



VXP SERIES

105°C 5000 hours, Snap-in Terminal Type

◆ FEATURES

- Load Life : 105°C 5000 hours.



◆ SPECIFICATIONS

| Items | Characteristics | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|-------------|--------------------|---|--------------------|--|-----------------|------------------------------------|---------|---------|---------------|------------------|---------|---------------|------|------|------|------|------|------|------|------|------|------|------|
| Category Temperature Range | -40~+105°C | -25~+105°C | | | | | | | | | | | | | | | | | | | | | | | |
| Rated Voltage Range | 10~100V.DC | 160~400V.DC | | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance Tolerance | ±20%(20°C,120Hz) | | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage Current(MAX) | $I=3\sqrt{CV}$ (After 5 minutes application of rated voltage) I =Leakage Current(μA) V =Rated Voltage(V) C =Rated Capacitance(μF) | | | | | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor(MAX) | <table border="1"> <tr> <td>Rated Voltage(V)</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>80</td> <td>100</td> <td>160~250</td> <td>315~400</td> <td rowspan="2">(20°C, 120Hz)</td> </tr> <tr> <td>tanδ</td> <td>0.55</td> <td>0.50</td> <td>0.45</td> <td>0.40</td> <td>0.35</td> <td>0.30</td> <td>0.25</td> <td>0.20</td> <td>0.15</td> <td>0.20</td> </tr> </table> | | Rated Voltage(V) | 10 | 16 | 25 | 35 | 50 | 63 | 80 | 100 | 160~250 | 315~400 | (20°C, 120Hz) | tanδ | 0.55 | 0.50 | 0.45 | 0.40 | 0.35 | 0.30 | 0.25 | 0.20 | 0.15 | 0.20 |
| Rated Voltage(V) | 10 | 16 | 25 | 35 | 50 | 63 | 80 | 100 | 160~250 | 315~400 | (20°C, 120Hz) | | | | | | | | | | | | | | |
| tanδ | 0.55 | 0.50 | 0.45 | 0.40 | 0.35 | 0.30 | 0.25 | 0.20 | 0.15 | 0.20 | | | | | | | | | | | | | | | |
| Impedance Ratio(MAX) | <table border="1"> <tr> <td>Rated Voltage(V)</td> <td>10~100</td> <td>160~250</td> <td>315~400</td> <td rowspan="3">(120Hz)</td> </tr> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>3</td> <td>3</td> <td>8</td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>12</td> <td></td> <td></td> </tr> </table> | | Rated Voltage(V) | 10~100 | 160~250 | 315~400 | (120Hz) | Z(-25°C)/Z(20°C) | 3 | 3 | 8 | Z(-40°C)/Z(20°C) | 12 | | | | | | | | | | | | |
| Rated Voltage(V) | 10~100 | 160~250 | 315~400 | (120Hz) | | | | | | | | | | | | | | | | | | | | | |
| Z(-25°C)/Z(20°C) | 3 | 3 | 8 | | | | | | | | | | | | | | | | | | | | | | |
| Z(-40°C)/Z(20°C) | 12 | | | | | | | | | | | | | | | | | | | | | | | | |
| Endurance | After applying rated voltage with rated ripple current for 5000hrs at 105°C, the capacitors shall meet the following requirements. <table border="1"> <tr> <td>Capacitance Change</td> <td>Within ±20%(For 10WV ; ±25%)of the initial value.</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 200% of the specified value.</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value.</td> </tr> </table> | | Capacitance Change | Within ±20%(For 10WV ; ±25%)of the initial value. | Dissipation Factor | Not more than 200% of the specified value. | Leakage Current | Not more than the specified value. | | | | | | | | | | | | | | | | | |
| Capacitance Change | Within ±20%(For 10WV ; ±25%)of the initial value. | | | | | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor | Not more than 200% of the specified value. | | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage Current | Not more than the specified value. | | | | | | | | | | | | | | | | | | | | | | | | |

◆ MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

| Frequency(Hz) | | 60(50) | 120 | 500 | 1k | 10k≤ |
|---------------|-----------|--------|------|------|------|------|
| Coefficient | 10~100WV | 0.90 | 1.00 | 1.05 | 1.10 | 1.15 |
| | 160~250WV | 0.80 | 1.00 | 1.20 | 1.30 | 1.50 |
| | 315~400WV | 0.80 | 1.00 | 1.20 | 1.25 | 1.40 |

