

MLV series

Permissible Spike test

RoHS Compliant

- 105°C 3,000Hrs assured.
- Permissible Spike test
- For SMPS, Inverter
- RoHS compliant
- Halogen-free capacitors are also available.

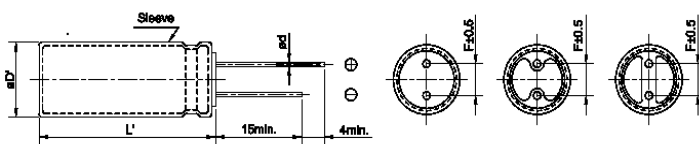


Specifications

Item	Characteristics						
Rated Voltage Range	450 ~ 500 Vdc						
Operating Temperature Range	-25 ~ +105°C						
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)						
Leakage Current	I=0.01CV+40(µA) at CV ≤ 1,000, I=0.03CV+100(µA) at CV > 1,000 (at 20°C, 1min) I=0.03CV+15(µA) at CV ≤ 1,000, I=0.02CV+25(µA) at CV > 1,000 (at 20°C, 5min) Where, I:Max. Leakage current(µA), C:Nominal capacitance(µF), V:Rated voltage(Vdc)						
Dissipation Factor(Tanδ)	<table border="1"> <tr> <td>Rated voltage (Vdc)</td> <td>450~500</td> </tr> <tr> <td>Tanδ (max.)</td> <td>0.24</td> </tr> </table> (at 20°C, 120Hz)	Rated voltage (Vdc)	450~500	Tanδ (max.)	0.24		
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Temperature characteristics (Max,impedance ratio)	<table border="1"> <tr> <td>Rated voltage (Vdc)</td> <td>450~500</td> </tr> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>6</td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>-</td> </tr> </table> (at 120Hz)	Rated voltage (Vdc)	450~500	Z(-25°C)/Z(20°C)	6	Z(-40°C)/Z(20°C)	-
Rated voltage (Vdc)	450~500						
Z(-25°C)/Z(20°C)	6						
Z(-40°C)/Z(20°C)	-						
Load life	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for specified life times at 105°C 3,000hrs. Capacitance change ≤±20%of the initial value Tan δ ≤200% of the initial specified value Leakage current ≤The initial specified value						
Shelf life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 105°C without voltage applied. The rated voltage shall be applied to the capacitors for a minimum of 30 minutes at least 24 hours and not more than 48 hours before the measurements. Capacitance change ≤±20% of the initial value Tanδ ≤200% of the initial specified value Leakage current ≤500%The initial specified value						

Dimensions

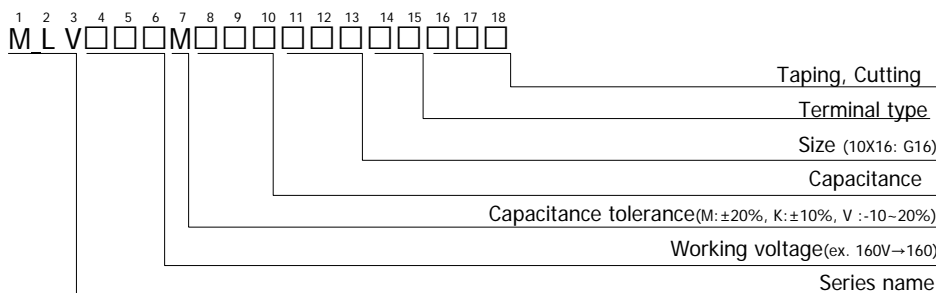
Unit(mm)



ØD	8	10	12.5	16	18	20	22
Ød	0.5 0.6	0.6	0.6	0.8	0.8	0.8	0.8
F	3.5	5.0	5.0	7.5	7.5	7.5	10.0
ØD'	ØD+0.5 max.						
L'	L+1.5 max		L+2.0 max				

- Printed white color letter on PET brown sleeve

Code numbering system



Ø8	F
Ø10	G
Ø12.5	X
Ø16	J
Ø18	K
Ø20	L
Ø22	M

MLV series

Standard Ratings Note1) Ripple current = mArms/105°C, 120Hz

WV (Vdc)	Cap (uF)	Size ØxL (mm)	Tan δ	Ripple ¹⁾	Code No
450	4.7	8 x 20	0.24	75	MLV450□4R7F20CS□□□
	6.8	10 x 16	0.24	95	MLV450□6R8G16CS□□□
	8.2	10 x 16	0.24	116	MLV450□8R2G16CS□□□
	10	10 x 20	0.24	128	MLV450□100G20CS□□□
	15	10 x 25	0.24	176	MLV450□150G25CS□□□
	22	10 x 33	0.24	204	MLV450□220G33CS□□□
	27	12.5 x 25	0.24	247	MLV450□270X25CS□□□
	33	12.5 x 30	0.24	317	MLV450□330X30CS□□□
		16 x 25	0.24	323	MLV450□330J25CS□□□
	47	10 x 50	0.24	380	MLV450□470G50CS□□□
		12.5 x 40	0.24	385	MLV450□470X40CS□□□
		16 x 25	0.24	350	MLV450□470J25CS□□□
	68	18 x 25	0.24	475	MLV450□680K25CS□□□
	82	12.5 x 50	0.24	637	MLV450□820X50CS□□□
		18 x 31.5	0.24	618	MLV450□820K32CS□□□
	100	12.5 x 60	0.24	713	MLV450□101X60CS□□□
		18 x 35.5	0.24	665	MLV450□101K36CS□□□
	120	18 x 40	0.24	760	MLV450□121K40CS□□□
	150	18 x 45	0.24	874	MLV450□151L45CS□□□
		20 x 40	0.24	884	MLV450□151L40CS□□□
180	22 x 50	0.24	1,045	MLV450□181M50CS□□□	

WV (Vdc)	Cap (uF)	Size ØxL (mm)	Tan δ	Ripple ¹⁾	Code No
500	27	10 x 50	0.24	290	MLV500□270G50CS□□□
	33	12.5 x 45	0.24	347	MLV500□330X45CS□□□
	39	12.5 x 50	0.24	404	MLV500□390X50CS□□□
	47	18 x 31.5	0.24	445	MLV500□470K32CS□□□
	56	12.5 x 60	0.24	489	MLV500□560X60CS□□□
	68	18 x 35.5	0.24	556	MLV500□680K36CS□□□
	82	18 x 40	0.24	620	MLV500□820K40CS□□□
	100	18 x 45	0.24	713	MLV500□101K45CS□□□
		20 x 40	0.24	760	MLV500□101L40CS□□□
	120	22 x 45	0.24	855	MLV500□121M45CS□□□
	150	22 x 50	0.24	931	MLV500□151M50CS□□□

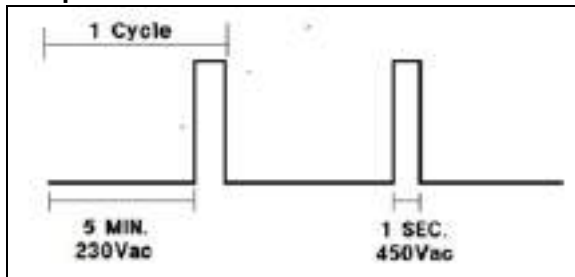
Rated ripple current multipliers

Frequency (Hz)	120	1K	10K	50K	100K
Factor	1.00	1.25	1.50	1.75	2.00

Spike Test Method

- Avoid abnormal feature's change by applying abnormal voltage to following conditions.

Spike Test conditions



Applied Voltage	Times	Cycles
230Vac	5 Minutes	216 cycle
450Vac	1 seconds	