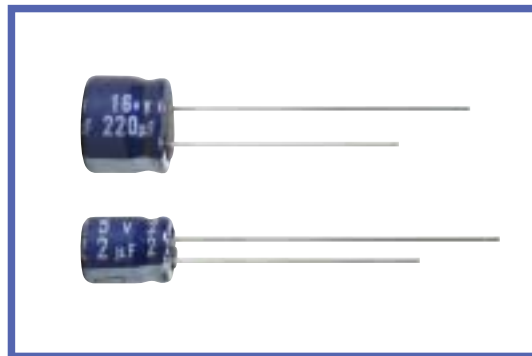


**MS7 SERIES**

85°C 7mm Height.

**◆ FEATURES**

- RoHS compliance.


**◆ SPECIFICATIONS**

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 3 μ A whichever is greater. (After 2 minutes application of rated voltage) I=Leakage Current( μ A)      C=Rated Capacitance( μ F)      V=Rated Voltage(V)																																				
Dissipation Factor(MAX) (tanδ)	<table border="1"> <thead> <tr> <th>Rated Voltage (V)</th> <th>4</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> </tr> </thead> <tbody> <tr> <td>(20°C, 120Hz)</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> </tr> </tbody> </table>	Rated Voltage (V)	4	6.3	10	16	25	35	50	63	(20°C, 120Hz)	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																													
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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"> <tbody> <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> </tbody> </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"> <thead> <tr> <th>Rated Voltage (V)</th> <th>4</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> </tr> </thead> <tbody> <tr> <td>(120Hz)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></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> </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> </tr> </tbody> </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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**◆ MULTIPLIER FOR RIPPLE CURRENT**

Frequency coefficient

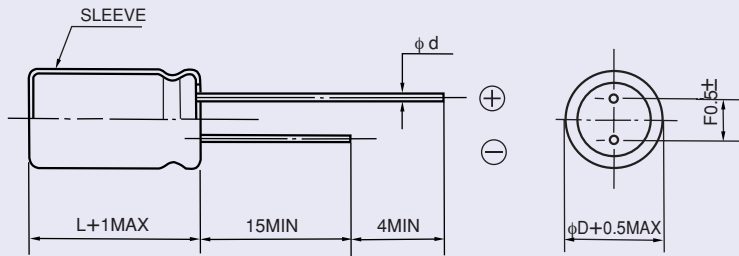
Frequency (Hz)	60(50)	120	500	1k	10k≤
Coefficient					
0.1 ~ 1 μ F	0.50	1.0	1.20	1.30	1.50
2.2 ~ 4.7 μ F	0.65	1.0	1.20	1.30	1.50
10 ~ 47 μ F	0.8	1.0	1.20	1.30	1.50
100 ~ 470 μ F	0.8	1.0	1.10	1.15	1.20

**◆ PART NUMBER**

□□□	MS7	□□□□□	□	□□□	□□	D × L
Rated Voltage	Series	Rated Capacitance	Capacitance Tolerance	Option	Lead Forming	Case Size

◆ DIMENSIONS

(mm)



φ D	4	5	6.3	8
φ d	0.45			
F	1.5	2.0	2.5	3.5

◆ STANDARD SIZE, RATED RIPPLE CURRENT

Size φ D×L(mm), Ripple Current (mA r.m.s./85°C, 120Hz)

WV(V.DC) Cap (μF)	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						

WV(V.DC) Cap (μF)	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				