

Alchip™-**MLK**Series

- 6.1mm height
- Endurance : 5,000 hours at 105°C
- Rated voltage range : 6.3 to 35V
- Nominal capacitance range : 4.7 to 100μF
- Suitable to fit for downsized equipment
- Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- RoHS2 Compliant

MVL  $\xrightarrow{\text{Longer life}}$  **MLK**

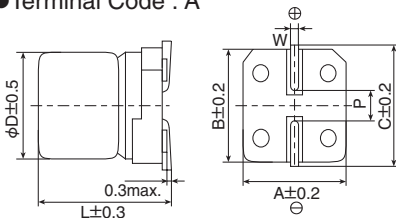


◆ **SPECIFICATIONS**

Items	Characteristics					
<b>Category</b>	-25 to +105°C					
<b>Temperature Range</b>	-25 to +105°C					
<b>Rated Voltage Range</b>	6.3 to 35V <sub>dc</sub>					
<b>Capacitance Tolerance</b>	±20%(M) (at 20°C, 120Hz)					
<b>Leakage Current</b>	I=0.03CV or 4μA, whichever is greater Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C, after 2 minutes)					
<b>Dissipation Factor (tan δ)</b>	Rated voltage (V <sub>dc</sub> )	6.3V	10V	16V	25V	35V
	tan δ (Max.)	0.32	0.28	0.26	0.16	0.14
<b>Low Temperature Characteristics (Max. Impedance Ratio)</b>	Rated voltage(V <sub>dc</sub> )	6.3V	10V	16V	25V	35V
	Z(-10°C)/Z(+20°C)	4	3	2	2	2
<b>Endurance</b>	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 5,000 hours at 105°C.					
	Capacitance change	≤ ±30% of the initial value				
	D.F. (tan δ)	≤ 300% of the initial specified value				
	Leakage current	≤ The initial specified value				
<b>Shelf Life</b>	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. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4.					
	Capacitance change	≤ ±30% of the initial value				
	D.F. (tan δ)	≤ 300% of the initial specified value				
	Leakage current	≤ The initial specified value				

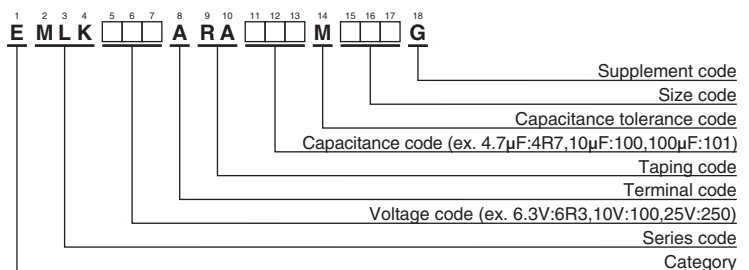
◆ **DIMENSIONS [mm]**

● Terminal Code : A



Size code	D	L	A	B	C	W	P
E61	5	5.8	5.3	5.3	5.9	0.5 to 0.8	1.4
F61	6.3	5.8	6.6	6.6	7.2	0.5 to 0.8	1.9

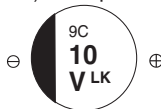
◆ **PART NUMBERING SYSTEM**



Please refer to "Product code guide (surface mount type)"

◆ **MARKING**

EX) 35V10μF



● Rated voltage symbol

Rated voltage (V <sub>dc</sub> )	6.3	10	16	25	35
Symbol	j	A	C	E	V

◆ **STANDARD RATINGS**

WV (V <sub>dc</sub> )	Cap (μF)	Size code	tan δ	Rated ripple current (mA <sub>rms</sub> /105°C, 120Hz)	Part No.
6.3	47	E61	0.32	36	EMLK6R3ARA470ME61G
	100	F61	0.32	60	EMLK6R3ARA101MF61G
10	33	E61	0.28	35	EMLK100ARA330ME61G
16	22	E61	0.26	30	EMLK160ARA220ME61G
	47	F61	0.26	50	EMLK160ARA470MF61G
25	33	F61	0.16	48	EMLK250ARA330MF61G
35	4.7	E61	0.14	19	EMLK350ARA4R7ME61G
	10	E61	0.14	25	EMLK350ARA100ME61G
	10	F61	0.14	30	EMLK350ARA100MF61G
	22	F61	0.14	42	EMLK350ARA220MF61G

◆ **RATED RIPPLE CURRENT MULTIPLIERS**

● Frequency Multipliers

Frequency(Hz)	120	1k	10k	100k
6.3 to 35V <sub>dc</sub>	1.00	1.05	1.08	1.08

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.