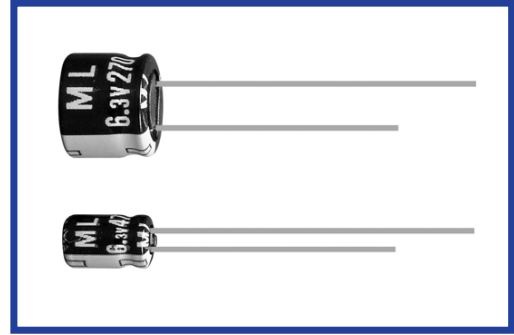


ML SERIES

105°C Long Life, 5mm~9mm Height.

◆FEATURES

- Load Life : 105°C 3000~5000 hours.
- RoHS compliance.



◆SPECIFICATIONS

Items	Characteristics																								
Category Temperature Range	-40~+105°C																								
Rated Voltage Range	6.3~50V.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) $I=(\mu A)$ Leakage Current $C=(\mu F)$ Rated Capacitance $V=(V)$ Rated Voltage																								
(tanδ) Dissipation Factor(MAX)	<table border="1"> <tr> <td>Rated Voltage</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>(20°C, 120Hz)</td> </tr> <tr> <td>tanδ</td> <td>0.40</td> <td>0.35</td> <td>0.30</td> <td>0.25</td> <td>0.20</td> <td>0.20</td> <td></td> </tr> </table>	Rated Voltage	6.3	10	16	25	35	50	(20°C, 120Hz)	tanδ	0.40	0.35	0.30	0.25	0.20	0.20									
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tanδ	0.40	0.35	0.30	0.25	0.20	0.20																			
Endurance	<p>After life test with rated ripple current at conditions stated in the table below, the capacitors shall meet the following requirements.</p> <table border="1"> <tr> <td>Capacitance Change</td> <td>Within ±30% of the initial value.</td> <td>Case Size</td> <td>(hrs) Life Time</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 300% of the specified value.</td> <td>L=5mm</td> <td>3000</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value.</td> <td>L≥7mm</td> <td>5000</td> </tr> </table>	Capacitance Change	Within ±30% of the initial value.	Case Size	(hrs) Life Time	Dissipation Factor	Not more than 300% of the specified value.	L=5mm	3000	Leakage Current	Not more than the specified value.	L≥7mm	5000												
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Low Temperature Stability Impedance Ratio(MAX)	<table border="1"> <tr> <td>Rated Voltage</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>(120Hz)</td> </tr> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>6</td> <td>4</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td></td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>12</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>4</td> <td></td> </tr> </table>	Rated Voltage	6.3	10	16	25	35	50	(120Hz)	Z(-25°C)/Z(20°C)	6	4	4	3	2	2		Z(-40°C)/Z(20°C)	12	10	8	6	4	4	
Rated Voltage	6.3	10	16	25	35	50	(120Hz)																		
Z(-25°C)/Z(20°C)	6	4	4	3	2	2																			
Z(-40°C)/Z(20°C)	12	10	8	6	4	4																			

◆MULTIPLIER FOR RIPPLE CURRENT

Frequency Coefficient

(Hz) Frequency		60(50)	120	500	1k	10k≤
Coefficient	1μF	0.50	1.0	1.20	1.30	1.50
	2.2~6.8μF	0.65	1.0	1.20	1.30	1.50
	10~82μF	0.80	1.0	1.20	1.30	1.50
	100~1000μF	0.80	1.0	1.10	1.15	1.20

◆OPTION

	Code
PET Sleeve	EFC

◆PART NUMBER

ML

M

DXL

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

◆ DIMENSIONS

(mm)

ϕD	4	5	6.3	8×5	8×7	8×7.5	8×9	10
ϕd	0.45						0.6	
F	1.5	2.0	2.5		3.5		5.0	
α	L=7 : $\alpha=1.0$ L=5 : $\alpha=1.5$		1.5		1.0		2.0	

◆ STANDARD SIZE

Size $\phi D \times L$ (mm), Ripple Current (mA r.m.s./105°C, 120Hz)

Cap(μF)	WV (V.DC)	6.3 (0J)		10 (1A)		16 (1C)		25 (1E)		35 (1V)		50 (1H)	
		Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
1												4×5	8
2.2												4×5	11
3.3												4×5	14
4.7												4×7	23
6.8										4×5	17	5×5	25
10								4×5	18	4×7	28	5×7	30
12										5×5	34	6.3×5	37
15								4×7	35				
18						4×5	20			5×7	48	6.3×7	50
22				4×5	22	4×7	40	5×5	42			8×5	62
27		4×5	25					5×7	57	6.3×5	58		
33				4×7	43	5×5	45					8×7	75
39						5×7	65			6.3×7	76		
47		4×7	47	5×5	48			6.3×5	65	8×5	80		
56		5×5	50	5×7	68			6.3×7	85	8×7	105	8×7.5	115
68						6.3×5	70						
82		5×7	75					8×5	100			8×9	160
100				6.3×5	75	6.3×7	95	8×7	112	8×7.5	125		
120		6.3×5	80	6.3×7	100	8×5	110					10×9	315
150						8×7	125	8×7.5	140	8×9	180		
180		6.3×7	110	8×5	120								
220		8×5	125	8×7	160	8×7.5	170	8×9	190	10×9	360		
270		8×7	165										
330				8×7.5	180	8×9	195	10×9	450				
470		8×7.5	190	8×9	210	10×9	460						
560		8×9	230										
680				10×9	470								
1000		10×9	480										