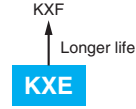


# KXE Series

- For LED light circuits and other long life applications
- Rated voltage range : 160 to 400 V<sub>dc</sub> , Capacitance range : 1.0 to 33μF
- Endurance with ripple current : 10,000 to 12,000 hours at 105°C
- Non solvent resistant type
- RoHS2 Compliant

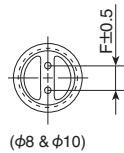
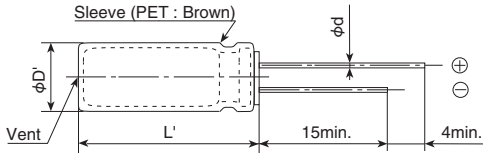


## SPECIFICATIONS

| Items  | Characteristics   |                                       |                  |
|--|---|---------------------------------------|------------------|
| Category   | -40 to +105°C   |                                       |                  |
| Temperature Range                                      |   |                                       |                  |
| Rated Voltage Range                                    | 160 to 400V <sub>dc</sub>   |                                       |                  |
| Capacitance Tolerance                                  | ±20% (M) (at 20°C, 120Hz)   |                                       |                  |
| Leakage Current  |   | After 1 minute                        | After 5 minutes  |
|  | CV ≤ 1,000  | I=0.1CV+40                            | I=0.03CV+15      |
|  | CV > 1,000  | I=0.04CV+100                          | I=0.02CV+25      |
|  | Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C)   |                                       |                  |
| Dissipation Factor (tan δ)                             | Rated voltage (V <sub>dc</sub> )  | 160 to 400V                           | (at 20°C, 120Hz) |
|  | tan δ (Max.)  | 0.24                                  |                  |
| Low Temperature Characteristics (Max. Impedance Ratio) | Rated voltage (V <sub>dc</sub> )  | 160 to 400V                           | (at 120Hz)       |
|  | Z(-25°C)/Z(+20°C)   | 4                                     |                  |
|  | Z(-40°C)/Z(+20°C)   | 6                                     |                  |
| Endurance  | The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for 10,000 hours (12,000 hours for φ 10 × 16L) at 105°C.          |                                       |                  |
|  | Capacitance change  | ≤ ±30% of the initial value           |                  |
|  | D.F. (tan δ)  | ≤ 300% of the initial specified value |                  |
|  | Leakage current   | ≤ The initial specified value         |                  |
| Shelf Life   | The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 105°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4. |                                       |                  |
|  | Capacitance change  | ≤ ±30% of the initial value           |                  |
|  | D.F. (tan δ)  | ≤ 300% of the initial specified value |                  |
|  | Leakage current   | ≤ 500% of the initial specified value |                  |

## DIMENSIONS [mm]

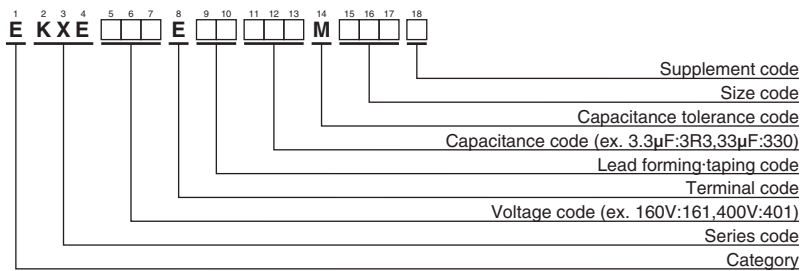
- Terminal Code : E



Gas escape end seal

| φD  | 8          | 10        |
|-----|------------|-----------|
| φd  | 0.6        | 0.6       |
| F   | 3.5        | 5.0       |
| φD' | φD+0.5max. |           |
| L'  | L+2.0max.  | L+1.5max. |

## PART NUMBERING SYSTEM



Please refer to "Product code guide (radial lead type)"

## RATED RIPPLE CURRENT MULTIPLIERS

- Frequency Multipliers

| Capacitance(μF) | Frequency(Hz) |      |      |      |
|-----------------|---------------|------|------|------|
|                 | 120           | 1k   | 10k  | 100k |
| 1.0 to 33       | 1.00          | 1.75 | 2.25 | 2.50 |

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.

