

**PZF SERIES**
**Load Life : 125°C 4000 hours (Hybrid Type), Radial Lead Type**

- High Voltage(∼63Vdc), Ultra Low ESR, High Ripple Current, Miniaturized.
- AEC-Q200.

 RoHS  
compliance

**◆SPECIFICATIONS**

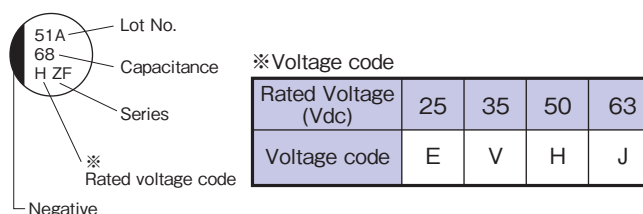
| Items                                                | Characteristics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                                   |                    |                                                    |        |                                                    |                 |                                            |
|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------------------------|--------------------|----------------------------------------------------|--------|----------------------------------------------------|-----------------|--------------------------------------------|
| Category Temperature Range                           | −55∼+125°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)                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                                   |                    |                                                    |        |                                                    |                 |                                            |
| Dissipation Factor(MAX) (tanδ)                       | The value is shown in "STANDARD SIZE" table (20°C, 120Hz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |                                   |                    |                                                    |        |                                                    |                 |                                            |
| Endurance                                            | After applying rated voltage with rated ripple current for 4000 hours at 125°C, the capacitors shall meet the following requirements. <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                                      | After applying rated voltage for 2000 hours at 85°C and humidity of 85%, the capacitors shall meet the following requirements. <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 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"/> | <input type="text"/> |
| Rated Voltage        | PZF Series           | Capacitance          | M Capacitance Tolerance | Option               | Lead Forming         | Case Size            |

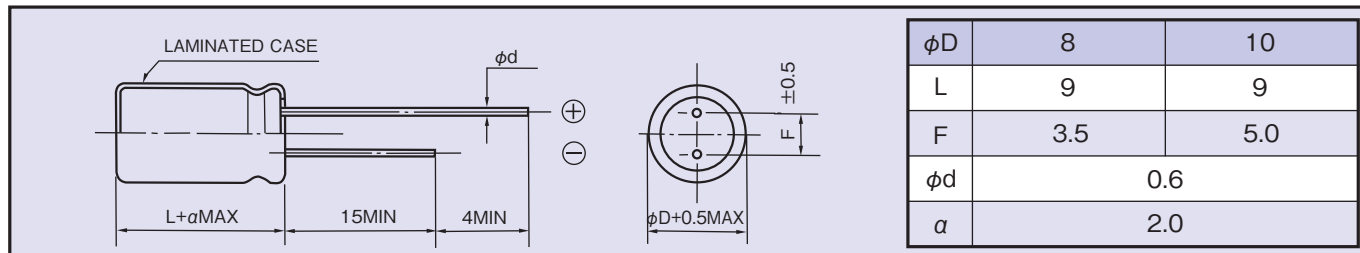
**◆MULTIPLIER FOR RIPPLE CURRENT**

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

**◆MARKING**


**◆DIMENSIONS**

(mm)


**◆STANDARD SIZE**

| Rated Voltage<br>(Vdc) | Capacitance<br>( $\mu\text{F}$ ) | Size<br>$\phi D \times L$ (mm) | (tan $\delta$ )<br>(120Hz, 20°C) | Leakage Current<br>( $\mu\text{A}/2\text{min}$ ) | E.S.R.(m $\Omega$ ,max) |              | Rated Ripple Current<br>(mA r.m.s./125°C, 100kHz) |
|------------------------|----------------------------------|--------------------------------|----------------------------------|--------------------------------------------------|-------------------------|--------------|---------------------------------------------------|
|                        |                                  |                                |                                  |                                                  | 20°C, 100kHz            | -40°C, 10kHz |                                                   |
| 25                     | 220                              | 8×9                            | 0.14                             | 55.0                                             | 27                      | 41           | 1600                                              |
|                        | 330                              | 10×9                           | 0.14                             | 82.5                                             | 20                      | 30           | 2000                                              |
| 35                     | 150                              | 8×9                            | 0.12                             | 52.5                                             | 27                      | 41           | 1600                                              |
|                        | 270                              | 10×9                           | 0.12                             | 94.5                                             | 20                      | 30           | 2000                                              |
| 50                     | 68                               | 8×9                            | 0.10                             | 34.0                                             | 30                      | 45           | 1250                                              |
|                        | 100                              | 10×9                           | 0.10                             | 50.0                                             | 28                      | 42           | 1600                                              |
| 63                     | 33                               | 8×9                            | 0.08                             | 20.8                                             | 40                      | 60           | 1100                                              |
|                        | 56                               | 10×9                           | 0.08                             | 35.3                                             | 30                      | 45           | 1400                                              |