REA Series

Features

- 85°C, 2,000 ~ 3,000 hours assured
- Standard series for general purpose
- · RoHS Compliance

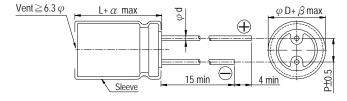


Sleeve & Marking Color: Blue & Black

Specifications

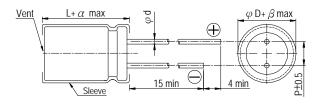
| Items | Performance | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|--|--|--|
| Category Temperature Range | -40°C ∼ +85°C | | | | | | | | | | | |
| Capacitance Tolerance | ±20% (at 120Hz, 20°C | | | | | | | | | | | |
| Leakage Current (at 20°C) | | | | | | | | | | | | |
| Dissipation Factor (Tanō at 120 Hz, 20°C) | Rated Voltage 6.3 10 16 25 35 50 63 100 160 200 250 350 400 450 Tanδ (max) 0.23 0.20 0.16 0.14 0.12 0.10 0.09 0.08 0.12 0.14 0.17 0.20 0.25 0.25 When the capacitance exceeds 1,000μF, 0.02 shall be added every 1,000μF increase. | | | | | | | | | | | |
| | Impedance ratio shall not exceed the values given in the table below. | | | | | | | | | | | |
| Low Temperature Characteristics (at 120Hz) | $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$ | | | | | | | | | | | |
| | $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$ | | | | | | | | | | | |
| Endurance | Test Time 2,000 Hrs (3,000 Hrs for ϕ D \geq 10mm) Capacitance Change With in ±20% of initial value Dissipation Factor Less than 200% of specified value Leakage Current Within specified value * The above Specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied with rated ripple current for 2,000 / 3,000 hours at 85°C. | | | | | | | | | | | |
| Shelf Life Test | Test Time Capacitance Change With in ±20% of initial value Dissipation Factor Less than 200% of specified value Leakage Current Within specified value * The above Specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 85°C without voltage applied. The rated voltage shall be applied to the capacitors before the measurements for 160 ~ 450V (Refer to JIS C 5101-4 4.1). | | | | | | | | | | | |
| Ripple Current & Frequency Multipliers | Freq. (Hz) 60 (50) 120 500 1k 10k up Under 100 0.70 1.00 1.30 1.40 1.50 100 < C ≤ 1,000 | | | | | | | | | | | |

Diagram of Dimensions



| Le | Lead Spacing and Diameter Unit: mm | | | | | | | | | | | |
|----|------------------------------------|-----|-----|-----|-----|---------|-----|-----|----|------|--|--|
| ς | ΦD | 5 | 6.3 | 8 | 10 | 12.5 | 16 | 18 | 22 | 25 | | |
| | Р | 2.0 | 2.5 | 3.5 | 5.0 | 5.0 | 7.5 | 7.5 | 10 | 12.5 | | |
| (| φd | 0 | .5 | | 0.6 | | 1.0 | | | | | |
| | α | | 1.0 | | L<2 | 0: 1.5, | 2.0 | | | | | |
| | β | 0.5 | | | | | | | | | | |

The case size of 12.5×16, 16×16, 16×20, 18×16, 18×20 and 18×25 are suitable for below diagram:



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Dimension & Permissible Ripple Current

