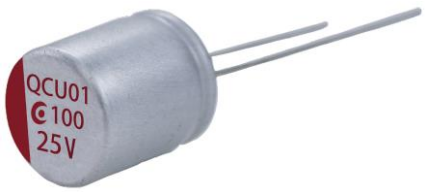
# ARQC Series AEC-Q200

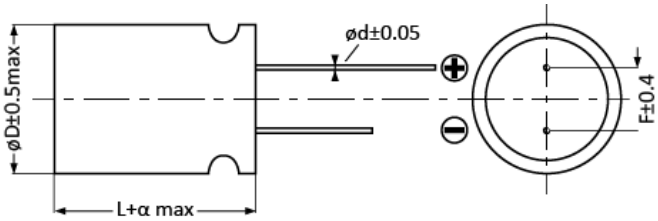


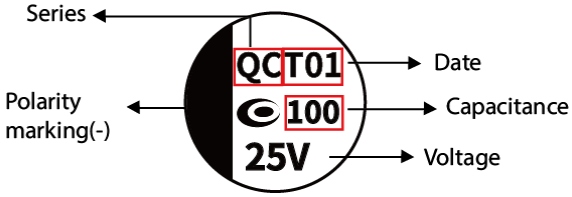

- Standard DIP type
- Rated Voltage:16~80V
- Endurance 4000hr at 125°C
- High reliability and high voltage are realized by hybrid electrolyte
- For high temperature and high reliability applications
- RoHS Compliant
- AEC-Q200 compliant

## Specification

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Category Temperature Range | -55~+125°C | Rated Voltage Range | 16 to 80Vdc | | | | | | |
| Rated Capacitance Range | 22 to 470 (μF) | Capacitance Tolerance | ±20% (M) | | | | | | |
| Surge Voltage | Rated voltage X 1.25 | Dissipation Factor (at 20°C 120Hz) | Rated Voltage (V) | 16 | 25 | 35 | 50 | 63 | 80 |
| | | | tan δ(max) | 0.16 | 0.14 | 0.12 | 0.1 | 0.08 | 0.08 |
| Leakage Current | Shall not exceed values shown in standard ratings (at 20°C after 2 mins.) | | | | | | | | |
| Endurance | 125°C, 4000hr, apply the rated ripple current without exceeding the rated voltage | | | | | | | | |
| | Appearance | No significant damage | | | | | | | |
| | Capacitance Change | ≦ ±30% of the initial value | | | | | | | |
| | DF(tanδ) | ≦ 200% of the initial specified value | | | | | | | |
| | ESR | ≦ 200% of the initial specified value | | | | | | | |
| | Leakage current | ≦ The initial specified value | | | | | | | |
| Damp Heat (Steady State) | 85±2°C, 85 to 90% RH, 1000~2000+24/-0 hr, voltage applied | | | | | | | | |
| | Size code | 06X7 | 08X8/10X9/10A2/10A6 | | | | | | |
| | Life time | 1000hrs | 2000hrs | | | | | | |
| | Characteristics | Performance | | | | | | | |
| | Appearance | No significant damage | | | | | | | |
| | Capacitance Change | ≦ ±20% of the initial value | ≦ ±30% of the initial value | | | | | | |
| | DF(tanδ) | ≦ 200% of the initial specified value | | | | | | | |
| | ESR | ≦ 200% of the initial specified value | | | | | | | |
| | Leakage current | ≦ The initial specified value | | | | | | | |
| Surge Voltage | 1,000 cycles and each one includes charge with surge voltage specified at 125±2°C for 0.5min through a protective resistor (R=1kΩ) and discharge for 5.5min. | | | | | | | | |
| | Appearance | No significant damage | | | | | | | |
| | Capacitance Change | ≦ ±20% of the initial value | | | | | | | |
| | DF(tanδ) | ≦ 200% of the initial specified value | | | | | | | |
| | ESR | ≦ 200% of the initial specified value | | | | | | | |
| | Leakage current | ≦ The initial specified value | | | | | | | |

## Dimensions and Marking




| Size code | ψD±0.5(mm) | L(mm) | α(mm) | ϕd±0.05(mm) | F±0.4(mm) | H±0.3(mm) |
|---|---|---|---|---|---|---|
| 06X7 | 6.3 | 8 | -0.5~1 | 0.6 | 2.5 | 3.2 |
| 08X8 | 8 | 8 | -0.5~1 | 0.6 | 3.5 | 3.2 |
| 10X9 | 10 | 9 | -0.5~1 | 0.6 | 5 | 3.2 |
| 10A2 | 10 | 12 | -0.5~1 | 0.6 | 5 | 3.2 |
| 10A6 | 10 | 16 | -0.5~1 | 0.6 | 5 | 3.2 |

