>Not more than the specified value.</td></tr> </table>	Capacitance Change	Within ± 20% of the initial value.	Dissipation Factor	Not more than 200% of the specified value.	Leakage Current	Not more than the specified value.																								
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Low Temperature Stability Impedance Ratio(MAX)	<table border="1"> <tr> <td>Rated Voltage (V)</td><td>4</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>(120Hz)</td></tr> <tr> <td>Z(-25°C)/Z(20°C)</td><td>7</td><td>4</td><td>3</td><td>3</td><td>2</td><td>2</td><td>2</td><td>2</td><td></td></tr> <tr> <td>Z(-40°C)/Z(20°C)</td><td>15</td><td>10</td><td>8</td><td>6</td><td>4</td><td>4</td><td>4</td><td>4</td><td></td></tr> </table>	Rated Voltage (V)	4	6.3	10	16	25	35	50	63	(120Hz)	Z(-25°C)/Z(20°C)	7	4	3	3	2	2	2	2		Z(-40°C)/Z(20°C)	15	10	8	6	4	4	4	4	
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Z(-25°C)/Z(20°C)	7	4	3	3	2	2	2	2																							
Z(-40°C)/Z(20°C)	15	10	8	6	4	4	4	4																							

Frequency (Hz)		60(50)	120	500	1k	10k≤
Coefficient	0.1~1μF	0.50	1.0	1.20	1.30	1.50
	2.2~4.7μF	0.65	1.0	1.20	1.30	1.50
	10~47μF	0.8	1.0	1.20	1.30	1.50
	100~470μF	0.8	1.0	1.10	1.15	1.20

	MS7					DxL
Rated Voltage	Series	Rated Capacitance	Capacitance Tolerance	Option	Lead Forming	Case Size

◆ DIMENSIONS

(mm)



ϕD	4	5	6.3	8
ϕd	0.45			
F	1.5	2.0	2.5	3.5

◆ STANDARD SIZE

Size $\phi D \times L$ (mm), Ripple Current (mA r.m.s./85°C, 120Hz)

Cap(μF) \ WV (V.DC)	4 (0G)		6.3 (0J)		10 (1A)		16 (1C)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
10							4×7	28
22			4×7	34	4×7	38	4×7	42
33	4×7	33	4×7	42	4×7	46	5×7	62
47	4×7	39	4×7	50	5×7	66	5×7	73
100	5×7	65	5×7	87	6.3×7	99	6.3×7	110
220	6.3×7	110	6.3×7	133	8×7	165	8×7	145
330	8×7	165	8×7	180	8×7	210		
470	8×7	190						

Cap(μF) \ WV (V.DC)	25 (1E)		35 (1V)		50 (1H)		63 (1J)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
0.1					4×7	1.3	4×7	1.3
0.22					4×7	3.0	4×7	3.0
0.33					4×7	4.4	4×7	4.4
0.47					4×7	6.3	4×7	6.3
1					4×7	12	4×7	12
2.2					4×7	16	4×7	16
3.3			4×7	18	4×7	19	5×7	24
4.7	4×7	21	4×7	22	4×7	24	6.3×7	33
10	4×7	31	5×7	32	5×7	42	6.3×7	45
22	5×7	55	6.3×7	60	6.3×7	64		
33	6.3×7	66	6.3×7	73	8×7	75		
47	6.3×7	80	8×7	95	8×7	85		
100	8×7	115	8×7	115				