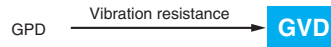


# GVD Series

- Structure of higher vibration resistance by GPD series (acceleration 392m/s<sup>2</sup>, 40G)
- Guaranteed short time at 150°C
- Designed for electric power steering and ECU (include engine control, direct fuel injection) etc.
- Rated voltage range : 25 to 100V, Capacitance range : 510 to 8,200μF
- Solvent resistant type
- RoHS2 Compliant
- AEC-Q200 compliant : Please contact Chemi-Con for more details, test data, information.

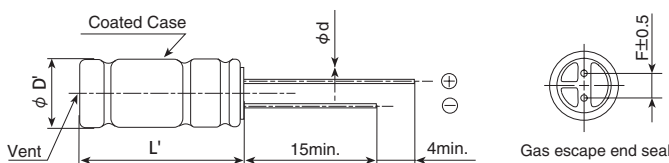


## SPECIFICATIONS

| Items   | Characteristics  |  |
|---|--|--|
| <b>Category</b>   |  |  |
| <b>Temperature Range</b>                                      | -40 to +135°C  |  |
| <b>Rated Voltage Range</b>                                    | 25 to 100V <sub>dc</sub>   |  |
| <b>Capacitance Tolerance</b>                                  | ±20% (M) (at 20°C, 120Hz)  |  |
| <b>Leakage Current</b>  | I=0.03CV or 4μA, whichever is greater.<br>Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C, 1 minute)  |  |
| <b>Dissipation Factor (tan δ)</b>                             | Rated voltage (V <sub>dc</sub> )   |  |
|   | tan δ (Max.)   |  |
|   | When nominal capacitance exceeds 1,000μF, add 0.02 to the value above for each 1,000μF increase. (at 20°C, 120Hz)  |  |
| <b>Low Temperature Characteristics (Max. Impedance Ratio)</b> | Rated voltage (V <sub>dc</sub> )   |  |
|   | Z(-25°C)/Z(+20°C)  |  |
|   | Z(-40°C)/Z(+20°C)  |  |
| <b>Endurance 1</b>  | 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 the specified period of time at 125°C or 135°C.  |  |
|   | Time   |  |
|   | Capacitance change   |  |
|   | D.F. (tan δ)   |  |
| <b>Endurance 2</b>  | The following specifications shall be satisfied when the capacitors are restored to 20°C after the test condition that the rated voltage is applied for 100 hours at 150°C and DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for the specified period of time at 125°C or 135°C. |  |
|   | Time   |  |
|   | Capacitance change   |  |
|   | D.F. (tan δ)   |  |
| <b>Shelf Life</b>   | The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 125°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   |  |
|   | D.F. (tan δ)   |  |
|   | Leakage current  |  |
| <b>Vibration</b>  | The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to vibration test (vibration profile shown below) at room temperature (15 to 35°C).   |  |
|   | Capacitance change   |  |
|   | D.F. (tan δ)   |  |
|   | Leakage current  |  |
|   | Vibration profile  |  |
|   | Vibration frequency range  |  |
|   | Amplitude or Acceleration  |  |
|   | Sweep rate   |  |
|   | Direction and period of motion   |  |
|   | Fixation   |  |

## DIMENSIONS [mm]

- Terminal Code : E

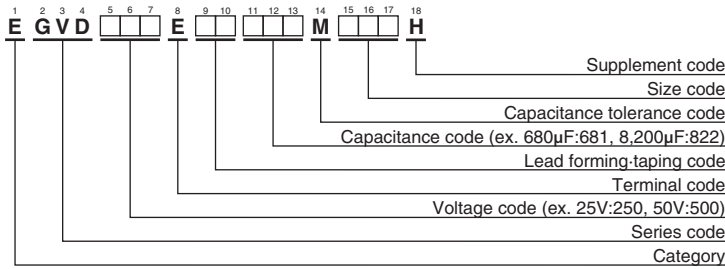


|     |            |
|-----|------------|
| φD  | 18         |
| φd  | 0.8        |
| F   | 7.5        |
| φD' | φD+0.5max. |
| L'  | L+1.5max.  |

\* Please contact us about lead formings and mounting methods.

**GVD**Series

◆PART NUMBERING SYSTEM



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

◆STANDARD RATINGS

| WV<br>(V <sub>ac</sub> ) | Cap<br>(µF) | Case size<br>φ D × L (mm) | tan δ | ESR<br>(Ω max/100kHz) |       | Rated ripple current<br>(mA rms/100kHz) |       | Part No.           |
|--------------------------|-------------|---------------------------|-------|-----------------------|-------|---|-------|--------------------|
|                          |             |                           |       | 20°C                  | -40°C | 125°C                                   | 135°C |                    |
| 25                       | 6,200       | 18 × 30                   | 0.24  | 0.023                 | 0.19  | 5,380                                   | 3,330 | EGVD250E□□622MM30H |
|                          | 8,200       | 18 × 35.5                 | 0.28  | 0.019                 | 0.13  | 6,110                                   | 3,750 | EGVD250E□□822MMP1H |
| 35                       | 3,600       | 18 × 30                   | 0.16  | 0.023                 | 0.19  | 5,380                                   | 3,330 | EGVD350E□□362MM30H |
|                          | 4,700       | 18 × 35.5                 | 0.18  | 0.019                 | 0.13  | 6,110                                   | 3,750 | EGVD350E□□472MMP1H |
| 50                       | 2,000       | 18 × 30                   | 0.12  | 0.029                 | 0.26  | 5,050                                   | 2,910 | EGVD500E□□202MM30H |
|                          | 2,400       | 18 × 35.5                 | 0.12  | 0.024                 | 0.20  | 5,760                                   | 3,330 | EGVD500E□□242MMP1H |
| 63                       | 1,300       | 18 × 30                   | 0.10  | 0.029                 | 0.18  | 3,930                                   | 3,100 | EGVD630E□□132MM30H |
|                          | 1,800       | 18 × 35.5                 | 0.10  | 0.024                 | 0.14  | 4,920                                   | 3,520 | EGVD630E□□182MMP1H |
| 80                       | 820         | 18 × 30                   | 0.08  | 0.029                 | 0.18  | 3,930                                   | 3,100 | EGVD800E□□821MM30H |
|                          | 1,200       | 18 × 35.5                 | 0.08  | 0.024                 | 0.14  | 4,920                                   | 3,520 | EGVD800E□□122MMP1H |
| 100                      | 510         | 18 × 30                   | 0.08  | 0.038                 | 0.25  | 3,800                                   | 2,830 | EGVD101E□□511MM30H |
|                          | 680         | 18 × 35.5                 | 0.08  | 0.030                 | 0.19  | 4,550                                   | 3,210 | EGVD101E□□681MMP1H |

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

◆RATED RIPPLE CURRENT MULTIPLIERS

● Frequency Multipliers

| Capacitance(µF) | Frequency(Hz) |      |      |      |
|-----------------|---------------|------|------|------|
|                 | 120           | 1k   | 10k  | 100k |
| 510             | 0.50          | 0.85 | 0.94 | 1.00 |
| 680 to 2,000    | 0.60          | 0.87 | 0.95 | 1.00 |
| 2,400 to 3,600  | 0.75          | 0.90 | 0.95 | 1.00 |
| 4,700 to 8,200  | 0.85          | 0.95 | 0.98 | 1.00 |

Please contact us for lifetime estimation.