◆ PART NUMBER

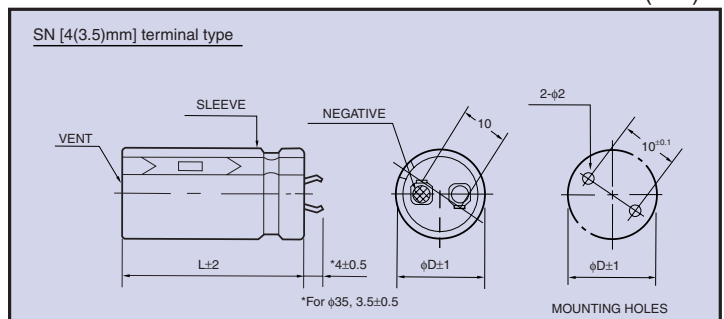
 VXP OOE DxL
 Rated Voltage Series Rated Capacitance Capacitance Tolerance Option Terminal Code Case Size

◆ Option

| | Code |
|---------------|-------|
| without plate | OOE |
| with plate | Blank |

◆ DIMENSIONS

(mm)





◆ **STANDARD SIZE, RATED RIPPLE CURRENT**

| Cap(μF) | WV ∅D | 10 | | | | 16 | | | | | | | | |
|---------|----------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|------|-------|------|
| | | ∅22 | ∅25 | ∅30 | v35 | ∅22 | ∅25 | ∅30 | ∅35 | | | | | |
| 5600 | | | | | | 22x25 | 1.44 | | | | | | | |
| 6800 | | | | | | 22x30 | 1.66 | | | | | | | |
| 8200 | 22x25 | 1.36 | | | | 22x30 | 1.79 | 25x25 | 1.67 | | | | | |
| 10000 | 22x30 | 1.65 | | | | 22x35 | 2.08 | 25x30 | 2.07 | | | | | |
| 12000 | 22x35 | 1.85 | 25x25 | 1.82 | | 22x40 | 2.36 | 25x35 | 2.37 | 30x25 | 2.13 | | | |
| 15000 | 22x40 | 2.12 | 25x30 | 2.11 | 30x25 | 2.14 | 22x45 | 2.69 | 25x40 | 2.72 | 30x30 | 2.54 | | |
| 18000 | 22x45 | 2.40 | 25x35 | 2.32 | 30x30 | 2.37 | | | 25x45 | 3.06 | 30x35 | 3.02 | 35x30 | 3.09 |
| 22000 | | | 25x40 | 2.59 | 30x30 | 2.73 | | | 25x50 | 3.39 | 30x40 | 3.46 | 35x30 | 3.31 |
| 27000 | | | 25x45 | 3.01 | 30x35 | 3.13 | 35x30 | 3.05 | | | 30x45 | 3.88 | 35x35 | 3.85 |
| 33000 | | | 25x50 | 3.43 | 30x40 | 3.53 | 35x35 | 3.49 | | | 30x50 | 4.33 | 35x40 | 4.33 |
| 39000 | | | | | 30x45 | 3.78 | 35x40 | 3.96 | | | | | 35x45 | 4.96 |
| 47000 | | | | | 30x50 | 4.58 | 35x45 | 4.60 | | | | | 35x50 | 5.49 |
| 56000 | | | | | | | 35x50 | 5.06 | | | | | | |

