# RQ series

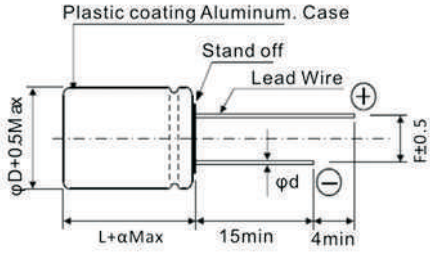
## 125℃ Guaranteed


This series has advanced characteristics in resistance to heat compared with the RG series.Suitable for use in increaseing device reliability.
Lead free-flow is supported.
RQ系列具有優異的熱穩定性，可承受125℃環境溫度，適合用於提高電子設備的可靠度。

## Specifications

| Items | Characteristics | |
|---|---|---|
| Operating Temp. Range | -55℃ ~ +125℃ | |
| Capacitance Range | 100 ~ 2700μF | |
| Capacitance Tolerance | M：±20% | |
| Rated Voltage Range | 2.5V ~ 16V DC | |
| Dissipation Factor At 120Hz,20℃ | Not to exceed the value specified | |
| Leakage Current | ≤0.02CV (μA, after 2 minutes) | |
| ESR(100K~300KHz) | Not to exceed the value specified | |
| Endurance 125℃ 2000h At Rated voltage | Capacitance Change | Within ±20% of the value before test |
| | Leakage current | Not to exceed the value specified |
| | ESR | Not to exceed 150% of the value specified |
| | Dissipation Factor | Not to exceed 150% of the value specified |
| Moisture Resistance Stored At 60℃, RH90~95%,2000h | Capacitance Change | Within ±20% of the value before test |
| | Leakage Current | Not to exceed the value specified |
| | ESR | Not to exceed 150% of the value specified |
| | Dissipation Factor | Not to exceed 150% of the value specified |

## Dimensions




Unit:mm

| φD×L | ΦD +0.5max. | α | F ±0.5 | Φd ±0.05 |
|---|---|---|---|---|
| 6.3×8 | 6.3 | 1.0 | 2.5 | 0.6 |
| 6.3×11 | 6.3 | 1.0 | 2.5 | 0.6 |
| 8×8 | 8.0 | 1.0 | 3.5 | 0.6 |
| 8×11.5 | 8.0 | 1.0 | 3.5 | 0.6 |
| 10×12.5 | 10.0 | 1.0 | 5.0 | 0.6 |

## Size List

| RV/v (SV) / CAP/μF | 2.5 (2.8) | 4 (4.6) | 6.3 (7.2) | 10 (11.5) | 16 (18.4) |
|---|---|---|---|---|---|
| 100 | | | | | 6.3×8 |
| 180 | | | | | 6.3×8 |
| 220 | | | | | 6.3×11 |
| 270 | | | | | 8×8/8×11.5 |
| 330 | | | | | 8×11.5 / 10×12.5 |
| 390 | | | | | 8×11.5 / 10×12.5 |
| 470 | | | 6.3×8 | 8×8 | 8×11.5 / 10×12.5 |
| 560 | | 6.3×8 | 6.3×8/8×8 | 8×8 | 10×12.5 |
| 680 | | 8×8 | 6.3×8/ 8×8 | 8×11.5 | 10×12.5 |
| 820 | 6.3×8 | 8×8 | 8×8/8×11.5 | 8×11.5 / 10×12.5 | 10×12.5 |
| 1000 | 8×8 | 8×8 | 8×8/8×11.5 | 10×12.5 | |
| 1200 | 8×8 | 8×11.5 / 10×12.5 | 8×11.5 / 10×12.5 | 10×12.5 | |
| 1500 | 8×11.5 | 10×12.5 | 10×12.5 | | |
| 2000 | 10×12.5 | 10×12.5 | | | |
| 2500 | 10×12.5 | | | | |
| 2700 | 10×12.5 | | | | |

