

# DM series

## Features

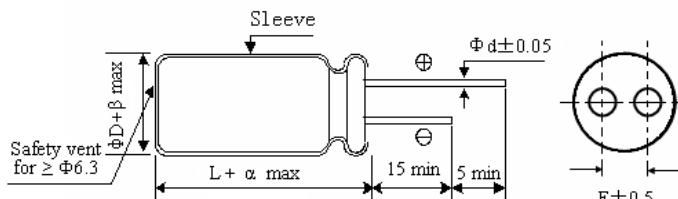
- ◆ Lower water series , 2000 hours at 105°C.
- ◆ Rated working voltage range 6.3 to 100V DC at operation temperature range -40 to +105°C.
- ◆ This series is for communication equipments, switching power supply ,industrial measuring instruments, automotive electric products, etc.
- ◆ RoHS Compliant .



## Specifications

Item	Performance Characteristics														
Temperature Range	-40~+105°C														
Rated Voltage Range	6.3~100Vdc														
Capacitance Range	1.0~22000μF														
Capacitance Tolerance	±20% ( 120Hz, +20°C )														
Leakage Current (+20°C,max.)	$I \leq 0.01CV$ 或 $3(\mu A)$ After 2 minutes, whichever is greater measured with rated working voltage applied														
Dissipation Factor (tgδ) 120Hz, +20°C	Working Voltage(Vdc)	6.3	10	16	25	35	50	63							
	D.F (%) max.	26	22	18	16	14	12	10							
	For capacitance>1000μF, Add 2% per another 1000μF ( 120Hz, +20°C )														
Low Temperature Characteristics (120Hz)	Impedance ratio max.														
	Working Voltage(Vdc)	6.3	10	16	25	35	50	63							
	Z-25°C / Z+20°C	5	4	3	2	2	2	2							
	Z-40°C / Z+20°C	10	8	6	4	3	3	3							
	For capacitance>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														
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 2000 hours at 105°C														
	Capacitance Change	$\leq \pm 20\%$ of the initial value													
	D.F.( tgδ )	$\leq 200\%$ of the initial specified value													
	Leakage Current	$\leq$ The initial specified value													
Shelf Life	After storing the capacitors under no load at 105°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the specified values for the load life characteristics listed above.														
Others	JISC-5101(IEC 60384)														

## Diagram of Frequency Multipliers



## Dimensions

μF	Hz		50	120	300	1K	10K~
	<47	47~470	0.75	1.00	1.35	1.57	2.00
6.3~100WV	>470	0.80	1.00	1.23	1.34	1.50	

ΦD	5	6.3	8	10	13	16	18	
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5	
Φd	0.5	0.5	0.5	0.6	0.6	0.8	0.8	
α	$(L < 20) + 1.5$			$(L \geq 20) + 2.0$				
β	$(D < 20) + 0.5$			$(D \geq 20) + 1.0$				