| Cap(μF) | WV ∅D | 25 | | | | 35 | | | | | | | |
|---------|----------|------|-------|------|-------|-------|-------|-------|------|-------|------|-------|------|
| | | ∅22 | ∅25 | ∅30 | ∅35 | ∅22 | ∅25 | ∅30 | ∅35 | | | | |
| 2700 | | | | | | 22x25 | 1.29 | | | | | | |
| 3300 | | | | | | 22x30 | 1.54 | | | | | | |
| 3900 | 22x25 | 1.31 | | | | 22x35 | 1.77 | 25x25 | 1.55 | | | | |
| 4700 | 22x30 | 1.55 | | | | 22x40 | 2.01 | 25x30 | 1.87 | | | | |
| 5600 | 22x35 | 1.77 | 25x25 | 1.56 | | 22x45 | 2.25 | 25x35 | 2.18 | 30x25 | 1.80 | | |
| 6800 | 22x40 | 2.02 | 25x30 | 1.88 | | 22x50 | 2.49 | 25x40 | 2.45 | 30x30 | 2.28 | | |
| 8200 | 22x45 | 2.27 | 25x35 | 2.18 | 30x25 | 1.92 | | 25x45 | 2.80 | 30x35 | 2.69 | | |
| 10000 | 22x50 | 2.56 | 25x40 | 2.53 | 30x30 | 2.38 | | | | 30x40 | 3.04 | 35x30 | 2.78 |
| 12000 | | | 25x45 | 2.79 | 30x35 | 2.70 | 35x30 | 2.76 | | 30x45 | 3.38 | 35x35 | 3.30 |
| 15000 | | | | | 30x40 | 3.13 | 35x30 | 3.00 | | | | 35x40 | 3.88 |
| 18000 | | | | | 30x45 | 3.52 | 35x35 | 3.50 | | | | 35x45 | 4.40 |
| 22000 | | | | | 30x50 | 3.92 | 35x40 | 3.95 | | | | | |
| 27000 | | | | | | | 35x50 | 4.72 | | | | | |

| Cap(μF) | WV ∅D | 50 | | | | 63 | | | | | | | |
|---------|----------|------|-------|------|-------|-------|-------|-------|------|-------|------|-------|------|
| | | v22 | ∅25 | ∅30 | ∅35 | ∅22 | ∅25 | ∅30 | ∅35 | | | | |
| 1000 | | | | | | 22x25 | 1.10 | | | | | | |
| 1200 | | | | | | 22x25 | 1.17 | | | | | | |
| 1500 | 22x25 | 1.21 | | | | 22x30 | 1.41 | 25x25 | 1.38 | | | | |
| 1800 | 22x25 | 1.28 | | | | 22x35 | 1.62 | 25x30 | 1.63 | | | | |
| 2200 | 22x30 | 1.52 | 25x25 | 1.46 | | 22x40 | 1.85 | 25x30 | 1.75 | 30x25 | 1.66 | | |
| 2700 | 22x35 | 1.77 | 25x30 | 1.76 | | 22x45 | 2.10 | 25x35 | 2.03 | 30x30 | 2.01 | | |
| 3300 | 22x40 | 2.02 | 25x30 | 1.87 | 30x25 | 1.72 | | 25x40 | 2.33 | 30x30 | 2.15 | | |
| 3900 | 22x45 | 2.27 | 25x35 | 2.20 | 30x30 | 2.09 | | 25x45 | 2.58 | 30x35 | 2.46 | 35x30 | 2.31 |
| 4700 | | | 25x40 | 2.43 | 30x30 | 2.22 | | | | 30x40 | 2.82 | 35x35 | 2.77 |
| 5600 | | | 25x45 | 2.72 | 30x35 | 2.58 | 35x30 | 2.35 | | 30x45 | 3.22 | 35x40 | 3.20 |
| 6800 | | | | | 30x40 | 3.01 | 35x35 | 2.91 | | | | 35x45 | 3.61 |
| 8200 | | | | | 30x50 | 3.63 | 35x40 | 3.36 | | | | 35x50 | 3.94 |
| 10000 | | | | | | | 35x45 | 3.79 | | | | | |
| 12000 | | | | | | | 35x50 | 4.06 | | | | | |

| Cap(μF) | WV ∅D | 80 | | | | 100 | | | | | | | |
|---------|----------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| | | ∅22 | ∅25 | ∅30 | ∅35 | ∅22 | ∅25 | ∅30 | ∅35 | | | | |
| 560 | | | | | | 22x25 | 1.01 | | | | | | |
| 680 | | | | | | 22x30 | 1.19 | | | | | | |
| 820 | 22x25 | 1.09 | | | | 22x35 | 1.33 | 25x25 | 1.26 | | | | |
| 1000 | 22x30 | 1.29 | | | | 22x40 | 1.56 | 25x30 | 1.52 | 30x25 | 1.47 | | |
| 1200 | 22x35 | 1.48 | 25x25 | 1.32 | | 22x45 | 1.76 | 25x35 | 1.76 | 30x30 | 1.76 | | |
| 1500 | 22x40 | 1.70 | 25x30 | 1.74 | 30x25 | 1.58 | 22x50 | 2.00 | 25x40 | 2.03 | 30x30 | 1.89 | |
| 1800 | 22x45 | 1.91 | 25x35 | 1.86 | 30x25 | 1.68 | | 25x45 | 2.29 | 30x35 | 2.19 | 35x30 | 2.05 |
| 2200 | | | 25x45 | 2.22 | 30x30 | 2.02 | | | | 30x40 | 2.52 | 35x35 | 2.48 |
| 2700 | | | | | 30x35 | 2.50 | 35x30 | 2.18 | | 30x45 | 2.86 | 35x40 | 2.87 |
| 3300 | | | | | 30x40 | 2.69 | 35x35 | 2.60 | | | | 35x45 | 3.25 |
| 3900 | | | | | 30x45 | 2.94 | 35x40 | 3.00 | | | | 35x50 | 3.56 |
| 4700 | | | | | | | 35x45 | 3.44 | | | | | |
| 5600 | | | | | | | 35x50 | 3.72 | | | | | |

