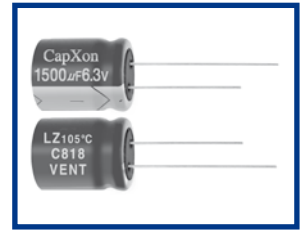


LZ Series Ultra Low Impedance

Features

- ◆ Ultra low impedance in 100KHz.
- ◆ Allow higher ripple current applied due to ultra low impedance.
- ◆ Load life 2000hrs at 105°C
- ◆ Suitable for application of mother board, computer peripheral etc.
- ◆ For more details, please refer to CapXon Engineering Bulletin No. 133
- ◆ RoHS Compliant



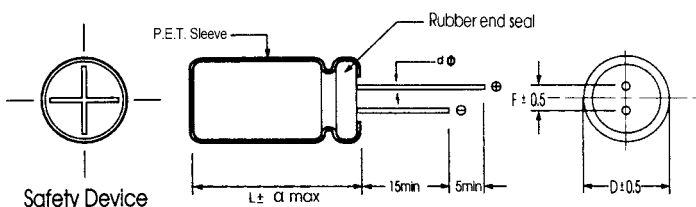
Specifications

| Item | Performance Characteristics | | | | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|----|----|---|---|---|---|
| Operating Temperature Range | -40 ~ +105°C | | | | | | | | |
| Rated Voltage Range | 6.3 ~ 25V with rate working voltage applied | | | | | | | | |
| Capacitance Range | 220 to 3300 μ F | | | | | | | | |
| Capacitance Tolerance | $\pm 20\%$ (20°C, 120Hz) | | | | | | | | |
| Leakage Current (+20°C, max.) | $I \leq 0.01CV$ or $3 \mu A$ After 2 minutes whichever is greater measured | | | | | | | | |
| Dissipation Factor ($\tan \delta$, at 20°C, 120Hz) | Rated Voltage(V) | 6.3 | 10 | 16 | 25 | | | | |
| | D.F. (%) max | 14 | 12 | 10 | 9 | | | | |
| For capacitance > 1000 μ F, add 2% per another 1000 μ F | | | | | | | | | |
| Low Temperature Characteristics (at 120Hz) | Impedance ratio max | | | | | | | | |
| | Rated Voltage(V) | 6.3 | 10 | 16 | 25 | | | | |
| | Z-25°C / Z+20°C | 4 | 3 | 2 | 2 | | | | |
| Z-40°C / Z+20°C | | | | | | 6 | 4 | 3 | 3 |
| For Capacitance Value > 1000 μ F, add 0.5 per another 1000 μ F for -25°C / +20°C add 1 per another 1000 μ F for -40°C / +20°C | | | | | | | | | |
| Load Life | Test Conditions Duration : 2000 hrs Ambient temperature : +105°C Applied voltage : Rated DC working voltage After test requirement at +20°C Capacitance change : Within $\pm 25\%$ of the initial measured value Dissipation factor : Not exceed 200% of the initial specified value Leakage current : Not exceed the specified value | | | | | | | | |
| Shelf Life | Test Conditions Duration : 1000 hrs Ambient temperature : +105°C After test requirement at +20°C Capacitance change : Within $\pm 25\%$ of the initial measured value Dissipation factor : Not exceed 200% of the initial specified value Leakage current : Not exceed the specified value | | | | | | | | |

Multiplier for Ripple Current vs. Frequency

| CAP(μ F) \ Frequency(Hz) | 120Hz | 1KHz | 10KHz | 100KHz |
|--------------------------------|-------|------|-------|--------|
| 100 ~ 330 μ F | 0.40 | 0.75 | 0.93 | 1.00 |
| 390 ~ 1000 μ F | 0.50 | 0.85 | 0.95 | 1.00 |
| 1200 ~ 3300 μ F | 0.55 | 0.90 | 0.98 | 1.00 |

