



MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS

MLC Series

• 85°C 10,000Hrs assured.

- Non-solvent proof.
- Long life.
- For LED TV Power, SMPS.
- RoHS compliant.
- Halogen-free capacitors are also available.



SPECIFICATIONS

Item	Characteristics		
Rated Voltage Range	400 V _{DC}	420 ~ 500 V _{DC}	
Operating Temperature Range	-40 ~ + 85°C	-25 ~ + 85°C	
Capacitance Tolerance	$\pm 20\%(\text{M})$		(at 20°C, 120Hz)
Leakage Current	C · V Time	After 1 minute	After 5 minutes
	≤ 1000	I = 0.1CV + 40	I = 0.03CV + 15
	> 1000	I = 0.04CV + 100	I = 0.02CV + 25
	Where, I:Max. Leakage current(μA) C:Nominal capacitance(μF) V:Rated voltage(V _{DC}) (at 20°C)		
Dissipation Factor(Tanδ)	Rated Voltage(V _{DC}) Tanδ(Max.)	400~500 0.24	(at 20°C, 120Hz)
Temperature Characteristics (Max. Impedance ratio)	Rated Voltage(V _{DC}) Z(-25°C)/Z(+20°C) Z(-40°C)/Z(+20°C)	400 5 6	420~500 6 -
Load Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for 10,000 hours at 85°C. Capacitance change ≤ ±20% of the initial value Tanδ ≤ 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 85°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% of the initial specified value		
Others	Satisfied characteristics KS C IEC 60384-4		

DIMENSIONS OF MLC Series

Unit(mm)

Dimensions				Marking : BLACK SLEEVE, WHITE INK
ØD	L'	15min.	4min.	ØD ± 0.05
Safety vent	Sleeve			F ± 0.5
ØD	12.5	16	18	ØD
Ød	0.6	0.8	0.8	Ød
F	5.0	7.5	7.5	F
ØD'	$\varnothing D + 0.5 \text{ max.}$			ØD'
L'	$L + 2.0 \text{ max.}$			L'

RATINGS OF MLC Series

V _{DC}	Cap.(μ F)	Case size Ø D × L(mm)	Rated Ripple Current (mArms/85°C)				
			120Hz	1KHz	10KHz	50KHz	100KHz
400	68	16 × 31.5	676	946	1,013	1,351	1,892
		18 × 25	653	914	979	1,306	1,828
	82	16 × 35.5	780	1,092	1,170	1,560	2,184
		18 × 31.5	780	1,092	1,170	1,560	2,184
	100	16 × 40	936	1,310	1,404	1,872	2,621
		18 × 31.5	840	1,176	1,260	1,680	2,352
	120	16 × 45	1,067	1,494	1,600	2,134	2,987
		18 × 35.5	996	1,394	1,494	1,992	2,789
	150	16 × 50	1,176	1,646	1,764	2,352	3,293
420	68	16 × 31.5	660	924	990	1,320	1,320
		18 × 25	640	896	960	1,280	1,280
	82	16 × 35.5	765	1,071	1,148	1,530	1,530
		18 × 31.5	765	1,071	1,148	1,530	1,530
	100	16 × 40	870	1,218	1,305	1,740	1,740
		18 × 35.5	830	1,162	1,245	1,660	1,660
	120	16 × 45	1,020	1,428	1,530	2,040	2,040
		18 × 40	1,020	1,428	1,530	2,040	2,040
	150	16 × 50	1,104	1,546	1,656	2,208	2,208
450	68	16 × 35.5	670	838	1,005	1,340	1,340
		18 × 31.5	644	902	966	1,288	1,288
	82	16 × 40	760	1,064	1,140	1,520	1,520
		18 × 31.5	760	1,064	1,140	1,520	1,520
	100	16 × 40	900	1,125	1,350	1,800	1,800
		16 × 45	912	1,277	1,368	1,824	1,824
		18 × 35.5	900	1,260	1,350	1,800	1,800
	120	16 × 50	960	1,344	1,440	1,920	1,920
		18 × 40	966	1,352	1,449	1,932	1,932
	150	16 × 50	1,040	1,456	1,560	2,080	2,080
500	10	12.5 × 16	129	180	193	258	258
	22	16 × 25	258	361	386	515	515
	47	16 × 35.5	430	602	645	860	860
	56	16 × 40	500	700	750	1,000	1,000
	68	16 × 40	590	738	885	1,180	1,180
		16 × 45	600	840	900	1,200	1,200
	82	16 × 45	630	882	945	1,260	1,260
		16 × 50	680	952	1,020	1,360	1,360
	100	16 × 45	840	1,050	1,260	1,680	1,680
		16 × 50	840	1,176	1,260	1,680	1,680
		18 × 45	840	1,176	1,260	1,680	1,680