

## BXC SERIES

**Load Life:105℃ 5000~10000 Hours.**

## ◆ FEATURES

- High Ripple Current
- For Electronic Ballast
- RoHS compliance.



## ◆ SPECIFICATIONS

| Items                                              | Characteristics                                                                                                                                                                                                                                                                                      |                      |                    |                                                      |      |      |     |     |                    |                                            |      |      |         |      |                 |                                                    |  |  |  |                                                      |                                                                                                                                                                                                    |      |                                                                                  |                 |      |              |      |          |       |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--------------------|------------------------------------------------------|------|------|-----|-----|--------------------|--------------------------------------------|------|------|---------|------|-----------------|----------------------------------------------------|--|--|--|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------------------------------------------------------------------------------|-----------------|------|--------------|------|----------|-------|
| Category Temperature Range                         | -25~+105℃                                                                                                                                                                                                                                                                                            |                      |                    |                                                      |      |      |     |     |                    |                                            |      |      |         |      |                 |                                                    |  |  |  |                                                      |                                                                                                                                                                                                    |      |                                                                                  |                 |      |              |      |          |       |
| Rated Voltage Range                                | 160~450V.DC                                                                                                                                                                                                                                                                                          |                      |                    |                                                      |      |      |     |     |                    |                                            |      |      |         |      |                 |                                                    |  |  |  |                                                      |                                                                                                                                                                                                    |      |                                                                                  |                 |      |              |      |          |       |
| Capacitance Tolerance                              | ±20% (20℃, 120Hz)                                                                                                                                                                                                                                                                                    |                      |                    |                                                      |      |      |     |     |                    |                                            |      |      |         |      |                 |                                                    |  |  |  |                                                      |                                                                                                                                                                                                    |      |                                                                                  |                 |      |              |      |          |       |
| Leakage Current(MAX)                               | <table><tr><th colspan="7">160~450V.DC</th></tr><tr><th colspan="4">CV≤1000</th><th colspan="3">CV&gt;1000</th></tr><tr><td colspan="4">I=0.1CV+40μA (1minute)<br/>I=0.03CV+15μA (5minutes)</td><td colspan="3">I=0.04CV+100μA (1minute)<br/>I=0.02CV+25μA (5minutes)</td></tr></table>              | 160~450V.DC          |                    |                                                      |      |      |     |     | CV≤1000            |                                            |      |      | CV>1000 |      |                 | I=0.1CV+40μA (1minute)<br>I=0.03CV+15μA (5minutes) |  |  |  | I=0.04CV+100μA (1minute)<br>I=0.02CV+25μA (5minutes) |                                                                                                                                                                                                    |      | I=Leakage Current( μA)<br><br>C=Rated Capacitance( μF)<br><br>V=Rated Voltage(V) |                 |      |              |      |          |       |
| 160~450V.DC                                        |                                                                                                                                                                                                                                                                                                      |                      |                    |                                                      |      |      |     |     |                    |                                            |      |      |         |      |                 |                                                    |  |  |  |                                                      |                                                                                                                                                                                                    |      |                                                                                  |                 |      |              |      |          |       |
| CV≤1000                                            |                                                                                                                                                                                                                                                                                                      |                      |                    | CV>1000                                              |      |      |     |     |                    |                                            |      |      |         |      |                 |                                                    |  |  |  |                                                      |                                                                                                                                                                                                    |      |                                                                                  |                 |      |              |      |          |       |