Dimension: $\phi D \times L(mm)$

Ripple Current: mA/rms at 120 Hz, 85°C

| | | | | iolo i appio carrotti | | | | | | | | rappio carrona mi anno at 120 112, co t | | | | | |
|--------|----------|------------------|----------------|-----------------------|----------------|--------------------|----------------|--------------------|----------------|------------------|----------------|---|----------------|-------------------|------------|------------------|------------|
| V. DC | | 6.3V | (0J) | 10V (1A) | | 16V (1C) | | 25V (1E) | | 35V (1V) | | 50V (1H) | | 63V (1J) | | 100V (2A) | |
| μF | Contents | ϕ D×L | mA | ϕ D×L | mA | ϕ D×L | mA | ϕ D×L | mA | ϕ D×L | mA | ϕ D×L | mA | ϕ D×L | mA | ϕ D×L | mA |
| 2.2 | 2R2 | | | | | | | | | | | 5×11 | 29 | | | 5×11 | 33 |
| 3.3 | 3R3 | | | | | | | | | | | 5×11 | 35 | | | 5×11 | 40 |
| 4.7 | 4R7 | | | | | | | | | | | 5×11 | 42 | | | 5×11 | 48 |
| 10 | 100 | | | | | | | | | | | 5×11 | 65 | 5×11 | 70 | 5×11 | 59 |
| 22 | 220 | | | | | | | | | | | 5×11 | 95 | 6.3×11 | 115 | 6.3×11 8×11.5 | 115 135 |
| 33 | 330 | | | | | | | | | 5×11 | 108 | 6.3×11 5×11 | 136 125 | 6.3×11 | 140 | 8×11.5 | 145 |
| 47 | 470 | | | | | | | 5×11 | 115 | 5×11 | 130 | 6.3×11 | 165 | 6.3×11 | 170 | 10×12.5 | 235 |
| 100 | 101 | | | | | 5×11 | 160 | 6.3×11 | 190 | 6.3×11 | 210 | 8×11.5 | 260 | 8×11.5 10×12.5 | 245 320 | 10×16 | 325 |
| 220 | 221 | | | 5×11 | 220 | 6.3×11 | 260 | 8×11.5 | 320 | 8×11.5 | 385 | 10×12.5 | 455 | 10×16 | 490 | 12.5×20 16×16 | 640 625 |
| 330 | 331 | | | 6.3×11 | 290 | 6.3×11 | 290 | 8×11.5 | 440 | 10×12.5 | 490 | 10×16 | 585 | 10×20 12.5×16 | 710 675 | 16×20 18×16 | 695 685 |
| 470 | 471 | | | 6.3×11 | 350 | 8×11.5 | 440 | 10×12.5 | 545 | 10×16 | 740 | 10×20 12.5×16 | 755 610 | 16×16 12.5×20 | 910 900 | 16×25 | 910 |
| 1,000 | 102 | 8×11.5 | 540 | 10×12.5 8×11.5 | 650 550 | 10×12.5 | 635 | 10×20 12.5×16 | 955 830 | 12.5×20 16×16 | 1,145 1,010 | 12.5×25 16×20 | 1,340 1,160 | 16×20 | 1,260 | 18×40 | 1,820 |
| 2,200 | 222 | 10×16 | 845 | 10×20 12.5×16 | 1,070 970 | 12.5×16 16×16 | 930 1,160 | 12.5×25 16×16 | 1,540 1,150 | 16×20 | 1,390 | 16×35.5 | 1,960 | 18×31.5 | 2,040 | | |
| 3,300 | 332 | 10×20 12.5×16 | 1,185 960 | 12.5×20 | 1,420 | 12.5×20 16×16 | 1,450 1,240 | 16×20 | 1,490 | 16×31.5 18×25 | 2,070 1,970 | 18×35.5 | 2,500 | 18×40 | 2,575 | | |
| 4,700 | 472 | 12.5×20 | 1,545 | 12.5×25 16×16 | 1,780 1,420 | 16×20 18×16 | 1,600 1,820 | 16×25 18×25 | 2,100 2,170 | 18×35.5 | 2,700 | 22×40 | 3,040 | | | | |
| 6,800 | 682 | 12.5×25 | 1,880 | 16×20 18×20 | 1,700 1,870 | 16×25 18×20 | 2,280 1,890 | 16×35.5 18×31.5 | 2,475 2,550 | 22×40 | 2,900 | 22×45 | 3,185 | | | | |
| 10,000 | 103 | 16×20 18×20 | 2,000 2,020 | 16×25 18×25 | 2,150 2,370 | 18×31.5 16×35.5 | 2,590 2,450 | 18×40 | 3,080 | 22×45 | 3,400 | | | | | | |
| 15,000 | 153 | 16×31.5 18×25 | 2,460 2,375 | 16×40 18×31.5 | 2,730 2,620 | 18×40 | 3,100 | 22×45 25×40 | 3,780 3,850 | | | | | | | | |
| 22,000 | 223 | 18×31.5 | 2,780 | 18×40 | 3,370 | 22×40 | 3,900 | 25×45 | 4,290 | | | | | | | | |
| 33,000 | 333 | 22×40 | 3,700 | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

