

Radial Lead Type

Series: ED Type : A

■ Features

High ripple current (at high frequency)
 Endurance: 105 °C 8000,10000h
 Including low profile products (20mm height)

Country of Origin

Japan
 Malaysia
 China



■ Main applications

Electronic ballast, Power supply input circuit

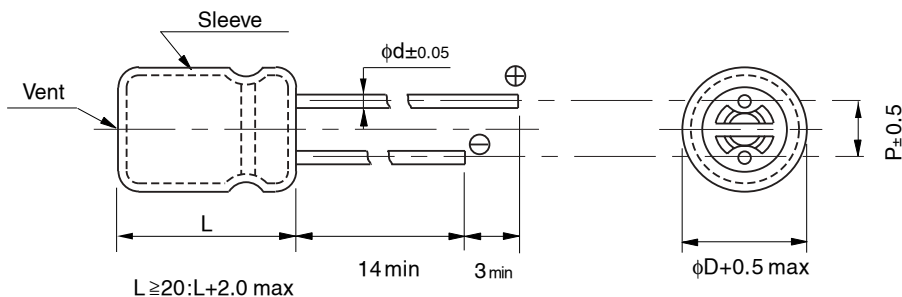
■ Specifications

| | | | | | | | |
|------------------------------------|--|----------------------------------|-----|-----|-----|-----|-----|
| Category temp. range | -25 to +105°C | | | | | | |
| Rated W.V. Range | 160 to 450 V .DC | | | | | | |
| Nominal Cap. Range | 10 to 330 μ F | | | | | | |
| Capacitance Tolerance | ±20 % (120Hz/+20°C) | | | | | | |
| DC Leakage Current | $I \leq 0.06 CV + 10(\mu A)$ After 2 minutes application of rated working voltage at +20°C | | | | | | |
| tan δ | Please see the attached standard products list | | | | | | |
| Characteristics at low temperature | W.V.(V) | 160 | 200 | 250 | 350 | 400 | 450 |
| | Z(-25°C)/Z(20°C) | 3 | 3 | 3 | 6 | 6 | 6 |
| Endurance | After following life test with DC voltage and +105±2°C ripple current value applied (The sum of DC and ripple peak voltage shall not exceed the rated working voltage), for regulation times, the capacitors shall meet the limits specified below. Post test requirements at +20°C. | | | | | | |
| | Regulation times of life test: φ 10=8000h, φ 12.5 to φ18=10000h | | | | | | |
| | Capacitance change | ±20% of initial measured value | | | | | |
| | tan δ | ≤ 200 of initial specified value | | | | | |
| Shelf Life | After storage for 1000 hours at +105±2 °C with no voltage applied and then being stabilized at +20 °C, capacitors shall meet the limits specified in Endurance (With voltage treatment) | | | | | | |

■ Ripple current Frequency Coefficient

| Frequency (Hz) | Cap.(μF) | | | | | |
|----------------|-------------|--------------|-------------|-------------|--------------|---------------|
| | 50 ≤ f <120 | 120 ≤ f <300 | 300 ≤ f <1k | 1k ≤ f <10k | 10k ≤ f <30k | 30k ≤ f ≤100k |
| Cap. < 100μF | 0.30 | 0.40 | 0.55 | 0.70 | 0.90 | 1.00 |
| 100μF ≤ Cap. | 0.35 | 0.45 | 0.60 | 0.75 | 0.90 | 1.00 |

■ Dimensions in mm (not to scale)



| | | | | |
|--------------|-----|------|-----|-----|
| Body Dia. φD | 10 | 12.5 | 16 | 18 |
| Lead Dia. φd | 0.6 | 0.6 | 0.8 | 0.8 |
| Lead space P | 5.0 | 5.0 | 7.5 | 7.5 |