**DM** series**Standard Ratings**

Voltage	6.3V		10V		16V		25V	
Cap(μF)	Case Size	Ripple Current						
<b>4.7</b>							<b>5×11</b>	26
<b>10</b>					<b>5×11</b>	35	<b>5×11</b>	38
<b>22</b>			<b>5×11</b>	49	<b>5×11</b>	54	<b>5×11</b>	57
<b>33</b>	<b>5×11</b>	54	<b>5×11</b>	60	<b>5×11</b>	64	<b>5×11</b>	75
<b>47</b>	<b>5×11</b>	65	<b>5×11</b>	70	<b>5×11</b>	80	<b>5×11</b>	84
<b>68</b>	<b>5×11</b>	70	<b>5×11</b>	75	<b>5×11</b>	<b>90</b>	<b>5×11</b>	92
<b>100</b>	<b>5×11</b>	95	<b>5×11</b>	105	<b>5×11</b>	125	<b>6.3×11</b>	159
<b>220</b>	<b>5×11</b>	153	<b>5×11</b>	170	<b>6.3×11</b>	213	<b>8×12</b>	285
<b>330</b>	<b>6.3×11</b>	216	<b>6.3×11</b>	239	<b>8×12</b>	315	<b>8×12</b>	340
<b>470</b>	<b>6.3×11</b>	258	<b>6.3×11</b>	285	<b>8×12</b>	366	<b>10×12</b>	471
<b>680</b>	<b>8×12</b>	365	<b>8×12</b>	408	<b>10×12</b>	480	<b>10×17</b>	620
<b>1000</b>	<b>8×12</b>	443	<b>10×12</b>	571	<b>10×15</b>	680	<b>10×20</b>	821
<b>2200</b>	<b>10×17</b>	740	<b>10×20</b>	886	<b>13×20</b>	1108	<b>13×25</b>	1314
<b>3300</b>	<b>10×20</b>	1032	<b>13×20</b>	1205	<b>13×25</b>	1389	<b>16×25</b>	1646
<b>4700</b>	<b>13×20</b>	1280	<b>13×25</b>	1492	<b>16×25</b>	1740	<b>16×30</b>	2012
<b>6800</b>	<b>13×25</b>	1554	<b>16×25</b>	1824	<b>16×30</b>	2081	<b>16×35</b>	2308
<b>10000</b>	<b>16×25</b>	1897	<b>16×30</b>	1980	<b>16×35</b>	2379	<b>18×35</b>	2500
<b>22000</b>	<b>18×35</b>	2400	<b>18×40</b>	2407				

Voltage	35V		50V		63V		100V	
Cap(μF)	Case Size	Ripple Current						
<b>1.0</b>			<b>5×11</b>	13	<b>5×11</b>	<b>16</b>	<b>5×11</b>	16
<b>2.2</b>			<b>5×11</b>	20	<b>5×11</b>	<b>23</b>	<b>5×11</b>	23
<b>3.3</b>			<b>5×11</b>	30	<b>5×11</b>	<b>34</b>	<b>5×11</b>	34
<b>4.7</b>	<b>5×11</b>	28	<b>5×11</b>	37	<b>5×11</b>	40	<b>5×11</b>	40
<b>10</b>	<b>5×11</b>	41	<b>5×11</b>	54	<b>5×11</b>	59	<b>6.3×11</b>	61
<b>22</b>	<b>5×11</b>	67	<b>5×11</b>	79	<b>5×11</b>	79	<b>6.3×12</b>	92
<b>33</b>	<b>5×11</b>	80	<b>5×11</b>	101	<b>6.3×11</b>	122	<b>8×12</b>	144
<b>47</b>	<b>5×11</b>	101	<b>6.3×11</b>	133	<b>6.3×11</b>	146	<b>10×12</b>	199
<b>100</b>	<b>6.3×11</b>	168	<b>8×12</b>	229	<b>10×12</b>	251	<b>10×20</b>	349
<b>220</b>	<b>8×12</b>	294	<b>10×15</b>	509	<b>10×20</b>	504	<b>13×25</b>	662
<b>330</b>	<b>10×12</b>	419	<b>10×17</b>	589	<b>13×20</b>	688	<b>13×25</b>	800
<b>470</b>	<b>10×17</b>	547	<b>10×20</b>	707	<b>13×20</b>	810	<b>16×25</b>	990
<b>680</b>	<b>10×20</b>	682	<b>13×20</b>	923	<b>13×25</b>	1160	<b>16×30</b>	1289
<b>1000</b>	<b>13×20</b>	1023	<b>13×25</b>	1287	<b>16×25</b>	1448	<b>18×40</b>	2020
<b>2200</b>	<b>16×25</b>	1497	<b>16×35</b>	1884	<b>18×35</b>	1781		
<b>3300</b>	<b>16×30</b>	1808	<b>18×35</b>	2167				
<b>4700</b>	<b>18×35</b>	2335						
<b>6800</b>	<b>18×40</b>	2400						

Max Allowable Ripple Current (mA, rms) at 105°C 120Hz, Case Size ΦD×L(mm).

Above size is the standard size for our product. If you need special size please contact our sales offices.