**◆STANDARD RATINGS**

| WV<br>(V <sub>dc</sub> ) | Cap<br>(μF) | Case size<br>φD×L(mm) | tan δ | Rated ripple current(mArms/105°C) |        | Part No.           |
|--------------------------|-------------|-----------------------|-------|-----------------------------------|--------|--------------------|
|                          |             |                       |       | 120Hz                             | 100kHz |                    |
| 160                      | 10          | 8 × 11.5              | 0.24  | 55                                | 137    | EKXE161E□□100MHB5D |
|                          | 15          | 8 × 15                | 0.24  | 75                                | 187    | EKXE161E□□150MH15D |
|                          | 15          | 10 × 12.5             | 0.24  | 80                                | 200    | EKXE161E□□150MJC5S |
|                          | 22          | 10 × 12.5             | 0.24  | 95                                | 237    | EKXE161E□□220MJC5S |
|                          | 27          | 10 × 16               | 0.24  | 105                               | 262    | EKXE161E□□270MJ16S |
|                          | 33          | 10 × 16               | 0.24  | 130                               | 325    | EKXE161E□□330MJ16S |
| 200                      | 10          | 8 × 11.5              | 0.24  | 55                                | 137    | EKXE201E□□100MHB5D |
|                          | 12          | 8 × 15                | 0.24  | 70                                | 175    | EKXE201E□□120MH15D |
|                          | 12          | 10 × 12.5             | 0.24  | 70                                | 175    | EKXE201E□□120MJC5S |
|                          | 15          | 10 × 16               | 0.24  | 90                                | 225    | EKXE201E□□150MJ16S |
|                          | 18          | 10 × 12.5             | 0.24  | 85                                | 212    | EKXE201E□□180MJC5S |
|                          | 27          | 10 × 16               | 0.24  | 120                               | 300    | EKXE201E□□270MJ16S |
| 250                      | 6.8         | 8 × 11.5              | 0.24  | 45                                | 112    | EKXE251E□□6R8MHB5D |
|                          | 10          | 8 × 15                | 0.24  | 60                                | 150    | EKXE251E□□100MH15D |
| 400                      | 1.0         | 8 × 11.5              | 0.24  | 25                                | 62     | EKXE401E□□1R0MHB5D |
|                          | 2.2         | 8 × 11.5              | 0.24  | 40                                | 100    | EKXE401E□□2R2MHB5D |
|                          | 2.7         | 8 × 11.5              | 0.24  | 45                                | 112    | EKXE401E□□2R7MHB5D |
|                          | 3.3         | 8 × 11.5              | 0.24  | 50                                | 125    | EKXE401E□□3R3MHB5D |
|                          | 3.3         | 10 × 12.5             | 0.24  | 60                                | 150    | EKXE401E□□3R3MJC5S |
|                          | 3.9         | 8 × 15                | 0.24  | 65                                | 162    | EKXE401E□□3R9MH15D |
|                          | 4.7         | 10 × 16               | 0.24  | 90                                | 225    | EKXE401E□□4R7MJ16S |
|                          | 5.6         | 10 × 16               | 0.24  | 100                               | 250    | EKXE401E□□5R6MJ16S |
|                          | 6.8         | 10 × 12.5             | 0.24  | 85                                | 212    | EKXE401E□□6R8MJC5S |
|                          | 6.8         | 10 × 16               | 0.24  | 115                               | 287    | EKXE401E□□6R8MJ16S |

□□ : Enter the appropriate lead forming or taping code.

# Mouser Electronics

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[EKXE401ELL3R9MH15D](#) [EKXE401ELL2R2MHB5D](#) [EKXE401ELL2R7MHB5D](#) [EKXE161ELL150MJC5S](#)  
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