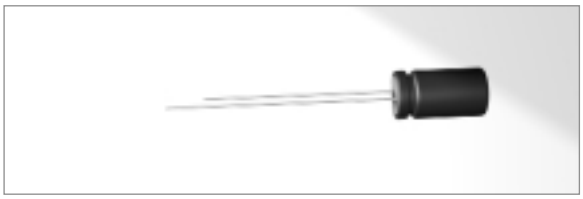
LMK Series 105 °C

Features

- Design for space-saving and high density insertion.
- Applications: VTR, car radio, car stereos, charger, etc.
- For detail specifications, please refer to Engineering Bulletin No. E115



Specifications

Item	Performance Characteristics
Operating Temperature Range	-40 °C to +105 °C
Rated voltage Range	4 to 63 VDC
Capacitance Range	0.1 to 470 uF
Capacitance Tolerance	±20 % (120 Hz, +20 °C)
Leakage Current (+20 °C, max.)	1 ⩽ 0.01 CV or 3 (uA) After 1 minutes whichever is greater measured with rated working voltage applied.

Dissipation Factor (tan δ)

Working Voltage (VDC)	4	6.3	10	16	25	35	50	63
D.F. (%) max	35	24	20	16	14	12	10	9

(+ 20 °C, at 120 Hz)

Low Temperature Characteristics (120 Hz)

Impedance radio max.

Working Voltage (VDC)	4	6.3	10	16	25	35	50	63
Z-25 °C/Z+20 °C	7	4	3	2	2	2	2	2
Z-40 °C/Z+20 °C	15	8	6	4	4	3	3	3

Load Life

Test conditions
Duration time: 1000 Hrs
Ambient temperature: +105 °C
Applied voltage: Rated DC working voltage
After test requirements: at + 20 %
Capacitance change: ⩽ ±20% of the initial measured value (4V: ⩽ ± 30 %)
Dissipation Factor: ⩽ 200 % of the initial specified value
Leakage current: ⩽ The initial specified value

Shelf Life

Test conditions
Duration time: 500 Hrs
Ambient temperature: + 105°C
Applied voltage: None
After test requirements at +20 °C: Some limits as Load life.
Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes.

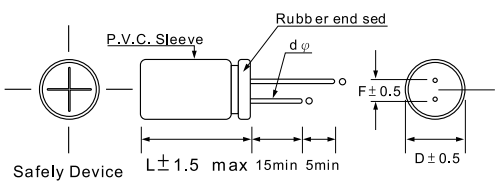
Multiplier for Ripple Current vs. Frequency

CAP(uF)\Hz		50(60)	120	400	1K	10K	50K~100K
Multiplier	CAP⩽ 10	0.8	1	1.30	1.45	1.65	1.70
	10 < CAP⩽ 100	0.8	1	1.23	1.36	1.48	1.53
	100 < CAP ⩽ 1000	0.8	1	1.16	1.25	1.35	1.38

Multiplier for Ripple Current vs. Temperature

Temperature °C	45	60	70	85	105
Multier	2.10	1.90	1.65	1.40	1.00

Diagram of Dimensions: (Unit: mm)



Dφ	4	5	6.3	8
F	1.5	2.0	2.5	3.5
dφ	0.45		0.5	

Case Size

D x L (mm)

W.V. / uF	6.3 (8)	10 (13)	16 (20)	25 (32)	35 (44)	50 (63)
0.1-0.47	→	→	→	→	→	4X7
1	→	→	→	→	→	4X7
2.2	→	→	→	→	→	4X7
3.3	→	→	→	→	→	4X7
4.7	→	→	→	→	→	4X7
10	→	→	→	4X7	4X7 5X7	5X7
22	→	→	4X7	4X7 5X7	6X7	6X7
33	→	4X7	5X7	5X7	6X7	8X7
47	→	4X7	5X7	6X7	6X7	8X7
100	→	5X7	6X7	6X7 8X7	8X7	
220	6X7	6X7	6X7 8X7	8X9		
470	8X7	8X7	8X9			
330	6X7	8X7	8X7			

Maximum Ripple Current

(mA, rms, 120 Hz at 105 °C)

W.V. / uF	6.3 (8)	10 (13)	16 (20)	25 (32)	35 (44)	50 (63)
0.1	→	→	→	→	→	3
0.22	→	→	→	→	→	3
0.33	→	→	→	→	→	3
0.47	→	→	→	→	→	5
1	→	→	→	→	→	10
2.2	→	→	→	→	→	19
3.3	→	→	→	→	→	24
4.7	→	→	→	15	20	29
10	→	→	30	30	28, 30	32
22	→	35	37	40, 45	47	50
33	→	40	42	47	52	62
47	40	47	65	65	70	-
100	65	90	92	95, 135	150	-
220	120	125	185-210	260	-	-
330	150	245	260	-	-	-
470	250	290	360	-	-	-