



MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS

EMA Series

• 105°C 2,000Hrs assured.

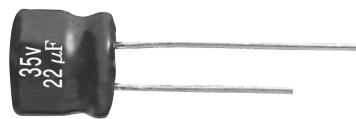
- Height 5mm.
- Wide Temperature range.
- Long Life.
- For CAR-Audio, Tuner.
- RoHS compliant.
- Halogen-free capacitors are also available.

Solvent-proof

ESA
(KRE)

EMA

Long Life



SPECIFICATIONS

Item	Characteristics								
Rated Voltage Range	4 ~ 50 V _{DC}								
Operating Temperature Range	-55 ~ +105°C								
Capacitance Tolerance	±20%(M) (at 20°C, 120Hz)								
Leakage Current	I=0.01CV(μA) or 3μA, whichever is greater. Where, I:Max. Leakage current(μA), C:Nominal capacitance(μF), V:Rated voltage(V _{DC}) (at 20°C, 2 minutes)								
Dissipation Factor(Tanδ)	Rated Voltage(V _{DC})	4	6.3	10	16	25	35		
	Tanδ(Max.)	0.30	0.27	0.23	0.19	0.15	0.13		
	(at 20°C, 120Hz)								
Temperature Characteristics (Max.Impedance ratio)	Rated Voltage(V _{DC})	4	6.3	10	16	25~50			
	Z(-25°C)/Z(20°C)	6	3	3	2	2			
	Z(-40°C)/Z(20°C)	12	9	7	5	3			
	(at 120Hz)								
Load Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 2,000 hours at 105°C. Capacitance change ≤ ±25% 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 the 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 30minutes, at least 24hours and not more than 48 hours before the measurements. Capacitance change ≤ ±25% of the initial value Tanδ ≤ 200% of the initial specified value Leakage current ≤ The initial specified value								
Others	Satisfied characteristics KS C IEC 60384-4								

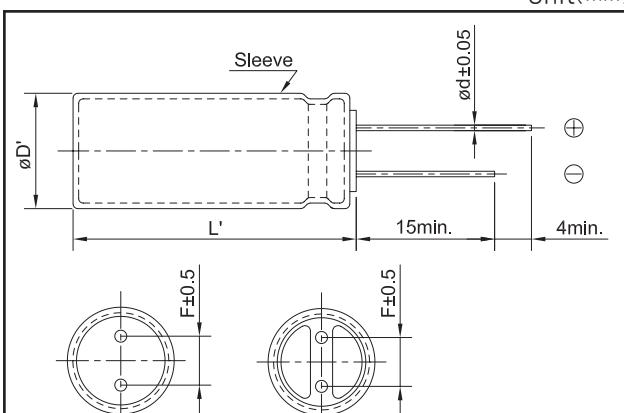
RATINGS OF EMA Series

V _{DC} μF	4	6.3	10	16	25	35	50
22							8X5 49
33						8X5 55	8X5 60
47					8X5 60	8X5 66	
68				8X5 66	8X5 73		
100			8X5 71	8X5 80			
150		8X5 77	8X5 87				
220	8X5 105	8X5 94					

↑
Rated Ripple Current (mA rms/105°C, 120Hz)
Case Size Ø D × L(mm)

DIMENSIONS OF EMA Series

Unit(mm)



Marking: BROWN SLEEVE, WHITE INK

Ø D	8
Ø d	0.45
F	2.5
Ø D'	Ø D + 0.5 max.
L'	L + 1.5 max.