### GVD Series

- Structure of higher vibration resistance by GPD series (acceleration 392m/s², 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

<table>
<thead>
<tr>
<th>Items</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
<td>Temperature Range</td>
</tr>
<tr>
<td></td>
<td>-40 to +135°C</td>
</tr>
<tr>
<td>Rated Voltage Range</td>
<td>25 to 100Vdc</td>
</tr>
<tr>
<td>Capacitance Tolerance</td>
<td>±20% (Max.)</td>
</tr>
</tbody>
</table>

#### Leakage Current

$I=0.03CV$ or $4µA$, whichever is greater:

$\tan \delta = 0.14$ (Max.)

When nominal capacitance exceeds 1,000µF, add 0.02 to the value above for each 1,000µF increase.

#### Dissipation Factor ($\tan \delta$)

- Rated voltage ($V_{dc}$):
  - 25V, 35V, 50V, 63V, 80V, 100V
- $\tan \delta$ (Max.):
  - 0.14, 0.12, 0.10, 0.08, 0.08
- When nominal capacitance exceeds 1,000µF, add 0.02 to the value above for each 1,000µF increase.

#### Low Temperature Characteristics

- Rated voltage ($V_{dc}$):
  - 25V, 35V, 50V, 63V, 80V, 100V
- $Z(-25°C)/Z(+20°C)$:
  - 2 2 2 2 2 2
- $Z(-40°C)/Z(+20°C)$:
  - 4 4 4 4 4 4

#### Endurance

- Time:
  - 125°C: 25 to 100Vdc: 3,000hours
  - 135°C: 25 to 50Vdc: 3,000hours
  - 63 to 100Vdc: 2,000hours
- Capacitance change:
  - $\leq 30\%$ of the initial value
- D.F. ($\tan \delta$):
  - $\leq 300\%$ of the initial specified value
- Leakage current:
  - $\leq$ The initial specified value

#### Endurance 2

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.

#### Shelf Life

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.

#### Vibration

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).

### DIMENSIONS [mm]

- Terminal Code : E

* Please contact us about lead formings and mounting methods.
## PART NUMBERING SYSTEM

- **Supplement code**
- **Size code**
- **Capacitance tolerance code**
- **Capacitance code** (ex. 680µF: 681, 8,200µF: 822)
- **Lead forming·taping code**
- **Terminal code**
- **Voltage code** (ex. 25V: 250, 50V: 500)
- **Series code**
- **Category**

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### STANDARD RATINGS

<table>
<thead>
<tr>
<th>WV (V&lt;sub&gt;dc&lt;/sub&gt;)</th>
<th>Cap (µF)</th>
<th>Case size φD x L (mm)</th>
<th>tan δ</th>
<th>ESR (Ωmax/100kHz)</th>
<th>Rated ripple current (mAmps/100kHz)</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>6,200</td>
<td>18 x 30</td>
<td>0.24</td>
<td>0.023</td>
<td>0.19</td>
<td>EGVD250E□□□H622MM30H</td>
</tr>
<tr>
<td></td>
<td>8,200</td>
<td>18 x 35.5</td>
<td>0.28</td>
<td>0.019</td>
<td>0.13</td>
<td>EGVD250E□□□H622MMP1H</td>
</tr>
<tr>
<td>35</td>
<td>3,600</td>
<td>18 x 30</td>
<td>0.16</td>
<td>0.023</td>
<td>0.19</td>
<td>EGVD350E□□□H362MM30H</td>
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<tr>
<td></td>
<td>4,700</td>
<td>18 x 35.5</td>
<td>0.18</td>
<td>0.019</td>
<td>0.13</td>
<td>EGVD350E□□□H472MMP1H</td>
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<tr>
<td>50</td>
<td>2,000</td>
<td>18 x 30</td>
<td>0.12</td>
<td>0.029</td>
<td>0.26</td>
<td>EGVD500E□□□H202MM30H</td>
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<tr>
<td></td>
<td>2,400</td>
<td>18 x 35.5</td>
<td>0.12</td>
<td>0.024</td>
<td>0.20</td>
<td>EGVD500E□□□H242MMP1H</td>
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<tr>
<td>63</td>
<td>1,300</td>
<td>18 x 30</td>
<td>0.10</td>
<td>0.029</td>
<td>0.18</td>
<td>EGVD630E□□□H132MM30H</td>
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<tr>
<td></td>
<td>1,600</td>
<td>18 x 35.5</td>
<td>0.10</td>
<td>0.024</td>
<td>0.14</td>
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<td>80</td>
<td>820</td>
<td>18 x 30</td>
<td>0.08</td>
<td>0.029</td>
<td>0.18</td>
<td>EGVD800E□□□H821MM30H</td>
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<tr>
<td></td>
<td>1,200</td>
<td>18 x 35.5</td>
<td>0.08</td>
<td>0.024</td>
<td>0.14</td>
<td>EGVD800E□□□H122MMP1H</td>
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<tr>
<td>100</td>
<td>510</td>
<td>18 x 30</td>
<td>0.08</td>
<td>0.038</td>
<td>0.25</td>
<td>EGVD101E□□□H511MM30H</td>
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<tr>
<td></td>
<td>680</td>
<td>18 x 35.5</td>
<td>0.08</td>
<td>0.030</td>
<td>0.19</td>
<td>EGVD101E□□□H681MMP1H</td>
</tr>
</tbody>
</table>

**ESR**

- WV (V<sub>dc</sub>): Enter the appropriate lead forming or taping code.

### RATED RIPPLE CURRENT MULTIPLIERS

**Frequency Multipliers**

<table>
<thead>
<tr>
<th>Frequency&lt;sup&gt;1&lt;/sup&gt;</th>
<th>120</th>
<th>1k</th>
<th>10k</th>
<th>100k</th>
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</thead>
<tbody>
<tr>
<td>510</td>
<td>0.50</td>
<td>0.85</td>
<td>0.94</td>
<td>1.00</td>
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<tr>
<td>680 to 2,000</td>
<td>0.60</td>
<td>0.87</td>
<td>0.95</td>
<td>1.00</td>
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<tr>
<td>2,400 to 3,600</td>
<td>0.75</td>
<td>0.90</td>
<td>0.95</td>
<td>1.00</td>
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<tr>
<td>4,700 to 8,200</td>
<td>0.85</td>
<td>0.95</td>
<td>0.98</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Please contact us for lifetime estimation.

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1. Frequency Multipliers

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Vibration resistant structure, 135℃