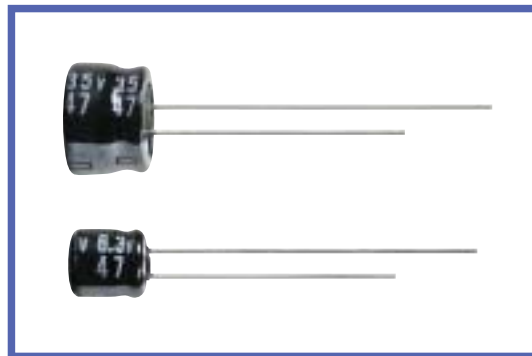


MS5 SERIES

85°C 5mm Height.

◆ FEATURES

- RoHS compliance.


◆ SPECIFICATIONS

Items	Characteristics																																
Category Temperature Range	-40 ~ +85°C																																
Rated Voltage Range	4 ~ 50V.DC																																
Capacitance Tolerance	± 20% (20°C, 120Hz)																																
Leakage Current(MAX)	$I=0.01CV$ or $3 \mu A$ 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) (tan δ)	<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> </tr> </thead> <tbody> <tr> <td>(20°C, 120Hz)</td> <td>0.35</td> <td>0.26</td> <td>0.22</td> <td>0.18</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> </tr> </tbody> </table>	Rated Voltage (V)	4	6.3	10	16	25	35	50	(20°C, 120Hz)	0.35	0.26	0.22	0.18	0.16	0.14	0.12																
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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 ±25% 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 ±25% 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> </tr> </thead> <tbody> <tr> <td>(120Hz)</td> <td colspan="7"></td> </tr> <tr> <td>Z(-25°C) / Z(20°C)</td> <td>7</td> <td>6</td> <td>4</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z(-40°C) / Z(20°C)</td> <td>15</td> <td>12</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>4</td> </tr> </tbody> </table>	Rated Voltage (V)	4	6.3	10	16	25	35	50	(120Hz)								Z(-25°C) / Z(20°C)	7	6	4	4	3	2	2	Z(-40°C) / Z(20°C)	15	12	10	8	6	4	4
Rated Voltage (V)	4	6.3	10	16	25	35	50																										
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◆ MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

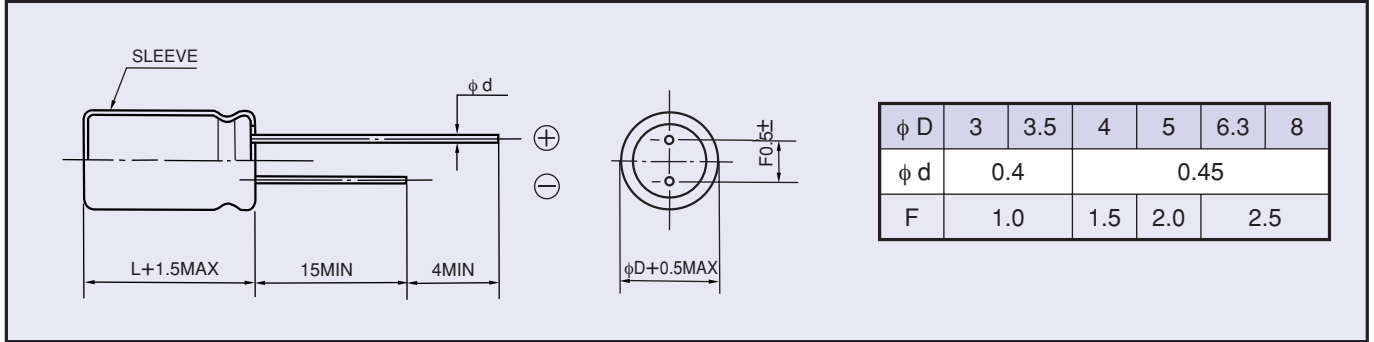
Frequency (Hz)		60(50)	120	500	1k	10k \leq
Coefficient	0.1 ~ 1 μF	0.50	1.0	1.20	1.30	1.50
	1.5 ~ 6.8 μF	0.65	1.0	1.20	1.30	1.50
	10 ~ 68 μF	0.8	1.0	1.20	1.30	1.50
	100 ~ 470 μF	0.8	1.0	1.10	1.15	1.20

◆ PART NUMBER

□□□	MS5	□□□□□	□	□□□	□□	D × L
Rated Voltage	Series	Rated Capacitance	Capacitance Tolerance	Option	Lead Forming	Case Size

◆ DIMENSIONS

(mm)



◆ STANDARD SIZE, RATED RIPPLE CURRENT

Size φ D×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
4.7							● 4 × 5	11
6.8					● 4 × 5	10	* 4 × 5	13
10			● 4 × 5	14	● 4 × 5	16	* 4 × 5	18
15			* 4 × 5	18	4 × 5	22	5 × 5	26
22	● 4 × 5	20	4 × 5	22	5 × 5	30	5 × 5	35
33	* 4 × 5	27	5 × 5	34	5 × 5	45	6.3 × 5	51
47	4 × 5	37	5 × 5	37	6.3 × 5	50	6.3 × 5	65
68	5 × 5	45	6.3 × 5	55	6.3 × 5	59	6.3 × 5	70
100	5 × 5	62	6.3 × 5	62	6.3 × 5	80	8 × 5	92
220	6.3 × 5	74	8 × 5	120	8 × 5	145		
330	8 × 5	145	8 × 5	145				
470	8 × 5	181						

Cap (μF) \ WV(V.DC)	25 (1E)		35 (1V)		50 (1H)	
	Size	Ripple	Size	Ripple	Size	Ripple
0.1					● 4 × 5	1
0.15					● 4 × 5	1.5
0.22					● 4 × 5	2.5
0.33					● 4 × 5	4
0.47					● 4 × 5	6
0.68					● 4 × 5	7
1					● 4 × 5	8.6
1.5					● 4 × 5	8.7
2.2			● 4 × 5	9	* 4 × 5	9.1
3.3	● 4 × 5	11	* 4 × 5	12	4 × 5	13
4.7	* 4 × 5	13	4 × 5	14	5 × 5	20
6.8	4 × 5	19	5 × 5	20	6.3 × 5	26
10	5 × 5	27	5 × 5	27	6.3 × 5	31
15	5 × 5	33	6.3 × 5	35	6.3 × 5	39
22	6.3 × 5	46	6.3 × 5	46	8 × 5	60
33	6.3 × 5	54	8 × 5	65	8 × 5	80
47	6.3 × 5	65	8 × 5	85		
68	8 × 5	90				
100	8 × 5	120				

3mm DIA. is available for marked ●, and 3.5mm DIA. is available for marked * when specified.