



Aluminum Electrolytic Capacitors **MR** Series

Features

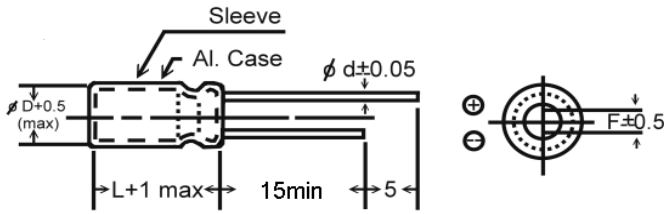
- 105°C with 7mm height

Specification

Items	Performance																									
Capacitance Tolerance	±20 % (at 120Hz, 25 °C)																									
Rated Voltage Range	4 to 50 VDC																									
Capacitance Range	0.47 to 470 uF																									
Operating Temperature Range	-40 to + 105°C																									
Leakage Current (at 25°C)	I ≤ 0.01 CV or 3 (uA), whichever is greater.																									
	After 2 minutes application of working voltage. I= Leakage current (uA), C= Rated capacitance (uF), V= Rated voltage (V)																									
Dissipation Factor (Tan δ at 120Hz, 25°C)	Rate Voltage	4	6.3	10	16	25	35	50																		
	Tan δ (max)	0.35	0.24	0.2	0.17	0.15	0.12	0.10																		
Low Temperature characteristics (at 120Hz)	Impedance ration max.																									
	Rate Voltage	4	6.3	10	16	25	35	50																		
	-25°C/25°C	7	4	3	2	2	2	2																		
	-40°C/25°C	15	10	8	6	4	3	3																		
Load Life	After 1000 hours application of W.V. at 105°C. the capacitor shall meet the following limits.																									
	Capacitance change	: ≤ ±25% of initial value																								
	Dissipation factor	: ≤ 200% of initial specified value																								
	Leakage Current	: ≤ Initial specified value																								
Shelf Life	After storage for 1000 hours at 105°C, with no voltage applied and being stabilixed at + 25°C, Capacitor shall meet the limit specified in load life.																									
Ripple Current & Frequency Multipliers	<table border="1"> <thead> <tr> <th>Freq.(Hz) \ Cap.(uF)</th> <th>60 (50)</th> <th>120</th> <th>500</th> <th>1K</th> <th>10Kup</th> </tr> </thead> <tbody> <tr> <td>Under 47</td> <td>0.70</td> <td>1.00</td> <td>1.20</td> <td>1.30</td> <td>1.45</td> </tr> <tr> <td>100 to 470</td> <td>0.80</td> <td>1.00</td> <td>1.10</td> <td>1.15</td> <td>1.20</td> </tr> </tbody> </table>								Freq.(Hz) \ Cap.(uF)	60 (50)	120	500	1K	10Kup	Under 47	0.70	1.00	1.20	1.30	1.45	100 to 470	0.80	1.00	1.10	1.15	1.20
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MR Series



D	4	5	6.3	8
F	1.5	2.0	2.5	3.5
d	0.45			0.5

Dimension : $\phi D \times L$ (mm)

Ripple Current : mA/rms at 120Hz, 105°C

DIMENSION & PERMISSIBLE RIPPLE CURRENT

uF \ VDC	4V		6.3V		10V		16V		25V		35V		50V	
	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA
0.1													4x7	1
0.22													4x7	1
0.33													4x7	2
0.47													4x7	4
1													4x7	7
2.2													4x7	15
3.3													4x7	19
4.7													4x7	20
10									4x7	25	5x7	27	5x7	28
22							4x7	30	5x7	35	6.3x7	40	6.3x7	45
33					4x7	35	5x7	35	6.3x7	40	6.3x7	46	8x9	52
47					4x7	40	5x7	50	6.3x7	60	6.3x7	65	8x9	68
100			5x7	60	5x7	80	6.3x7	85	6.3x7 8x7 8x9	80 90	8x9	92		
220			6.3x7	110	6.3x7	115	8x7	120	8x9	120				
330			8x7	120	8x7 8x9	140	8x7	140						
470	8x7	120	8x7 8x9	120	8x9	140	8x9	140						