

COMPONENT SPECIFICATION

SERIES NAME Metallized Polyester Film Capacitors
Economic Type Fan Regulator Capacitors
(MPET-EC)
SERIES CODE 81



GIVEN BY: DEKI ELECTRONICS LTD

DEKI ELECTRONICS LTD

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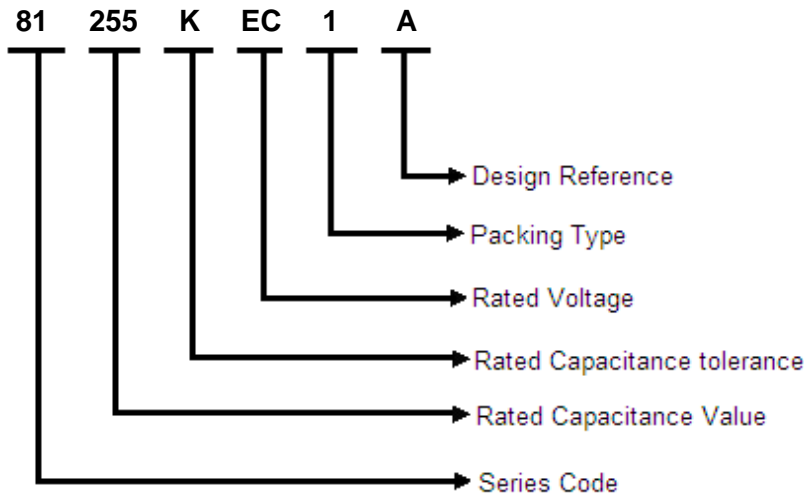
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Item Code Description



Three-digit (255) indicate rated capacitance in Pico Farad (First two digits indicate value & third digit indicates number of zeroes to be suffixed to first two digits).

Rated Capacitance

For example:

| | | | |
|----------------------------|---------------|------------|-----------|
| 103 = 10 × 10 ³ | = 10000 pF | = 10 nF | = 0.01 μF |
| 104 = 10 × 10 ⁴ | = 100000 pF | = 100 nF | = 0.1 μF |
| 105 = 10 × 10 ⁵ | = 1000000 pF | = 1000 nF | = 1 μF |
| 106 = 10 × 10 ⁶ | = 10000000 pF | = 10000 nF | = 10 μF |

Capacitance Tolerance

F = ±1%, G = ±2%, H = ±2.5%, I = ±3.5%, J = ±5%, K = ±10%, L = ±15%, M = ±20%, N=±40%

Rated Voltage

One digit and one letter (2A) or two digits (02) indicate rated voltage

Rated Voltage Codification

| For DC Rated Voltage | | | | | | | | | | | | | |
|----------------------|-------|----|-------|----|------|----|------|----|------|----|------|----|-------|
| A | | B | | C | | D | | E | | F | | G | |
| 1A | 10 | 1B | 12.5 | 1C | 16 | 1D | 20 | 1E | 25 | 1F | 30 | 1G | 40 |
| 2A | 100 | 2B | 125 | 2C | 160 | 2D | 200 | 2E | 250 | 2F | 300 | 2G | 400 |
| 3A | 1000 | 3B | 1250 | 3C | 1600 | 3D | 2000 | 3E | 2500 | 3F | 3000 | 3G | 4000 |
| H | | I | | J | | K | | L | | M | | N | |
| 1H | 50 | 1I | 45 | 1J | 63 | 1K | 70 | 1L | 80 | 1M | 85 | 1N | 90 |
| 2H | 500 | 2I | 450 | 2J | 630 | 2K | 700 | 2L | 800 | 2M | 850 | 2N | 900 |
| 3H | 5000 | 3I | 4500 | 3J | 6300 | 3K | 7000 | 3L | 8000 | 3M | 8500 | 3N | 9000 |
| O | | P | | Q | | R | | S | | T | | U | |
| 1O | 110 | 1P | 120 | 1Q | 57.5 | 1R | 15 | 1S | 17 | 1T | 70 | 1U | 130 |
| 2O | 1100 | 2P | 1200 | 2Q | 575 | 2R | 150 | 2S | 170 | 2T | 700 | 2U | 1300 |
| 3O | 11000 | 3P | 12000 | 3Q | 5750 | 3R | 1500 | 3S | 1700 | 3T | 7000 | 3U | 13000 |

| For AC Rated Voltage | | | | | | | | | | | | | |
|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | EC |
| 190 | 250 | 275 | 305 | 310 | 440 | 500 | 600 | 700 | 63 | 230 | 330 | 400 | 250 |
| VAC | VAC | VAC | VAC | VAC | VAC | VAC | VAC | VAC | VAC | VAC | VAC | VAC | VAC |

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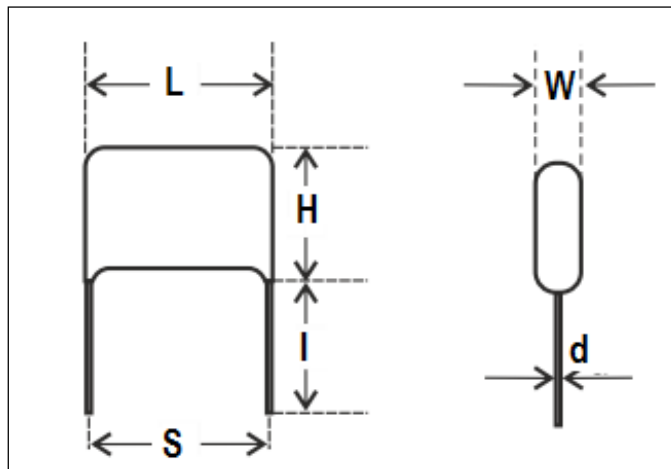
Packing Type

