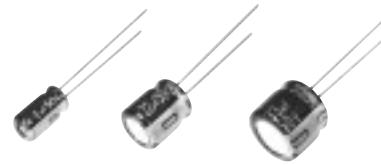
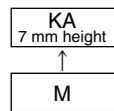


Radial Lead Type

Series: **KA** Type: **A**

Low Profile



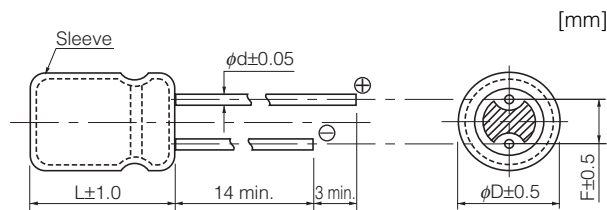
■ Features

- Endurance : 85° C 1000 h
- 7 mm height
- RoHS directive compliant

■ Specifications

| | | |
|-----------------------|---|------------------------------------|
| Category Temp. Range | -40 °C to +85 °C | |
| Rated W.V. Range | 4 V.DC to 50 V.DC | |
| Nominal Cap. Range | 0.1 μF to 470 μF | |
| Capacitance Tolerance | ±20 % (120 Hz/+20 °C) | |
| DC Leakage Current | $I \leq 0.01 CV$ or 3 (μA) After 2 minutes (Whichever is greater) | |
| tan δ | Please see the attached standard products list | |
| Endurance | After applying rated working voltage for 1000 hours at +85 °C±2 °C when the capacitors are restored to 20 °C, capacitors shall meet the following limits. | |
| | Capacitance change | ± 20% of initial measured value |
| | tan δ | ≤ 200 % of initial specified value |
| | DC leakage current | ≤ initial specified value |
| Shelf Life | After storage for 1000 hours at +85 °C±2 °C with no voltage applied and then being stabilized at +20 °C, capacitors shall meet the limits specified in Endurance (With voltage treatment) | |

■ Dimensions in mm (not to scale)



(mm)

| | | | | |
|--------------------|------|------|------|------|
| Body Dia. ϕD | 4 | 5 | 6.3 | 8 |
| Lead Dia. ϕd | 0.45 | 0.45 | 0.45 | 0.45 |
| Lead space F | 1.5 | 2.0 | 2.5 | 3.5 |