| I=0.1CV+40μA (1minute)<br>I=0.03CV+15μA (5minutes) |                                                                                                                                                                                                                                                                                                      |                      |                    | I=0.04CV+100μA (1minute)<br>I=0.02CV+25μA (5minutes) |      |      |     |     |                    |                                            |      |      |         |      |                 |                                                    |  |  |  |                                                      |                                                                                                                                                                                                    |      |                                                                                  |                 |      |              |      |          |       |
| Dissipation Factor(MAX)<br>(tan δ )                | <table><tr><th>Rated Voltage<br/>(V)</th><th>160</th><th>200</th><th>250</th><th>350</th><th>400</th><th>450</th></tr><tr><th>tan δ</th><td>0.15</td><td>0.15</td><td>0.15</td><td>0.20</td><td>0.20</td><td>0.20</td></tr></table>                                                                  | Rated Voltage<br>(V) | 160                | 200                                                  | 250  | 350  | 400 | 450 | tan δ              | 0.15                                       | 0.15 | 0.15 | 0.20    | 0.20 | 0.20            | (20℃, 120Hz)                                       |  |  |  |                                                      |                                                                                                                                                                                                    |      |                                                                                  |                 |      |              |      |          |       |
| Rated Voltage<br>(V)                               | 160                                                                                                                                                                                                                                                                                                  | 200                  | 250                | 350                                                  | 400  | 450  |     |     |                    |                                            |      |      |         |      |                 |                                                    |  |  |  |                                                      |                                                                                                                                                                                                    |      |                                                                                  |                 |      |              |      |          |       |
| tan δ                                              | 0.15                                                                                                                                                                                                                                                                                                 | 0.15                 | 0.15               | 0.20                                                 | 0.20 | 0.20 |     |     |                    |                                            |      |      |         |      |                 |                                                    |  |  |  |                                                      |                                                                                                                                                                                                    |      |                                                                                  |                 |      |              |      |          |       |
| Endurance                                          | After life test with rated ripple current at conditions stated in the table below, the capacitors shall meet the following requirements.                                                                                                                                                             |                      |                    |                                                      |      |      |     |     |                    |                                            |      |      |         |      |                 |                                                    |  |  |  |                                                      |                                                                                                                                                                                                    |      |                                                                                  |                 |      |              |      |          |       |
|                                                    | <table><tr><th>Capacitance Change</th><td colspan="5">Within ±20% of the initial value.</td></tr><tr><th>Dissipation Factor</th><td colspan="5">Not more than 200% of the specified value.</td></tr><tr><th>Leakage Current</th><td colspan="5">Not more than the specified value.</td></tr></table> |                      | Capacitance Change | Within ±20% of the initial value.                    |      |      |     |     | Dissipation Factor | Not more than 200% of the specified value. |      |      |         |      | Leakage Current | Not more than the specified value.                 |  |  |  |                                                      | <table><tr><th>Size</th><th>Life Time<br/>(hrs)</th></tr><tr><td>8×11.5, 10×12.5</td><td>5000</td></tr><tr><td>10×16, 10×20</td><td>8000</td></tr><tr><td>φ D≥12.5</td><td>10000</td></tr></table> | Size | Life Time<br>(hrs)                                                               | 8×11.5, 10×12.5 | 5000 | 10×16, 10×20 | 8000 | φ D≥12.5 | 10000 |
| Capacitance Change                                 | Within ±20% of the initial value.                                                                                                                                                                                                                                                                    |                      |                    |                                                      |      |      |     |     |                    |                                            |      |      |         |      |                 |                                                    |  |  |  |                                                      |                                                                                                                                                                                                    |      |                                                                                  |                 |      |              |      |          |       |
| Dissipation Factor                                 | Not more than 200% of the specified value.                                                                                                                                                                                                                                                           |                      |                    |                                                      |      |      |     |     |                    |                                            |      |      |         |      |                 |                                                    |  |  |  |                                                      |                                                                                                                                                                                                    |      |                                                                                  |                 |      |              |      |          |       |