- 1: Bulk packing (original pitch)
- 2: Bulk packing (after forming & cutting)
- 3: Ammo packing (after forming & taping)
- 4: Bulk packing (after forming in original pitch without cut)
- 5: Bulk packing (after formed & without cut)
- 6: Ammo packing (Straight lead)
- 7: Bulk packing (Straight lead cut)
- 8: Reel packing (Straight lead)

Reference Data

| | |
|---|--|
| Capacitance | 1.0 μ F to 5.5 μ F |
| Capacitance Tolerance | \pm 5% and \pm 10% |
| Rated AC Voltage at 50/60 Hz | 250Vac |
| Climatic testing class according to IEC 60068-1 | 40/85/21 |
| Rated temperature | 70°C |
| Dielectric | Polyester |
| Electrodes | Metallized |
| Construction | Mono |
| Encapsulation | Coated with flame retardant orange colour epoxy powder |
| Leads | Tinned wire |
| Marking on capacitor body | Type of capacitor, rated capacitance, rated tolerance, rated voltage and traceability code will be available on each and every capacitor. Example- MPET-EC D335 K 250VAC 902231234-B |

Dimensions Description



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| Rated Capacitance (μF) | Dimensions (mm) | | | | | | Item Code |
|------------------------|-----------------|---------|---------|----------|-----------|---------|-----------------|
| | L (Max) | H (Max) | W (Max) | S | d (±0.05) | l | |
| 1 | 31 | 15 | 6 | 27.5±1.0 | 0.8 | 17 Min. | 81 105 K EC 1 A |
| 1 | 31 | 15 | 6 | 27.5±0.5 | 0.8 | 5±1.0 | 81 105 K EC 7 A |
| 1.2 | 31 | 16 | 7 | 27.5±1.0 | 0.8 | 17 Min. | 81 125 K EC 1 B |
| 1.5 | 31 | 16 | 7 | 27.5±1.0 | 0.8 | 17 Min. | 81 155 K EC 1 A |
| 2.2 | 31 | 18 | 8 | 27.5±1.0 | 0.8 | 17 Min. | 81 225 K EC 1 B |
| 2.2 | 31 | 18 | 8 | 27.5±0.5 | 0.8 | 5±1.0 | 81 225 K EC 7 B |
| 2.4 | 31 | 18 | 8.5 | 27.5±1.0 | 0.8 | 17 Min. | 81 245 K EC 1 B |
| 2.5 | 31 | 19 | 9 | 27.5±1.0 | 0.8 | 17 Min. | 81 255 K EC 1 B |
| 2.7 | 31 | 19 | 9.5 | 27.5±1.0 | 0.8 | 17 Min. | 81 275 K EC 1 B |
| 2.7 | 31 | 19 | 9.5 | 27.5±0.5 | 0.8 | 5±1.0 | 81 275 K EC 7 B |
| 3.3 | 31 | 21 | 10 | 27.5±1.0 | 0.8 | 17 Min. | 81 335 K EC 1 B |
| 3.7 | 31 | 21 | 11 | 27.5±1.0 | 0.8 | 17 Min. | 81 375 J EC 1 B |
| 4 | 31 | 22 | 11.5 | 27.5±1.0 | 0.8 | 17 Min. | 81 405 K EC 1 B |
| 4.3 | 31 | 22 | 12 | 27.5±1.0 | 0.8 | 17 Min. | 81 435 K EC 1 B |
| 5.5 | 31 | 24 | 13.5 | 27.5±1.0 | 0.8 | 17 Min. | 81 555 K EC 1 B |

Specific Data

| Description | Value |
|--|-------------------------|
| Maximum tangent of loss angle (Tanδ) | 0.01 at 1 kHz |
| Voltage proof test between leads | 640Vdc for 2 second |
| Insulation Resistance (R _{IS}) | ≥2500 second at 100 Vdc |
| (or) time constant T= C _R × R _{IS} | |
| at 25° C, relative humidity ≤70% | |

Lot To Lot High Voltage AC Test

Loaded at 380Vac at ambient temperature for 2 hours.

After The Test

| | |
|-----------------------|---|
| ΔC/C | : ≤ 10% of initial value |
| Increase of Tanδ | : ≤ 0.004 at 1 kHz |
| Insulation resistance | : ≥ 50% of the value mentioned in specific data |

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Storage Conditions

Avoid storing the capacitors in places where the environmental conditions differ from the following:

- Storage time: ≤ 24 months from the date marked on the label glued to the package.
- Temperature: -40 to 80°C
- Humidity:

- Average per year: $\leq 70\%$
- For 30 full days randomly distributed throughout the year: $\leq 85\%$
- Dew: absent

After a longer period of storage or use, the tolerance can increase; but, according to standard specification, it may never exceed twice the value measured at the time of delivery.

Disclaimer

All our capacitors are designed, manufactured and tested to specifications. We strictly adhere to standards in procurement of materials, in the laid down manufacturing processes and consistently apply stringent process controls and testing parameters. This ensures that our capacitors always perform to the offered specifications.

Appropriateness of use in a specific circuit and fitness to a particular application however needs to be verified and its reliability through expected lifetime is required to be validated by the customer. Deki's responsibility is limited to ensuring that the capacitor performs as claimed in the specification/ data sheets provided by Deki. Deki specifically disclaims any implied warranties of fitness for any particular purpose. Liability, in any case is limited to the price paid for the capacitors.