

## KXW SERIES

## ◆ FEATURES

- Load Life : 105°C 2000 hours.
- Body diameter of  $\phi$  10mm to  $\phi$  18mm with high ripple current capability.
- This series is one class smaller than the current AXW series.
- For switching adapter.
- RoHS compliance.



## ◆ SPECIFICATIONS

| Items                                      | Characteristics                                                                                                                                                                                                                                                                                                                                                                                                                        |         |         |  |                      |                                   |         |                |                    |                                            |      |      |                 |                                    |  |  |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|--|----------------------|-----------------------------------|---------|----------------|--------------------|--------------------------------------------|------|------|-----------------|------------------------------------|--|--|
| Category Temperature Range                 | -25~+105℃                                                                                                                                                                                                                                                                                                                                                                                                                              |         |         |  |                      |                                   |         |                |                    |                                            |      |      |                 |                                    |  |  |
| Rated Voltage Range                        | 200・400・420・450V.DC                                                                                                                                                                                                                                                                                                                                                                                                                    |         |         |  |                      |                                   |         |                |                    |                                            |      |      |                 |                                    |  |  |
| Capacitance Tolerance                      | ±20%（20℃，120Hz）                                                                                                                                                                                                                                                                                                                                                                                                                        |         |         |  |                      |                                   |         |                |                    |                                            |      |      |                 |                                    |  |  |
| Leakage Current(MAX)                       | $I=3\sqrt{CV}$ （After 5 minutes application of rated voltage）<br>$I$ =Leakage Current( $\mu$ A) $C$ =Rated Capacitance( $\mu$ F) $V$ =Rated Voltage(V)                                                                                                                                                                                                                                                                                 |         |         |  |                      |                                   |         |                |                    |                                            |      |      |                 |                                    |  |  |
| Dissipation Factor(MAX)<br>(tan $\delta$ ) | <table><tr><td>Rated Voltage<br/>(V)</td><td>200</td><td>400</td><td>420~450</td></tr><tr><td></td><td>0.12</td><td>0.15</td><td>0.20</td></tr></table> （20℃，120Hz）                                                                                                                                                                                                                                                                    |         |         |  | Rated Voltage<br>(V) | 200                               | 400     | 420~450        |                    | 0.12                                       | 0.15 | 0.20 |                 |                                    |  |  |
| Rated Voltage<br>(V)                       | 200                                                                                                                                                                                                                                                                                                                                                                                                                                    | 400     | 420~450 |  |                      |                                   |         |                |                    |                                            |      |      |                 |                                    |  |  |
|                                            | 0.12                                                                                                                                                                                                                                                                                                                                                                                                                                   | 0.15    | 0.20    |  |                      |                                   |         |                |                    |                                            |      |      |                 |                                    |  |  |
| Endurance                                  | After applying rated voltage with rated ripple current for 2000hrs at 105℃, the capacitors shall meet the following requirements. <table><tr><td>Capacitance Change</td><td colspan="3">Within ±20% of the initial value.</td></tr><tr><td>Dissipation Factor</td><td colspan="3">Not more than 200% of the specified value.</td></tr><tr><td>Leakage Current</td><td colspan="3">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. |  |  |
| 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.                                                                                                                                                                                                                                                                                                                                                                                                     |         |         |  |                      |                                   |         |                |                    |                                            |      |      |                 |                                    |  |  |
| Impedance Ratio(MAX)                       | <table><tr><td>Rated Voltage<br/>(V)</td><td>200</td><td>400~450</td></tr><tr><td>Z(-25℃)/Z(20℃)</td><td>3</td><td>8</td></tr></table> （120Hz）                                                                                                                                                                                                                                                                                         |         |         |  | Rated Voltage<br>(V) | 200                               | 400~450 | Z(-25℃)/Z(20℃) | 3                  | 8                                          |      |      |                 |                                    |  |  |
| Rated Voltage<br>(V)                       | 200                                                                                                                                                                                                                                                                                                                                                                                                                                    | 400~450 |         |  |                      |                                   |         |                |                    |                                            |      |      |                 |                                    |  |  |
| Z(-25℃)/Z(20℃)                             | 3                                                                                                                                                                                                                                                                                                                                                                                                                                      | 8       |         |  |                      |                                   |         |                |                    |                                            |      |      |                 |                                    |  |  |

### ◆MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

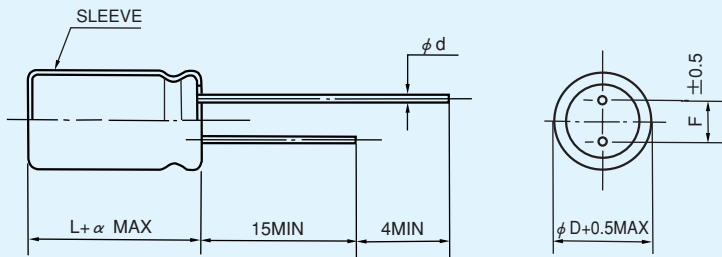
| Frequency<br>(Hz) |           | 60 (50) | 120 | 500  | 1k   | 10k $\leq$ |
|-------------------|-----------|---------|-----|------|------|------------|
| Coefficient       | 200WV     | 0.8     | 1.0 | 1.20 | 1.30 | 1.40       |
|                   | 400~450WV | 0.8     | 1.0 | 1.25 | 1.40 | 1.50       |