| Leakage Current                                    | Not more than the specified value.                                                                                                                                                                                                                                                                   |                      |                    |                                                      |      |      |     |     |                    |                                            |      |      |         |      |                 |                                                    |  |  |  |                                                      |                                                                                                                                                                                                    |      |                                                                                  |                 |      |              |      |          |       |
| Size                                               | Life Time<br>(hrs)                                                                                                                                                                                                                                                                                   |                      |                    |                                                      |      |      |     |     |                    |                                            |      |      |         |      |                 |                                                    |  |  |  |                                                      |                                                                                                                                                                                                    |      |                                                                                  |                 |      |              |      |          |       |
| 8×11.5, 10×12.5                                    | 5000                                                                                                                                                                                                                                                                                                 |                      |                    |                                                      |      |      |     |     |                    |                                            |      |      |         |      |                 |                                                    |  |  |  |                                                      |                                                                                                                                                                                                    |      |                                                                                  |                 |      |              |      |          |       |
| 10×16, 10×20                                       | 8000                                                                                                                                                                                                                                                                                                 |                      |                    |                                                      |      |      |     |     |                    |                                            |      |      |         |      |                 |                                                    |  |  |  |                                                      |                                                                                                                                                                                                    |      |                                                                                  |                 |      |              |      |          |       |
| φ D≥12.5                                           | 10000                                                                                                                                                                                                                                                                                                |                      |                    |                                                      |      |      |     |     |                    |                                            |      |      |         |      |                 |                                                    |  |  |  |                                                      |                                                                                                                                                                                                    |      |                                                                                  |                 |      |              |      |          |       |
| Low Temperature Stability<br>Impedance Ratio(MAX)  | <table><tr><th>Rated Voltage<br/>(V)</th><th>160</th><th>200</th><th>250</th><th>350</th><th>400</th><th>450</th></tr><tr><th>Z(-25℃)/Z(20℃)</th><td>3</td><td>3</td><td>3</td><td>6</td><td>6</td><td>6</td></tr></table>                                                                           | Rated Voltage<br>(V) | 160                | 200                                                  | 250  | 350  | 400 | 450 | Z(-25℃)/Z(20℃)     | 3                                          | 3    | 3    | 6       | 6    | 6               | (120Hz)                                            |  |  |  |                                                      |                                                                                                                                                                                                    |      |                                                                                  |                 |      |              |      |          |       |
| Rated Voltage<br>(V)                               | 160                                                                                                                                                                                                                                                                                                  | 200                  | 250                | 350                                                  | 400  | 450  |     |     |                    |                                            |      |      |         |      |                 |                                                    |  |  |  |                                                      |                                                                                                                                                                                                    |      |                                                                                  |                 |      |              |      |          |       |
| Z(-25℃)/Z(20℃)                                     | 3                                                                                                                                                                                                                                                                                                    | 3                    | 3                  | 6                                                    | 6    | 6    |     |     |                    |                                            |      |      |         |      |                 |                                                    |  |  |  |                                                      |                                                                                                                                                                                                    |      |                                                                                  |                 |      |              |      |          |       |