■ Standard Products

| W.V. (V) | Cap. (±20 %) (μF) | Case size | | Specification | | Lead Length | | | | Part No. | Min. Packaging Q'ty | |
|-------------|-------------------------|--------------|----------------|---|-------------------------------|-------------------|------------------|----------------------|----------------------|----------------|-------------------------|-----------------|
| | | Dia. (mm) | Length (mm) | Ripple Current (120 Hz) (+85 °C) (mA r.m.s.) | tan δ (120 Hz) (+20 °C) | Lead Dia. (mm) | Lead Space | | | | Straight Leads (pcs) | Taping (pcs) |
| | | | | | | | Straight (mm) | Taping *B (mm) | Taping *i (mm) | | | |
| 4 | 47 | 4 | 7 | 34 | 0.35 | 0.45 | 1.5 | 5.0 | 2.5 | ECEA0GKA470() | 200 | 2000 |
| | 100 | 5 | 7 | 61 | 0.35 | 0.45 | 2.0 | 5.0 | 2.5 | ECEA0GKA101() | 200 | 2000 |
| | 220 | 6.3 | 7 | 82 | 0.35 | 0.45 | 2.5 | 5.0 | 2.5 | ECEA0GKA221() | 200 | 2000 |
| | 330 | 8 | 7 | 110 | 0.35 | 0.45 | 3.5 | | 2.5 | ECEA0GKA331() | 200 | 1000 |
| | | 8 | 7 | 110 | 0.35 | 0.45 | | 5.0 | | ECEA0GKA331Q | | 1000 |
| | 470 | 8 | 7 | 140 | 0.35 | 0.45 | 3.5 | | 2.5 | ECEA0GKA471() | 200 | 1000 |
| 8 | | 7 | 140 | 0.35 | 0.45 | | 5.0 | | ECEA0GKA471Q | | 1000 | |
| 6.3 | 47 | 4 | 7 | 46 | 0.24 | 0.45 | 1.5 | 5.0 | 2.5 | ECEA0JKA470() | 200 | 2000 |
| | 100 | 5 | 7 | 71 | 0.24 | 0.45 | 2.0 | 5.0 | 2.5 | ECEA0JKA101() | 200 | 2000 |
| | 220 | 6.3 | 7 | 103 | 0.24 | 0.45 | 2.5 | 5.0 | 2.5 | ECEA0JKA221() | 200 | 2000 |
| | 330 | 8 | 7 | 130 | 0.24 | 0.45 | 3.5 | | 2.5 | ECEA0JKA331() | 200 | 1000 |
| | | 8 | 7 | 130 | 0.24 | 0.45 | | 5.0 | | ECEA0JKA331Q | | 1000 |
| 10 | 33 | 4 | 7 | 43 | 0.20 | 0.45 | 1.5 | 5.0 | 2.5 | ECEA1AKA330() | 200 | 2000 |
| | 100 | 6.3 | 7 | 80 | 0.20 | 0.45 | 2.5 | 5.0 | 2.5 | ECEA1AKA101() | 200 | 2000 |
| | 220 | 8 | 7 | 120 | 0.20 | 0.45 | 3.5 | | 2.5 | ECEA1AKA221() | 200 | 1000 |
| | | 8 | 7 | 120 | 0.20 | 0.45 | | 5.0 | | ECEA1AKA221Q | | 1000 |
| 16 | 10 | 4 | 7 | 28 | 0.16 | 0.45 | 1.5 | 5.0 | 2.5 | ECEA1CKA100() | 200 | 2000 |
| | 22 | 4 | 7 | 39 | 0.16 | 0.45 | 1.5 | 5.0 | 2.5 | ECEA1CKA220() | 200 | 2000 |
| | 33 | 5 | 7 | 60 | 0.16 | 0.45 | 2.0 | 5.0 | 2.5 | ECEA1CKA330() | 200 | 2000 |
| | 47 | 5 | 7 | 70 | 0.16 | 0.45 | 2.0 | 5.0 | 2.5 | ECEA1CKA470() | 200 | 2000 |
| | 100 | 6.3 | 7 | 91 | 0.16 | 0.45 | 2.5 | 5.0 | 2.5 | ECEA1CKA101() | 200 | 2000 |
| 25 | 10 | 4 | 7 | 28 | 0.14 | 0.45 | 1.5 | 5.0 | 2.5 | ECEA1EKA100() | 200 | 2000 |
| | 22 | 5 | 7 | 55 | 0.14 | 0.45 | 2.0 | 5.0 | 2.5 | ECEA1EKA220() | 200 | 2000 |
| | 33 | 6.3 | 7 | 65 | 0.14 | 0.45 | 2.5 | 5.0 | 2.5 | ECEA1EKA330() | 200 | 2000 |
| | 47 | 6.3 | 7 | 70 | 0.14 | 0.45 | 2.5 | 5.0 | 2.5 | ECEA1EKA470() | 200 | 2000 |
| 35 | 10 | 5 | 7 | 30 | 0.12 | 0.45 | 2.0 | 5.0 | 2.5 | ECEA1VKA100() | 200 | 2000 |
| | 22 | 6.3 | 7 | 60 | 0.12 | 0.45 | 2.5 | 5.0 | 2.5 | ECEA1VKA220() | 200 | 2000 |
| | 33 | 6.3 | 7 | 65 | 0.12 | 0.45 | 2.5 | 5.0 | 2.5 | ECEA1VKA330() | 200 | 2000 |
| | 47 | 8 | 7 | 85 | 0.12 | 0.45 | 3.5 | | 2.5 | ECEA1VKA470() | 200 | 1000 |
| | | 8 | 7 | 85 | 0.12 | 0.45 | | 5.0 | | ECEA1VKA470Q | | 1000 |
| 50 | 0.1 | 4 | 7 | 1 | 0.10 | 0.45 | 1.5 | 5.0 | 2.5 | ECEA1HKA0R1() | 200 | 2000 |
| | 0.22 | 4 | 7 | 2 | 0.10 | 0.45 | 1.5 | 5.0 | 2.5 | ECEA1HKAR22() | 200 | 2000 |
| | 0.33 | 4 | 7 | 3 | 0.10 | 0.45 | 1.5 | 5.0 | 2.5 | ECEA1HKAR33() | 200 | 2000 |
| | 0.47 | 4 | 7 | 5 | 0.10 | 0.45 | 1.5 | 5.0 | 2.5 | ECEA1HKAR47() | 200 | 2000 |
| | 1 | 4 | 7 | 10 | 0.10 | 0.45 | 1.5 | 5.0 | 2.5 | ECEA1HKA010() | 200 | 2000 |
| | 2.2 | 4 | 7 | 16 | 0.10 | 0.45 | 1.5 | 5.0 | 2.5 | ECEA1HKA2R2() | 200 | 2000 |
| | 3.3 | 4 | 7 | 18 | 0.10 | 0.45 | 1.5 | 5.0 | 2.5 | ECEA1HKA3R3() | 200 | 2000 |
| | 4.7 | 4 | 7 | 23 | 0.10 | 0.45 | 1.5 | 5.0 | 2.5 | ECEA1HKA4R7() | 200 | 2000 |
| | 10 | 5 | 7 | 35 | 0.10 | 0.45 | 2.0 | 5.0 | 2.5 | ECEA1HKA100() | 200 | 2000 |
| | 22 | 6.3 | 7 | 60 | 0.10 | 0.45 | 2.5 | 5.0 | 2.5 | ECEA1HKA220() | 200 | 2000 |
| | 33 | 8 | 7 | 75 | 0.10 | 0.45 | 3.5 | | 2.5 | ECEA1HKA330() | 200 | 1000 |
| 8 | | 7 | 75 | 0.10 | 0.45 | | 5.0 | | ECEA1HKA330Q | | 1000 | |

Endurance : 85 °C 1000 h

When requesting taped product, please put the letter "B" or "i" between the "()". Lead wire pitch B=5 mm, i=2.5 mm. The taping dimensions are explained on p.178 of our Catalog. Please use it as a reference guide.

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use. Should a safety concern arise regarding this product, please be sure to contact us immediately.