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## Characteristics List

| W.V. (V) | Capacitance (μF) | L.C. (μA,2min) | tgδ (120Hz,20℃) | ESR (mΩ,100kHz) | Rated Ripple Current 100KHz(mA,r.m.s) 105℃<Tx≤125℃ | Allowable ripple current 100KHz(mA,r.m.s) Tx≤105℃ | Size ΦD×L(mm) | Part Number |
|---|---|---|---|---|---|---|---|---|
| 2.5 | 820 | 410 | 0.08 | 8 | 1770 | 5600 | 6.3×8 | RQ821M2R5E080□□ |
| | 1200 | 600 | 0.08 | 7 | 1929 | 6100 | 8×8 | RQ122M2R5F080□□ |
| | 1500 | 750 | 0.08 | 7 | 1929 | 6100 | 8×11.5 | RQ152M2R5F115□□ |
| | 2000 | 1000 | 0.08 | 7 | 2100 | 6640 | 10×12.5 | RQ202M2R5G125□□ |
| | 2500 | 1250 | 0.08 | 7 | 2100 | 6640 | 10×12.5 | RQ252M2R5G125□□ |
| | 2700 | 1350 | 0.08 | 7 | 2100 | 6640 | 10×12.5 | RQ272M2R5G125□□ |
| 4 | 560 | 448 | 0.08 | 8 | 1770 | 5600 | 6.3×8 | RQ561M004E080□□ |
| | 680 | 544 | 0.08 | 7 | 1929 | 6100 | 8×8 | RQ681M004F080□□ |
| | 820 | 656 | 0.08 | 7 | 1929 | 6100 | 8×8 | RQ821M004F080□□ |
| | 1000 | 800 | 0.08 | 7 | 1929 | 6100 | 8×8 | RQ102M004F080□□ |
| | 1200 | 960 | 0.08 | 7 | 1929 | 6100 | 8×11.5 | RQ122M004F115□□ |
| | 1200 | 960 | 0.08 | 7 | 2100 | 6640 | 10×12.5 | RQ122M004G125□□ |
| | 1500 | 1200 | 0.08 | 7 | 2100 | 6640 | 10×12.5 | RQ152M004G125□□ |
| | 2000 | 1600 | 0.08 | 7 | 2100 | 6640 | 10×12.5 | RQ202M004G125□□ |
| 6.3 | 470 | 592.2 | 0.08 | 8 | 1770 | 5600 | 6.3×8 | RQ471M6R3E080□□ |
| | 560 | 705.6 | 0.08 | 8 | 1770 | 5600 | 6.3×8 | RQ561M6R3E080□□ |
| | 680 | 856.8 | 0.08 | 8 | 1770 | 5600 | 6.3×8 | RQ681M6R3E080□□ |
| | 820 | 1033.2 | 0.10 | 7 | 1929 | 6100 | 8×8 | RQ821M6R3F080□□ |
| | 820 | 1033.2 | 0.10 | 7 | 1929 | 6100 | 8×11.5 | RQ821M6R3F115□□ |
| | 1000 | 1260 | 0.10 | 7 | 1929 | 6100 | 8×8 | RQ102M6R3F080□□ |
| | 1000 | 1260 | 0.10 | 7 | 1929 | 6100 | 8×11.5 | RQ102M6R3F115□□ |
| | 1200 | 1512 | 0.10 | 7 | 2100 | 6640 | 10×12.5 | RQ122M6R3G125□□ |
| | 1500 | 1890 | 0.10 | 7 | 2100 | 6640 | 10×12.5 | RQ152M6R3G125□□ |
| 10 | 470 | 940 | 0.08 | 7 | 1929 | 6100 | 8×8 | RQ471M010F080□□ |
| | 560 | 1120 | 0.10 | 7 | 1929 | 6100 | 8×8 | RQ561M010F080□□ |
| | 680 | 1360 | 0.10 | 7 | 1929 | 6100 | 8×11.5 | RQ681M010F115□□ |
| | 820 | 1640 | 0.10 | 7 | 1929 | 6100 | 8×11.5 | RQ821M010F115□□ |
| | 820 | 1640 | 0.10 | 7 | 2100 | 6640 | 10×12.5 | RQ821M010G125□□ |
| | 1000 | 2000 | 0.10 | 7 | 2100 | 6640 | 10×12.5 | RQ102M010G125□□ |
| | 1200 | 2400 | 0.10 | 7 | 2100 | 6640 | 10×12.5 | RQ122M010G125□□ |
| 16 | 100 | 320 | 0.12 | 12 | 920 | 2900 | 6.3×8 | RQ101M016E080□□ |
| | 180 | 576 | 0.12 | 13 | 920 | 2900 | 6.3×8 | RQ181M016E080□□ |
| | 220 | 704 | 0.12 | 13 | 1106 | 300 | 6.3×11 | RQ221M016E110□□ |
| | 270 | 864 | 0.12 | 13 | 1771 | 5600 | 8×11.5 | RQ271M016F115□□ |
| | 330 | 1056 | 0.12 | 13 | 1771 | 5600 | 8×11.5 | RQ331M016F115□□ |
| | 330 | 1056 | 0.12 | 12 | 1929 | 6100 | 10×12.5 | RQ331M016G125□□ |
| | 390 | 1248 | 0.12 | 13 | 1771 | 5600 | 8×11.5 | RQ391M016F115□□ |
| | 390 | 1248 | 0.12 | 12 | 1929 | 6100 | 10×12.5 | RQ391M016G125□□ |
| | 470 | 1504 | 0.12 | 13 | 1771 | 5600 | 8×11.5 | RQ471M016F115□□ |
| | 470 | 1504 | 0.12 | 12 | 1929 | 6100 | 10×12.5 | RQ471M016G125□□ |
| | 560 | 1792 | 0.12 | 12 | 1929 | 6100 | 10×12.5 | RQ561M016G125□□ |
| | 680 | 2176 | 0.12 | 12 | 1929 | 6100 | 10×12.5 | RQ681M016G125□□ |
| | 820 | 2624 | 0.12 | 12 | 1929 | 6100 | 10×12.5 | RQ821M016G125□□ |

## Frequency Coefficient for Ripple Current

| Frequency | 120Hz≤freq.<1KHz | 1KHz≤freq.<10KHz | 10KHz≤freq.<100KHz | 100KHz≤freq.<300KHz |
|---|---|---|---|---|
| Coefficient | 0.05 | 0.3 | 0.7 | 1 |