

**PEV SERIES**
**NEW**
**Load Life : 105°C 10000 hours (Hybrid Type) , Chip Type**
**◆FEATURES**

- High Voltage (∼63Vdc), Ultra Low ESR, High Ripple Current, Miniaturized.
- Lead free reflow soldering is available
- RoHS compliance.


**◆SPECIFICATIONS**

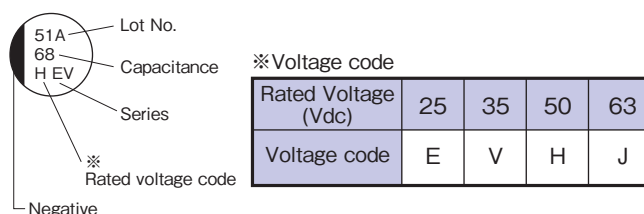
| Items                                                   | Characteristics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                                   |                    |                                                    |        |                                                    |                 |                                            |
|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------------------------|--------------------|----------------------------------------------------|--------|----------------------------------------------------|-----------------|--------------------------------------------|
| Category Temperature Range                              | −55∼+105°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                                   |                    |                                                    |        |                                                    |                 |                                            |
| Rated Voltage Range                                     | 25∼63Vdc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                                   |                    |                                                    |        |                                                    |                 |                                            |
| Capacitance Tolerance                                   | ±20% (20°C, 120Hz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                                   |                    |                                                    |        |                                                    |                 |                                            |
| Leakage Current(MAX)                                    | The value is shown in "STANDARD SIZE" table (After 2 minutes)                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                                   |                    |                                                    |        |                                                    |                 |                                            |
| (tanδ)<br>Dissipation Factor(MAX)                       | The value is shown in "STANDARD SIZE" table (20°C, 120Hz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                                   |                    |                                                    |        |                                                    |                 |                                            |
| Endurance                                               | <p>After applying rated voltage with rated ripple current for 10000 hours at 105°C, the capacitors shall meet the following requirements.</p> <table border="1"> <tr> <td>Capacitance Change</td><td>Within ±30% of the initial value.</td></tr> <tr> <td>Dissipation Factor</td><td>Not more than 200% of the initial specified value.</td></tr> <tr> <td>E.S.R.</td><td>Not more than 200% of the initial specified value.</td></tr> <tr> <td>Leakage Current</td><td>Not more than the initial specified value.</td></tr> </table> | Capacitance Change | Within ±30% of the initial value. | Dissipation Factor | Not more than 200% of the initial specified value. | E.S.R. | Not more than 200% of the initial specified value. | Leakage Current | Not more than the initial specified value. |
| Capacitance Change                                      | Within ±30% of the initial value.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |                                   |                    |                                                    |        |                                                    |                 |                                            |
| Dissipation Factor                                      | Not more than 200% of the initial specified value.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                                   |                    |                                                    |        |                                                    |                 |                                            |
| E.S.R.                                                  | Not more than 200% of the initial specified value.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                                   |                    |                                                    |        |                                                    |                 |                                            |
| Leakage Current                                         | Not more than the initial specified value.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                                   |                    |                                                    |        |                                                    |                 |                                            |
| Biased Humidity                                         | <p>After applying rated voltage for 2000 hours at 85°C and humidity of 85%, the capacitors shall meet the following requirements.</p> <table border="1"> <tr> <td>Capacitance Change</td><td>Within ±30% of the initial value.</td></tr> <tr> <td>Dissipation Factor</td><td>Not more than 200% of the initial specified value.</td></tr> <tr> <td>E.S.R.</td><td>Not more than 200% of the initial specified value.</td></tr> <tr> <td>Leakage Current</td><td>Not more than the initial specified value.</td></tr> </table>         | Capacitance Change | Within ±30% of the initial value. | Dissipation Factor | Not more than 200% of the initial specified value. | E.S.R. | Not more than 200% of the initial specified value. | Leakage Current | Not more than the initial specified value. |
| Capacitance Change                                      | Within ±30% of the initial value.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |                                   |                    |                                                    |        |                                                    |                 |                                            |
| Dissipation Factor                                      | Not more than 200% of the initial specified value.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                                   |                    |                                                    |        |                                                    |                 |                                            |
| E.S.R.                                                  | Not more than 200% of the initial specified value.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                                   |                    |                                                    |        |                                                    |                 |                                            |
| Leakage Current                                         | Not more than the initial specified value.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                                   |                    |                                                    |        |                                                    |                 |                                            |
| Low Temperature Characteristics<br>Impedance Ratio(MAX) | $Z(-55^{\circ}\text{C})/Z(+20^{\circ}\text{C}) \leq 2.0$ (100kHz)<br>$Z(-25^{\circ}\text{C})/Z(+20^{\circ}\text{C}) \leq 1.5$                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                                   |                    |                                                    |        |                                                    |                 |                                            |