# ARQC Series AEC-Q200

## Standard Ratings

| WV/Vdc (SV) | Cap (µF) | Size Code | Leakage Current (µA) | tanδ | ESR (mΩmax/20%, 100k to300kHz) | Rated Ripple Current (mArms/ 125°C /100kHz) | Part No. |
|---|---|---|---|---|---|---|---|
| 16 (20) | 820 | 10X9 | 131.2 | 0.16 | 18 | 2,800 | 160ARQC821M10X9 |
| 25 (31.3) | 100 | 06X7 | 25 | 0.14 | 30 | 1,400 | 250ARQC101M06X7 |
| | 150 | 06X7 | 37.5 | 0.14 | 30 | 1,800 | 250ARQC151M06X7 |
| | 220 | 08X8 | 55 | 0.14 | 27 | 2,900 | 250ARQC221M08X8 |
| | 270 | 08X8 | 67.5 | 0.14 | 27 | 2,900 | 250ARQC271M08X8 |
| | 330 | 10X9 | 82.5 | 0.14 | 20 | 3,500 | 250ARQC331M10X9 |
| | 470 | 10X9 | 117.5 | 0.14 | 20 | 3,500 | 250ARQC471M10X9 |
| | 470 | 10A2 | 117.5 | 0.14 | 14 | 3,500 | 250ARQC471M10A2 |
| 35 (43.8) | 47 | 06X7 | 16.5 | 0.12 | 35 | 1,400 | 350ARQC470M06X7 |
| | 68 | 06X7 | 23.8 | 0.12 | 35 | 1,400 | 350ARQC680M06X7 |
| | 100 | 06X7 | 35 | 0.12 | 35 | 1,700 | 350ARQC101M06X7 |
| | 100 | 08X8 | 35 | 0.12 | 27 | 1,900 | 350ARQC101M08X8 |
| | 150 | 08X8 | 52.5 | 0.12 | 27 | 2,900 | 350ARQC151M08X8 |
| | 180 | 08X8 | 63 | 0.12 | 27 | 2,900 | 350ARQC181M08X8 |
| | 220 | 10X9 | 77 | 0.12 | 20 | 2,800 | 350ARQC221M10X9 |
| | 270 | 10X9 | 94.5 | 0.12 | 20 | 3,500 | 350ARQC271M10X9 |
| | 330 | 10A2 | 115.5 | 0.12 | 20 | 3,500 | 350ARQC331M10X9 |
| | 330 | 10A2 | 115.5 | 0.12 | 14 | 3,500 | 350ARQC331M10A2 |
| | 470 | 10A2 | 164.5 | 0.12 | 14 | 3,500 | 350ARQC471M10A2 |
| | 470 | 10A6 | 164.5 | 0.12 | 11 | 4,000 | 350ARQC471M10A6 |
| 50 (62.5) | 33 | 06X7 | 16.5 | 0.10 | 40 | 1,100 | 500ARQC330M06X7 |
| | 47 | 08X8 | 23.5 | 0.10 | 30 | 1,250 | 500ARQC470M08X8 |
| | 68 | 08X8 | 34 | 0.10 | 30 | 2,700 | 500ARQC680M08X8 |
| | 100 | 10X9 | 50 | 0.10 | 23 | 2,900 | 500ARQC101M10X9 |
| | 120 | 10X9 | 60 | 0.10 | 25 | 2,900 | 500ARQC121M10X9 |
| | 150 | 10A2 | 75 | 0.10 | 17 | 2,000 | 500ARQC151M10A2 |
| | 180 | 10A2 | 90 | 0.10 | 17 | 3,200 | 500ARQC181M10A2 |
| | 220 | 10A6 | 110 | 0.10 | 13 | 3,700 | 500ARQC221M10A6 |
| 63 (78.8) | 22 | 06X7 | 13.9 | 0.08 | 80 | 900 | 630ARQC220M06X7 |
| | 33 | 08X8 | 20.8 | 0.08 | 40 | 1,000 | 630ARQC330M08X8 |
| | 47 | 08X8 | 29.6 | 0.08 | 32 | 2,400 | 630ARQC470M08X8 |
| | 56 | 10X9 | 35.3 | 0.08 | 30 | 2,800 | 630ARQC560M10X9 |
| | 68 | 10X9 | 42.8 | 0.08 | 30 | 2,800 | 630ARQC680M10X9 |
| | 82 | 10X9 | 51.7 | 0.08 | 30 | 2,800 | 630ARQC820M10X9 |
| | 100 | 10X9 | 63 | 0.08 | 30 | 2,800 | 630ARQC101M10X9 |
| | 120 | 10A2 | 75.6 | 0.08 | 19 | 3,000 | 630ARQC121M10A2 |
| | 150 | 10A6 | 94.5 | 0.08 | 15 | 3,500 | 630ARQC151M10A6 |
| 80 (100) | 22 | 08X8 | 17.6 | 0.08 | 45 | 1,050 | 800ARQC220M08X8 |
| | 47 | 10X9 | 37.6 | 0.08 | 33 | 1,360 | 800ARQC470M10X9 |

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.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 56 | 10X9 | 44.8 | 0.08 | 33 | 1,360 | 800ARQC560M10X9 |