Diagram of Dimensions:(unit:mm)



| | | |
|----------|---------------|--------------------|
| D ϕ | 8 | 10 |
| F | 3.5 | 5.0 |
| d ϕ | L < 20 0.5 | L \geq 20 0.6 |
| | 0.6 | |

| | | | | |
|----------|--------|----------|---------------|--------|
| α | D < 18 | D = 18 | | D > 18 |
| | | L < 35.5 | L \geq 35.5 | |
| | 1.5 | 1.5 | 2.0 | 2.0 |

Case Size

| | | ϕ DxL(mm) | | | | | | | | |
|----|---------------|----------------|--------|-----------|---------|--------|-----------|---------|--------|-----------|
| WV | Cap(μ F) | 6.3 | | | 10 | | | 16 | | |
| | | Size | Ripple | Impedance | Size | Ripple | Impedance | Size | Ripple | Impedance |
| | 330 | | | | | | | 8X11.5 | 1080 | 0.038 |
| | 470 | | | | 8X11.5 | 1080 | 0.038 | 8X11.5 | 1080 | 0.038 |
| | 560 | 8x11.5 | 1080 | 0.038 | 8X11.5 | 1080 | 0.038 | 10X12.5 | 1500 | 0.027 |
| | 680 | 8x11.5 | 1080 | 0.038 | 8X11.5 | 1080 | 0.038 | 8X16 | 1450 | 0.029 |
| | 820 | 8x11.5 | 1080 | 0.038 | 10X12.5 | 1500 | 0.027 | 8X16 | 1450 | 0.029 |
| | 1000 | 8x11.5 | 1080 | 0.038 | 10X12.5 | 1450 | 0.029 | 10X12.5 | 1500 | 0.027 |
| | 1200 | 8x16 | 1100 | 0.036 | 8X16 | 1450 | 0.029 | 10X16 | 1910 | 0.018 |
| | 1500 | 10x12.5 | 1500 | 0.027 | 10X12.5 | 1500 | 0.027 | 10X20 | 2540 | 0.017 |
| | 1800 | 8x16 | 1450 | 0.029 | 8X20 | 1850 | 0.020 | 10X20 | 2540 | 0.015 |
| | 2200 | 8x20 | 1850 | 0.020 | 8X20 | 1850 | 0.020 | | | |
| | 2700 | 10x12.5 | 1500 | 0.027 | 10X16 | 1910 | 0.018 | | | |
| | 3300 | 10x16 | 1910 | 0.018 | 10X20 | 2540 | 0.016 | 10X25 | 2800 | 0.013 |
| | | 8x20 | 1850 | 0.020 | 10X20 | 2540 | 0.015 | | | |
| | | 10x16 | 1910 | 0.018 | 10X25 | 2800 | 0.014 | | | |
| | | 10x20 | 2540 | 0.013 | | | | | | |
| | | 10x30 | 2800 | 0.012 | | | | | | |

| WV | Cap(μ F) | 25 | | |
|----|---------------|---------|--------|-----------|
| | | Size | Ripple | Impedance |
| | 220 | 8X11.5 | 1080 | 0.032 |
| | 270 | 8X11.5 | 1150 | 0.031 |
| | 330 | 8X11.5 | 1450 | 0.029 |
| | 470 | 10X12.5 | 1850 | 0.027 |
| | 560 | 8X20 | 1720 | 0.020 |
| | 680 | 10X12.5 | 1440 | 0.025 |
| | 820 | 10X16 | 1830 | 0.022 |
| | 1000 | 10X16 | 1850 | 0.021 |
| | | 8X20 | 1820 | 0.018 |
| | | 10X16 | 1920 | 0.020 |
| | | 10X20 | 2060 | 0.018 |
| | | 10X20 | 2180 | 0.016 |

Ripple Current (mA, rms) at 105°C 100KHz
 Max ESR (Ω) at 20°C 100KHz