↑ Ripple Current (A r.m.s./120Hz-105°C)
Case Size ∅DxL(mm)

◆ STANDARD SIZE, RATED RIPPLE CURRENT

| Cap(μF) | WV ∅D | 160 | | | | 180 | | | | | | | | |
|---------|----------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| | | ∅22 | ∅25 | ∅30 | ∅35 | ∅22 | ∅25 | ∅30 | ∅35 | | | | | |
| 220 | 22x25 | 0.63 | | | | 22x25 | 0.63 | | | | | | | |
| 270 | 22x30 | 0.76 | | | | 22x30 | 0.76 | 25x25 | 0.76 | | | | | |
| 330 | 22x35 | 0.90 | 25x25 | 0.84 | | 22x35 | 0.90 | 25x30 | 0.90 | | | | | |
| 390 | 22x35 | 0.97 | 25x30 | 0.97 | 30x25 | 1.00 | 22x40 | 1.03 | 25x35 | 1.06 | 30x25 | 1.02 | | |
| 470 | 22x40 | 1.11 | 25x35 | 1.14 | 30x30 | 1.17 | 22x45 | 1.17 | 25x35 | 1.15 | 30x30 | 1.17 | | |
| 560 | 22x45 | 1.26 | 25x35 | 1.23 | 30x30 | 1.26 | 22x50 | 1.32 | 25x40 | 1.32 | 30x35 | 1.33 | | |
| 680 | 22x50 | 1.44 | 25x40 | 1.43 | 30x35 | 1.50 | | 25x45 | 1.51 | 30x35 | 1.50 | 35x30 | 1.49 | |
| 820 | | | 25x45 | 1.63 | 30x40 | 1.66 | 35x30 | 1.63 | 25x50 | 1.71 | 30x40 | 1.74 | 35x35 | 1.75 |
| 1000 | | | | | 30x45 | 1.89 | 35x35 | 1.89 | | | 30x45 | 2.01 | 35x40 | 2.07 |
| 1200 | | | | | 30x50 | 2.16 | 35x40 | 2.23 | | | 30x50 | 2.25 | 35x45 | 2.23 |
| 1500 | | | | | | | 35x45 | 2.61 | | | | | 35x50 | 2.76 |
| 1800 | | | | | | | 35x50 | 2.97 | | | | | | |

| Cap(μF) | WV ∅D | 200 | | | | 250 | | | | | | | |
|---------|----------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| | | ∅22 | ∅25 | ∅30 | ∅35 | ∅22 | ∅25 | ∅30 | ∅35 | | | | |
| 150 | | | | | | 22x25 | 0.52 | | | | | | |
| 180 | 22x25 | 0.57 | | | | 22x30 | 0.64 | 25x25 | 0.62 | | | | |
| 220 | 22x30 | 0.70 | | | | 22x35 | 0.76 | 25x30 | 0.76 | | | | |
| 270 | 22x35 | 0.83 | 25x25 | 0.76 | | 22x40 | 0.88 | 25x35 | 0.90 | 30x25 | 0.85 | | |
| 330 | 22x40 | 0.96 | 25x30 | 0.90 | | 22x45 | 1.01 | 25x35 | 0.99 | 30x30 | 1.00 | | |
| 390 | 22x40 | 1.03 | 25x35 | 1.06 | 30x25 | 1.02 | 22x50 | 1.13 | 25x40 | 1.13 | 30x35 | 1.15 | |
| 470 | 22x45 | 1.17 | 25x40 | 1.22 | 30x30 | 1.17 | | 25x45 | 1.29 | 30x35 | 1.28 | 35x30 | 1.24 |
| 560 | | | 25x45 | 1.39 | 30x35 | 1.38 | | 25x50 | 1.45 | 30x40 | 1.48 | 35x35 | 1.49 |
| 680 | | | 25x50 | 1.58 | 30x40 | 1.61 | 35x30 | 1.49 | | 30x45 | 1.71 | 35x40 | 1.74 |
| 820 | | | | | 30x45 | 1.85 | 35x35 | 1.75 | | 30x50 | 1.94 | 35x40 | 1.89 |
| 1000 | | | | | 30x50 | 2.11 | 35x40 | 2.07 | | | | 35x45 | 2.20 |
| 1200 | | | | | | | 35x45 | 2.38 | | | | | |
| 1500 | | | | | | | 35x50 | 2.76 | | | | | |