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■ Standard Products

| W.V. (V) | Cap. (±20%) (μF) | Case size | | Specification | | | Lead Length | | | Part No. | Min.Packaging Qty | |
|-------------|------------------------|--------------|----------------|--|-----------------------------|---------------------------|----------------------|------------------|----------------------|----------------|----------------------------|-----------------|
| | | Dia. (mm) | Length (mm) | Ripple current (100kHz) (+105°C) (mA) | tan δ (120Hz) (+20°C) | Endu- rance (hours) | Lead Dia. (mm) | Lead Space | | | Straight Leads (pcs) | Taping (pcs) |
| | | | | | | | | Straight (mm) | Taping *B (mm) | | | |
| 160 | 22 | 10 | 20 | 500 | 0.15 | 8000 | 0.6 | 5.0 | 5.0 | EEUED2C220() | 200 | 500 |
| | 33 | 10 | 20 | 580 | 0.15 | 8000 | 0.6 | 5.0 | 5.0 | EEUED2C330() | 200 | 500 |
| | 47 | 10 | 20 | 750 | 0.15 | 8000 | 0.6 | 5.0 | 5.0 | EEUED2C470() | 200 | 500 |
| | 68 | 12.5 | 20 | 950 | 0.15 | 10000 | 0.6 | 5.0 | 5.0 | EEUED2C680() | 200 | 500 |
| | 82 | 12.5 | 25 | 1060 | 0.15 | 10000 | 0.6 | 5.0 | 5.0 | EEUED2C820() | 200 | 500 |
| | 100 | 12.5 | 25 | 1170 | 0.15 | 10000 | 0.6 | 5.0 | 5.0 | EEUED2C101() | 200 | 500 |
| | | 16 | 20 | 1280 | 0.15 | 10000 | 0.8 | 7.5 | 7.5 | EEUED2C101S() | 100 | 250 |
| | 150 | 16 | 25 | 1400 | 0.15 | 10000 | 0.8 | 7.5 | 7.5 | EEUED2C151() | 100 | 250 |
| | | 18 | 20 | 1400 | 0.15 | 10000 | 0.8 | 7.5 | 7.5 | EEUED2C151S() | 100 | 250 |
| | 220 | 16 | 31.5 | 1700 | 0.15 | 10000 | 0.8 | 7.5 | | EEUED2C221 | 100 | |
| 18 | | 25 | 1500 | 0.15 | 10000 | 0.8 | 7.5 | 7.5 | EEUED2C221S() | 100 | 250 | |
| 330 | 18 | 31.5 | 2000 | 0.15 | 10000 | 0.8 | 7.5 | | EEUED2C331 | 50 | | |
| 200 | 22 | 10 | 20 | 600 | 0.15 | 8000 | 0.6 | 5.0 | 5.0 | EEUED2D220() | 200 | 500 |
| | 33 | 10 | 20 | 650 | 0.15 | 8000 | 0.6 | 5.0 | 5.0 | EEUED2D330() | 200 | 500 |
| | 47 | 12.5 | 20 | 790 | 0.15 | 10000 | 0.6 | 5.0 | 5.0 | EEUED2D470() | 200 | 500 |
| | 68 | 12.5 | 25 | 950 | 0.15 | 10000 | 0.6 | 5.0 | 5.0 | EEUED2D680() | 200 | 500 |
| | | 16 | 20 | 1000 | 0.15 | 10000 | 0.8 | 7.5 | 7.5 | EEUED2D680S() | 100 | 250 |
| | 82 | 16 | 20 | 1100 | 0.15 | 10000 | 0.8 | 7.5 | 7.5 | EEUED2D820S() | 100 | 250 |
| | 100 | 16 | 25 | 1300 | 0.15 | 10000 | 0.8 | 7.5 | 7.5 | EEUED2D101() | 100 | 250 |
| | | 18 | 20 | 1280 | 0.15 | 10000 | 0.8 | 7.5 | 7.5 | EEUED2D101S() | 100 | 250 |
| | 150 | 16 | 25 | 1400 | 0.15 | 10000 | 0.8 | 7.5 | 7.5 | EEUED2D151() | 100 | 250 |
| | 220 | 18 | 31.5 | 2000 | 0.15 | 10000 | 0.8 | 7.5 | | EEUED2D221 | 100 | |
| 330 | 18 | 40 | 2400 | 0.15 | 10000 | 0.8 | 7.5 | | EEUED2D331 | 50 | | |
| 250 | 22 | 10 | 20 | 560 | 0.15 | 8000 | 0.6 | 5.0 | 5.0 | EEUED2E220() | 200 | 500 |
| | 33 | 12.5 | 20 | 710 | 0.15 | 10000 | 0.6 | 5.0 | 5.0 | EEUED2E330() | 200 | 500 |
| | 47 | 12.5 | 25 | 920 | 0.15 | 10000 | 0.6 | 5.0 | 5.0 | EEUED2E470() | 200 | 500 |
| | | 16 | 20 | 990 | 0.15 | 10000 | 0.8 | 7.5 | 7.5 | EEUED2E470S() | 100 | 250 |
| | 68 | 16 | 20 | 1000 | 0.15 | 10000 | 0.8 | 7.5 | 7.5 | EEUED2E680S() | 100 | 250 |
| | 82 | 16 | 25 | 1200 | 0.15 | 10000 | 0.8 | 7.5 | 7.5 | EEUED2E820() | 100 | 250 |
| | | 18 | 20 | 1200 | 0.15 | 10000 | 0.8 | 7.5 | 7.5 | EEUED2E820S() | 100 | 250 |
| | 100 | 16 | 31.5 | 1500 | 0.15 | 10000 | 0.8 | 7.5 | | EEUED2E101 | 100 | |
| | | 18 | 25 | 1500 | 0.15 | 10000 | 0.8 | 7.5 | 7.5 | EEUED2E101S() | 100 | 250 |
| | 150 | 18 | 31.5 | 1800 | 0.15 | 10000 | 0.8 | 7.5 | | EEUED2E151 | 50 | |
| 220 | 18 | 40 | 2100 | 0.15 | 10000 | 0.8 | 7.5 | | EEUED2E221 | 50 | | |
| 350 | 10 | 10 | 20 | 350 | 0.20 | 8000 | 0.6 | 5.0 | 5.0 | EEUED2V100() | 200 | 500 |
| | 22 | 12.5 | 20 | 480 | 0.20 | 10000 | 0.6 | 5.0 | 5.0 | EEUED2V220() | 200 | 500 |
| | 33 | 16 | 20 | 640 | 0.20 | 10000 | 0.8 | 7.5 | 7.5 | EEUED2V330S() | 100 | 250 |
| | 47 | 16 | 25 | 800 | 0.20 | 10000 | 0.8 | 7.5 | 7.5 | EEUED2V470() | 100 | 250 |
| | | 18 | 20 | 800 | 0.20 | 10000 | 0.8 | 7.5 | 7.5 | EEUED2V470S() | 100 | 250 |
| | 68 | 16 | 31.5 | 1100 | 0.20 | 10000 | 0.8 | 7.5 | | EEUED2V680 | 100 | |
| | | 18 | 25 | 1000 | 0.20 | 10000 | 0.8 | 7.5 | 7.5 | EEUED2V680S() | 100 | 250 |
| 82 | 18 | 25 | 1100 | 0.20 | 10000 | 0.8 | 7.5 | 7.5 | EEUED2V820S() | 100 | 250 | |