**◆PART NUMBER**

|                      |                      |                      |                         |                      |                      |
|----------------------|----------------------|----------------------|-------------------------|----------------------|----------------------|
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/>    | <input type="text"/> | <input type="text"/> |
| Rated Voltage        | PEV Series           | Capacitance          | M Capacitance Tolerance | Option               | DxL Case Size        |

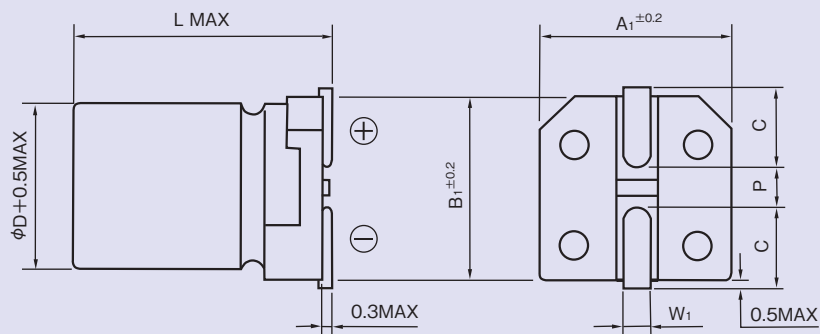
**◆MULTIPLIER FOR RIPPLE CURRENT**

| Frequency (Hz) | 120  | 1k   | 10k  | 100k≤ |
|----------------|------|------|------|-------|
| Coefficient    | 0.05 | 0.30 | 0.70 | 1.00  |

**◆MARKING**


**◆DIMENSIONS**

(mm)



| $\phi D$ | 8       | 10      |
|----------|---------|---------|
| L        | 10.5    | 10.5    |
| A1       | 8.3     | 10.3    |
| B1       | 8.3     | 10.3    |
| C        | 2.9     | 3.2     |
| W1       | 0.8~1.1 | 0.8~1.1 |
| P        | 3.1     | 4.5     |

※Vibration proof package is also available. For details, please refer to chip aluminum electrolytic capacitors section.

**◆STANDARD SIZE**

| Rated Voltage<br>(Vdc) | Capacitance<br>( $\mu F$ ) | Size<br>$\phi D \times L$ (mm) | ( $\tan \delta$ )<br>(120Hz, 20°C) | Leakage Current<br>( $\mu A/2min$ ) | E.S.R.<br>(m $\Omega$ max/20°C, 100kHz) | Rated Ripple Current<br>(mA <sub>rms</sub> /105°C, 100kHz) |
|------------------------|----------------------------|--------------------------------|------------------------------------|-------------------------------------|-----------------------------------------|------------------------------------------------------------|
| 25                     | 220                        | 8×10.5                         | 0.14                               | 55.0                                | 27                                      | 2300                                                       |
|                        | 330                        | 10×10.5                        | 0.14                               | 82.5                                | 20                                      | 2500                                                       |
| 35                     | 150                        | 8×10.5                         | 0.12                               | 52.5                                | 27                                      | 2300                                                       |
|                        | 270                        | 10×10.5                        | 0.12                               | 94.5                                | 20                                      | 2500                                                       |
| 50                     | 68                         | 8×10.5                         | 0.10                               | 34.0                                | 30                                      | 1800                                                       |
|                        | 100                        | 10×10.5                        | 0.10                               | 50.0                                | 28                                      | 2000                                                       |
| 63                     | 33                         | 8×10.5                         | 0.08                               | 20.8                                | 40                                      | 1700                                                       |
|                        | 56                         | 10×10.5                        | 0.08                               | 35.3                                | 30                                      | 1800                                                       |