| V. DC | | 160V | (2C) | 200V | (2D) | 250V (2E) 350 | | 350V (2V) | | 400V (2G) | | 450V (2W) | |
|-------------|-----|------------------|------------|------------------|------------|------------------|------------|------------------|------------|-------------------|------------|-------------------|----------|
| μF Contents | | φD×L | mA | φD×L | mA | φD×L | mA | φD×L | mA | φD×L | mA | φD×L | mA |
| 1 | 010 | | | | | 5×11 | 18 | 5×11 | 18 | 5×11 | 22 | 6.3×11 | 25 |
| 2.2 | 2R2 | | | 5×11 | 29 | 6.3×11 | 33 | 6.3×11 | 33 | 6.3×11 | 33 | 8×11.5 | 45 |
| 3.3 | 3R3 | | | 6.3×11 | 46 | 6.3×11 | 46 | 8×11.5 | 50 | 8×11.5 | 50 | 10×12.5 | 65 |
| 4.7 | 4R7 | | | 6.3×11 | 50 | 8×11.5 | 55 | 8×11.5 | 60 | 8×11.5 10×12.5 | 55 80 | 8×11.5 10×12.5 | 55 80 |
| 10 | 100 | 8×11.5 | 75 | 8×11.5 | 81 | 10×12.5 | 100 | 10×16 | 110 | 10×16 | 110 | 10×20 | 140 |
| 22 | 220 | 10×12.5 | 130 | 10×12.5 | 135 | 10×16 | 150 | 12.5×16 | 185 | 12.5×20 | 200 | 12.5×25 | 300 |
| 33 | 330 | 10×16 | 175 | 10×16 | 180 | 10×20 12.5×16 | 215 220 | 12.5×20 16×16 | 245 260 | 16×16 | 260 | 16×20 | 270 |
| 47 | 470 | 10×20 12.5×16 | 230 250 | 10×20 12.5×16 | 240 250 | 12.5×20 | 290 | 16×20 18×16 | 340 310 | 16×20 | 340 | 16×31.5 | 390 |
| 68 | 680 | 12.5×20 | 330 | 12.5×20 16×16 | 330 370 | 12.5×25 | 370 | 16×25 18×20 | 420 410 | 16×31.5 | 435 | 16×35.5 | 460 |
| 100 | 101 | 12.5×25 | 440 | 16×20 18×16 | 460 450 | 16×25 | 510 | 16×31.5 18×25 | 540 520 | 16×40 18×35.5 | 560 570 | 18×35.5 | 570 |
| 150 | 151 | 16×25 | 620 | 16×25 18×20 | 620 605 | 16×31.5 18×25 | 625 630 | 18×35.5 | 640 | 18×40 | 670 | 22×45 | 800 |
| 220 | 221 | 16×31.5 18×25 | 790 760 | 16×35.5 | 830 | 16×40 18×35.5 | 840 890 | 22×40 | 920 | 22×45 25×40 | 960 980 | 25×45 | 1,030 |
| 330 | 331 | 18×35.5 | 985 | 18×40 | 1,150 | 22×40 | 1,200 | 25×45 | 1,270 | | | | |
| 470 | 471 | 18×40 | 1,150 | 22×40 | 1,400 | 22×45 | 1,470 | | | | | | |

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