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■ 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 (100kHz) (+105°C) (mA) | tan δ (120Hz) (+20°C) | Endu- rance (hours) | Lead Dia. (mm) | Lead Space | | | Straight Leads (pcs) | Taping (pcs) |
| | | | | | | | | Straight (mm) | Taping *B | | | |
| 350 | 100 | 18 | 31.5 | 1200 | 0.20 | 10000 | 0.8 | 7.5 | | EEUED2V101 | 50 | |
| 400 | 10 | 10 | 20 | 300 | 0.24 | 8000 | 0.6 | 5.0 | 5.0 | EEUED2G100() | 200 | 500 |
| | 15 | 12.5 | 20 | 410 | 0.24 | 10000 | 0.6 | 5.0 | 5.0 | EEUED2G150() | 200 | 500 |
| | 22 | 12.5 | 25 | 500 | 0.24 | 10000 | 0.6 | 5.0 | 5.0 | EEUED2G220() | 200 | 500 |
| | | | 16 | 20 | 600 | 0.24 | 10000 | 0.8 | 7.5 | 7.5 | EEUED2G220S() | 100 |
| | 33 | 16 | 20 | 730 | 0.24 | 10000 | 0.8 | 7.5 | 7.5 | EEUED2G330S() | 100 | 250 |
| | 47 | 16 | 25 | 840 | 0.24 | 10000 | 0.8 | 7.5 | 7.5 | EEUED2G470() | 100 | 250 |
| | | | 18 | 20 | 840 | 0.24 | 10000 | 0.8 | 7.5 | 7.5 | EEUED2G470S() | 100 |
| | 68 | 18 | 31.5 | 1200 | 0.24 | 10000 | 0.8 | 7.5 | | EEUED2G680 | 50 | |
| 82 | 18 | 40 | 1500 | 0.24 | 10000 | 0.8 | 7.5 | | EEUED2G820 | 50 | | |
| 450 | 10 | 12.5 | 20 | 350 | 0.24 | 10000 | 0.6 | 5.0 | 5.0 | EEUED2W100() | 200 | 500 |
| | 15 | 12.5 | 25 | 560 | 0.24 | 10000 | 0.6 | 5.0 | 5.0 | EEUED2W150() | 200 | 500 |
| | 22 | 16 | 20 | 680 | 0.24 | 10000 | 0.8 | 7.5 | 7.5 | EEUED2W220S() | 100 | 250 |
| | 33 | 16 | 31.5 | 850 | 0.24 | 10000 | 0.8 | 7.5 | | EEUED2W330 | 100 | |
| | | | 18 | 25 | 850 | 0.24 | 10000 | 0.8 | 7.5 | 7.5 | EEUED2W330S() | 100 |
| | 47 | 18 | 31.5 | 1000 | 0.24 | 10000 | 0.8 | 7.5 | | EEUED2W470 | 50 | |
| 68 | 18 | 40 | 1300 | 0.24 | 10000 | 0.8 | 7.5 | | EEUED2W680 | 50 | | |

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