

GQB Series

- Endurance with ripple current : 1,000 hours at 150°C
- For automobile transmission, electric water pump and other high temperature applications.
- Rated voltage range : 25 & 35V, Nominal capacitance range : 560 to 3,600μF
- Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- RoHS2 Compliant
- AEC-Q200 compliant : Please contact Chemi-Con for more details, test data, information.

Higher temperature
Higher ripple current → **GQB**

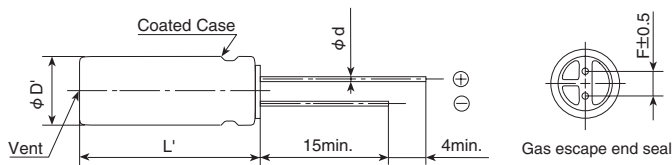


SPECIFICATIONS

| Items | Characteristics | | |
|--|---|--------------------------------------|------|
| Category | -40 to +150°C | | |
| Temperature Range | -40 to +150°C | | |
| Rated Voltage Range | 25, 35V _{dc} | | |
| Capacitance Tolerance | ±20% (M) (at 20°C, 120Hz) | | |
| Leakage Current | I=0.03CV or 4μA, whichever is greater. Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C, 1 minute) | | |
| Dissipation Factor (tan δ) | Rated voltage (V _{dc}) | 25V | 35V |
| | tan δ (Max.) | 0.14 | 0.12 |
| | When nominal capacitance exceeds 1,000μF, add 0.02 to the value above for each 1,000μF increase. (at 20°C, 120Hz) | | |
| Low Temperature Characteristics (Max. Impedance Ratio) | Rated voltage (V _{dc}) | 25V | 35V |
| | Z(-25°C)/Z(+20°C) | 2 | 2 |
| | Z(-40°C)/Z(+20°C) | 4 | 4 |
| | (at 120Hz) | | |
| Endurance 1 | The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for 1,000 hours at 150°C. | | |
| | Capacitance change | ≤ ±30% of the initial value | |
| | D.F. (tan δ) | ≤300% of the initial specified value | |
| | Leakage current | ≤ The initial specified value | |
| Endurance 2 | The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for 2,000 hours at 125°C. | | |
| | Capacitance change | ≤ ±30% of the initial value | |
| | D.F. (tan δ) | ≤300% of the initial specified value | |
| | Leakage current | ≤ The initial specified value | |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 500 hours at 150°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4. | | |
| | Capacitance change | ≤ ±30% of the initial value | |
| | D.F. (tan δ) | ≤300% of the initial specified value | |
| | Leakage current | ≤ The initial specified value | |

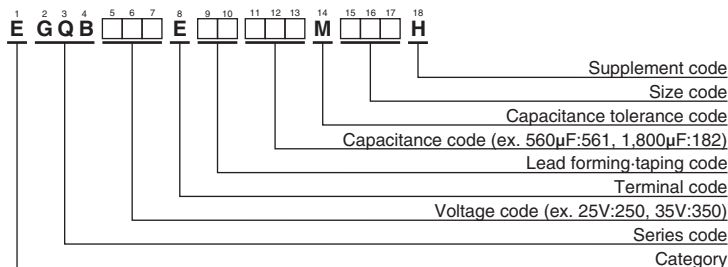
DIMENSIONS [mm]

- Terminal Code : E



| φD | 12.5 | 16 | 18 |
|-----|--|-----|-----|
| φd | 0.6 | 0.8 | 0.8 |
| F | 5.0 | 7.5 | 7.5 |
| φD' | φD±0.5 | | |
| L' | L ⁺ 1.5 L ⁻ 1.0 | | |

PART NUMBERING SYSTEM



Please refer to "Product code guide (radial lead type)"

GQBSeries

◆STANDARD RATINGS

| WV (V _{dc}) | Cap (μF) | Case size φ D×L(mm) | tan δ | ESR (Ω max./100kHz) | | Rated ripple current (mA _{rms} /100kHz) | | Part No. |
|--------------------------|-------------|------------------------|-------|------------------------|-------|---|-------|--------------------|
| | | | | 20°C | -40°C | 150°C | 125°C | |
| 25 | 1,100 | 12.5 × 20 | 0.14 | 0.12 | 1.4 | 1,100 | 2,620 | EGQB250E□□112MK20H |
| | 1,600 | 12.5 × 25 | 0.14 | 0.080 | 1.0 | 1,300 | 2,910 | EGQB250E□□162MK25H |
| | 1,800 | 16 × 20 | 0.14 | 0.070 | 1.0 | 1,460 | 3,590 | EGQB250E□□182ML20H |
| | 2,400 | 18 × 20 | 0.16 | 0.058 | 0.90 | 1,560 | 3,830 | EGQB250E□□242MM20H |
| | 2,700 | 16 × 25 | 0.16 | 0.050 | 0.80 | 1,720 | 4,560 | EGQB250E□□272ML25H |
| | 3,600 | 18 × 25 | 0.18 | 0.042 | 0.70 | 1,800 | 4,800 | EGQB250E□□362MM25H |
| 35 | 560 | 12.5 × 20 | 0.12 | 0.15 | 4.5 | 1,000 | 2,230 | EGQB350E□□561MK20H |
| | 750 | 12.5 × 25 | 0.12 | 0.12 | 3.4 | 1,200 | 2,680 | EGQB350E□□751MK25H |
| | 910 | 16 × 20 | 0.12 | 0.10 | 3.0 | 1,260 | 3,110 | EGQB350E□□911ML20H |
| | 1,200 | 18 × 20 | 0.12 | 0.084 | 2.0 | 1,320 | 3,250 | EGQB350E□□122MM20H |
| | 1,400 | 16 × 25 | 0.12 | 0.067 | 2.0 | 1,600 | 4,060 | EGQB350E□□142ML25H |
| | 1,800 | 18 × 25 | 0.12 | 0.058 | 1.4 | 1,680 | 4,500 | EGQB350E□□182MM25H |

□□ : Enter the appropriate lead forming or taping code.

◆RATED RIPPLE CURRENT MULTIPLIERS

● Frequency Multipliers

| Capacitance(μF) \ Frequency(Hz) | 120 | 1k | 10k | 100k |
|---------------------------------|------|------|------|------|
| 560 | 0.50 | 0.85 | 0.94 | 1.00 |
| 750 to 1,800 | 0.60 | 0.87 | 0.95 | 1.00 |
| 2,400 to 3,600 | 0.75 | 0.90 | 0.95 | 1.00 |

Please contact us for lifetime estimation.