### ◆MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

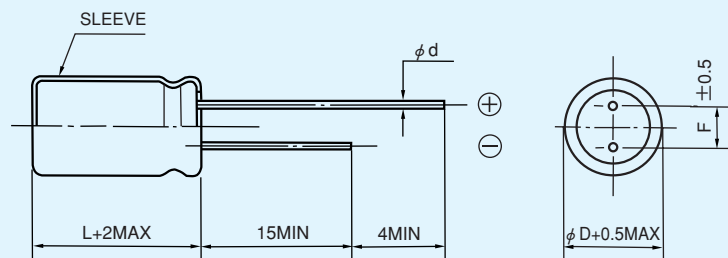
| Frequency<br>(Hz) |                 | 120  | 1k   | 10k | $\geq 100k$ |
|-------------------|-----------------|------|------|-----|-------------|
| Coefficient       | 1~4.7 $\mu F$   | 0.2  | 0.4  | 0.8 | 1.0         |
|                   | 6.8~15 $\mu F$  | 0.3  | 0.6  | 0.9 | 1.0         |
|                   | 22~82 $\mu F$   | 0.4  | 0.7  | 0.9 | 1.0         |
|                   | 100~220 $\mu F$ | 0.45 | 0.75 | 0.9 | 1.0         |

**◆PART NUMBER**

|                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |  |  |  |
| Rated Voltage                                                                       | BXC Series                                                                          | Rated Capacitance                                                                   | Capacitance Tolerance                                                               | Option                                                                              | Lead Forming                                                                        |
|                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     | DXL Case Size                                                                       |

◆ DIMENSIONS

(mm)



|          |     |     |      |     |    |
|----------|-----|-----|------|-----|----|
| $\phi D$ | 8   | 10  | 12.5 | 16  | 18 |
| $\phi d$ | 0.6 |     |      | 0.8 |    |
| F        | 3.5 | 5.0 |      | 7.5 |    |

◆ STANDARD SIZE, RATED RIPPLE CURRENT

Size  $\phi D \times L$ (mm), Ripple Current (mA r.m.s./105°C, 100kHz)

| WV (V.DC)<br>Cap ( $\mu F$ ) | 160V<br>(2C)     |        | 200V<br>(2D)     |        | 250V<br>(2E) |        |
|------------------------------|------------------|--------|------------------|--------|--------------|--------|
|                              | Size             | Ripple | Size             | Ripple | Size         | Ripple |
| 4.7                          |                  |        |                  |        | 8×11.5       | 160    |
| 6.8                          |                  |        |                  |        | 10×12.5      | 250    |
| 10                           | 10×16            | 320    | 10×16            | 320    | 10×16        | 320    |
| 22                           | 10×20            | 500    | 10×20            | 500    | 10×20        | 500    |
| 33                           | 10×20            | 650    | 10×20            | 650    | 12.5×20      | 800    |
| 47                           | 10×20            | 750    | 12.5×20          | 980    | 12.5×20      | 980    |
| 68                           | 12.5×20          | 1180   | 12.5×25<br>16×20 | 1300   | 16×20        | 1300   |
| 82                           |                  |        | 16×20            | 1380   | 16×20        | 1380   |
| 100                          | 12.5×25<br>16×20 | 1420   | 16×20            | 1420   | 16×25        | 1530   |
| 150                          | 16×25            | 1890   | 16×25            | 1890   | 18×25        | 1940   |
| 220                          | 18×25            | 2370   |                  |        |              |        |

| WV (V.DC)<br>Cap ( $\mu F$ ) | 350V<br>(2V) |        | 400V<br>(2G)      |            | 450V<br>(2W) |        |
|------------------------------|--------------|--------|-------------------|------------|--------------|--------|
|                              | Size         | Ripple | Size              | Ripple     | Size         | Ripple |
| 1                            |              |        | 8×11.5<br>10×12.5 | 60<br>70   |              |        |
| 1.5                          |              |        | 8×11.5<br>10×12.5 | 90<br>100  |              |        |
| 1.8                          |              |        | 8×11.5<br>10×12.5 | 95<br>120  |              |        |
| 2.2                          |              |        | 8×11.5<br>10×12.5 | 95<br>140  |              |        |
| 3.3                          |              |        | 10×12.5<br>10×16  | 150<br>180 |              |        |
| 4.7                          | 10×12.5      | 150    | 10×16             | 220        | 10×20        | 220    |
| 5.6                          | 10×12.5      | 180    | 10×16             | 250        | 10×20        | 250    |
| 6.8                          | 10×16        | 280    | 10×16             | 280        | 10×20        | 280    |
| 10                           | 10×20        | 350    | 10×20             | 350        | 12.5×20      | 450    |
| 15                           |              |        | 12.5×20           | 550        | 12.5×25      | 600    |
| 22                           | 12.5×20      | 650    | 12.5×25<br>16×20  | 760        | 16×20        | 730    |
| 33                           | 16×20        | 900    | 16×20             | 900        | 16×25        | 980    |
| 47                           | 16×20        | 1080   | 16×25<br>18×20    | 1180       | 18×25        | 1200   |
| 68                           | 18×25        | 1470   | 18×25             | 1470       |              |        |
| 82                           | 18×25        | 1530   |                   |            |              |        |