◆PART NUMBER

|                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                      |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |  |  |  |  |  |  |  |
| Rated Voltage                                                                       | Series                                                                              | Rated Capacitance                                                                   | Capacitance Tolerance                                                               | Option                                                                              | Lead Forming                                                                        | D x L                                                                               |                                                                                      |
|                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                      |

◆ DIMENSIONS

(mm)



|          |     |      |      |    |    |
|----------|-----|------|------|----|----|
| $\phi D$ | 10  | 12.5 | 14.5 | 16 | 18 |
| $\phi d$ | 0.6 |      | 0.8  |    |    |
| F        | 5.0 |      | 7.5  |    |    |
| $\alpha$ | 2.0 |      |      |    |    |

◆ STANDARD SIZE, RATED RIPPLE CURRENT

| Cap(μF) | WV<br>φD    | 200  |               |               |             |             | 400         |               |               |             |             |
|---------|-------------|------|---------------|---------------|-------------|-------------|-------------|---------------|---------------|-------------|-------------|
|         |             | φ 10 | φ 12.5        | φ 14.5        | φ 16        | φ 18        | φ 10        | φ 12.5        | φ 14.5        | φ 16        | φ 18        |
| 27      |             |      |               |               |             |             | 10X30: 0.24 |               |               |             |             |
| 33      |             |      |               |               |             |             | 10X35: 0.28 |               |               |             |             |
| 39      |             |      |               |               |             |             | 10X40: 0.32 |               |               |             |             |
| 47      |             |      |               |               |             |             |             | 12.5X30: 0.37 |               |             |             |
| 56      |             |      |               |               |             |             |             | 12.5X35: 0.42 |               |             |             |
| 68      |             |      |               |               |             |             |             | 12.5X40: 0.48 | 14.5X30: 0.48 |             |             |
| 82      | 10X30: 0.40 |      |               |               |             |             |             |               | 14.5X35: 0.52 |             |             |
| 100     | 10X35: 0.46 |      |               |               |             |             |             |               | 14.5X40: 0.58 | 16X30: 0.58 |             |
| 120     | 10X40: 0.53 |      |               |               |             |             |             |               |               | 16X35: 0.67 | 18X30: 0.67 |
| 150     |             |      | 12.5X30: 0.62 |               |             |             |             |               |               | 16X40: 0.77 | 18X35: 0.77 |
| 180     |             |      | 12.5X35: 0.70 |               |             |             |             |               |               |             | 18X40: 0.88 |
| 220     |             |      | 12.5X40: 0.80 | 14.5X30: 0.80 |             |             |             |               |               |             | 18X45: 1.00 |
| 270     |             |      |               | 14.5X35: 0.87 | 16X30: 0.87 |             |             |               |               |             |             |
| 330     |             |      |               |               | 16X35: 1.01 | 18X30: 1.01 |             |               |               |             |             |
| 390     |             |      |               |               | 16X40: 1.13 | 18X35: 1.13 |             |               |               |             |             |
| 470     |             |      |               |               |             | 18X40: 1.27 |             |               |               |             |             |
| 560     |             |      |               |               |             | 18X45: 1.39 |             |               |               |             |             |

| Cap(μF) | WV<br>φD    | 420  |               |               |             |             | 450         |               |               |             |             |
|---------|-------------|------|---------------|---------------|-------------|-------------|-------------|---------------|---------------|-------------|-------------|
|         |             | φ 10 | φ 12.5        | φ 14.5        | φ 16        | φ 18        | φ 10        | φ 12.5        | φ 14.5        | φ 16        | φ 18        |
| 18      |             |      |               |               |             |             | 10X30: 0.18 |               |               |             |             |
| 22      | 10X30: 0.20 |      |               |               |             |             | 10X35: 0.21 |               |               |             |             |
| 27      | 10X35: 0.23 |      |               |               |             |             | 10X40: 0.25 |               |               |             |             |
| 33      | 10X40: 0.27 |      |               |               |             |             |             | 12.5X30: 0.28 |               |             |             |
| 39      |             |      | 12.5X30: 0.31 |               |             |             |             | 12.5X35: 0.32 |               |             |             |
| 47      |             |      | 12.5X35: 0.36 |               |             |             |             | 12.5X40: 0.38 | 14.5X30: 0.38 |             |             |
| 56      |             |      | 12.5X40: 0.43 | 14.5X30: 0.43 |             |             |             |               | 14.5X35: 0.44 | 16X30: 0.44 |             |
| 68      |             |      |               | 14.5X35: 0.51 | 16X30: 0.51 |             |             |               | 14.5X40: 0.49 | 16X35: 0.49 |             |
| 82      |             |      |               | 14.5X40: 0.57 | 16X35: 0.57 |             |             |               |               | 16X40: 0.55 | 18X30: 0.55 |
| 100     |             |      |               |               | 16X40: 0.61 | 18X30: 0.61 |             |               |               |             | 18X35: 0.65 |
| 120     |             |      |               |               |             | 18X35: 0.66 |             |               |               |             | 18X40: 0.74 |
| 150     |             |      |               |               |             | 18X40: 0.71 |             |               |               |             | 18X45: 0.80 |

Please check with us about individual WV, Cap., size and dimensions.

Size  $\phi D \times L$ (mm)  
Ripple Current (A r.m.s./120Hz, 105°C)