| Cap(μF) | WV ∅D | 315 | | | | 350 | | | | | | | | |
|---------|----------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|------|-------|------|
| | | ∅22 | ∅25 | ∅30 | ∅35 | ∅22 | ∅25 | ∅30 | ∅35 | | | | | |
| 68 | 22x25 | 0.32 | | | | 22x25 | 0.34 | | | | | | | |
| 82 | 22x30 | 0.38 | | | | 22x30 | 0.40 | | | | | | | |
| 100 | 22x30 | 0.42 | 25x25 | 0.41 | | 22x30 | 0.46 | 25x25 | 0.47 | | | | | |
| 120 | 22x35 | 0.48 | 25x30 | 0.49 | | 22x35 | 0.52 | 25x30 | 0.53 | 30x25 | 0.53 | | | |
| 150 | 22x40 | 0.56 | 25x30 | 0.53 | 30x25 | 0.51 | 22x40 | 0.59 | 25x35 | 0.60 | 30x25 | 0.60 | | |
| 180 | 22x45 | 0.63 | 25x35 | 0.62 | 30x30 | 0.63 | 22x45 | 0.68 | 25x40 | 0.70 | 30x30 | 0.71 | | |
| 220 | 22x50 | 0.72 | 25x40 | 0.71 | 30x35 | 0.74 | 22x50 | 0.78 | 25x45 | 0.82 | 30x35 | 0.82 | | |
| 270 | | | 25x45 | 0.81 | 30x40 | 0.85 | 35x30 | 0.75 | 25x50 | 0.94 | 30x40 | 0.93 | 35x30 | 0.90 |
| 330 | | | 25x50 | 0.92 | 30x40 | 0.91 | 35x35 | 0.90 | | | 30x45 | 1.05 | 35x35 | 1.01 |
| 390 | | | | | 30x45 | 1.04 | 35x40 | 1.05 | | | 30x50 | 1.18 | 35x40 | 1.13 |
| 470 | | | | | 30x50 | 1.15 | 35x45 | 1.18 | | | | | 35x45 | 1.26 |
| 560 | | | | | | | 35x50 | 1.34 | | | | | 35x50 | 1.39 |

| Cap(μF) | WV ∅D | 400 | | | | | | |
|---------|----------|------|-------|------|-------|------|-------|------|
| | | ∅22 | ∅25 | ∅30 | ∅35 | | | |
| 68 | 22x30 | 0.38 | | | | | | |
| 82 | 22x30 | 0.43 | 25x25 | 0.41 | | | | |
| 100 | 22x35 | 0.46 | 25x30 | 0.48 | 30x25 | 0.48 | | |
| 120 | 22x40 | 0.53 | 25x35 | 0.55 | 30x30 | 0.56 | | |
| 150 | 22x50 | 0.63 | 25x40 | 0.65 | 30x30 | 0.65 | | |
| 180 | | | 25x45 | 0.72 | 30x35 | 0.74 | | |
| 220 | | | 25x50 | 0.79 | 30x40 | 0.85 | 35x30 | 0.89 |
| 270 | | | | | 30x45 | 0.98 | 35x35 | 0.96 |
| 330 | | | | | 30x50 | 1.12 | 35x40 | 1.12 |
| 390 | | | | | | | 35x45 | 1.27 |
| 470 | | | | | | | 35x50 | 1.33 |

↑ Ripple Current (A r.m.s./120Hz-105°C)
 ↑ Case Size ∅DxL(mm)