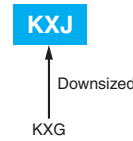


KXJ Series

- Downsized and Longer life from current KXG series
- Endurance with ripple current : 10,000 to 12,000 hours at 105°C
- Rated voltage range : 160 to 450V, Capacitance range : 6.8 to 680μF
- For electronic ballast circuits and other long life applications
- Non solvent resistant type
- RoHS Compliant

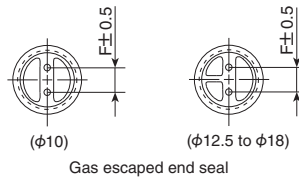
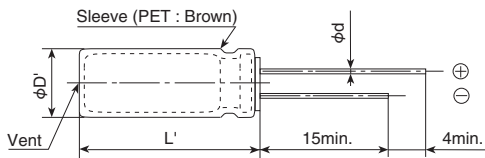


◆ SPECIFICATIONS

| Items | Characteristics | | | |
|--|---|---------------------------------------|-----------------|------------------|
| Category | - 40 to +105°C (160 to 400V _{dc}) -25 to +105°C (420, 450V _{dc}) | | | |
| Temperature Range | | | | |
| Rated Voltage Range | 160 to 450V _{dc} | | | |
| Capacitance Tolerance | ±20% (M) (at 20°C, 120Hz) | | | |
| Leakage Current | | After 1 minute | After 5 minutes | |
| | CV ≤ 1000 | I = 0.1CV + 40 | I = 0.03CV + 15 | |
| | CV > 1000 | 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 (tanδ) | Rated voltage (V _{dc}) | 160 to 250V | 350 to 450V | |
| | tanδ (Max.) | 0.20 | 0.24 | (at 20°C, 120Hz) |
| Low Temperature Characteristics (Max. Impedance Ratio) | Rated voltage (V _{dc}) | 160 to 250V | 350, 400V | 420, 450V |
| | Z(-25°C)/Z(+20°C) | 3 | 5 | 6 |
| | Z(-40°C)/Z(+20°C) | 6 | 6 | - |
| | (at 120Hz) | | | |
| 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 12,000 hours (10,000 hours for 20L max.) at 105°C. | | | |
| | Capacitance change | ≤ ±20% of the initial value | | |
| | D.F. (tanδ) | ≤ 200% 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 | ≤ ±20% of the initial value | | |
| | D.F. (tanδ) | ≤ 200% of the initial specified value | | |
| | Leakage current | ≤ 500% of the initial specified value | | |

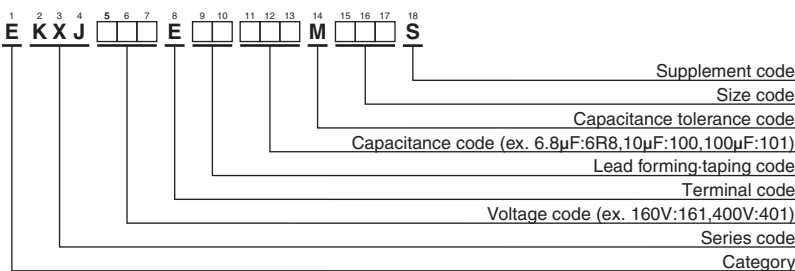
◆ DIMENSIONS [mm]

- Terminal Code : E



| φD | 10 | 12.5 | 14.5 | 16 | 18 |
|-----|------------|------|------|-----|-----|
| φd | 0.6 | 0.6 | 0.8 | 0.8 | 0.8 |
| F | 5.0 | 5.0 | 7.5 | 7.5 | 7.5 |
| φD' | φD+0.5max. | | | | |
| L' | L+1.5max. | | | | |

◆ PART NUMBERING SYSTEM



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

◆ RATED RIPPLE CURRENT MULTIPLIERS

- Frequency Multipliers

| Frequency (Hz) | 120 | 1k | 10k | 100k |
|-----------------|------|------|------|------|
| Less than 100μF | 1.00 | 1.75 | 2.25 | 2.50 |
| 100μF or more | 1.00 | 1.67 | 2.05 | 2.25 |

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

Table with columns: WV (Vdc), Cap (µF), Case size ϕD×L(mm), tanδ, Rated ripple current (mA rms/105°C, 120Hz), Part No. It is divided into four quadrants for WV ratings 160, 220, 200, and 250.

□ : Enter the appropriate lead forming or taping code.



◆STANDARD RATINGS

| WV (Vdc) | Cap (μF) | Case size φD×L(mm) | tanδ | Rated ripple current (mArms/105°C, 120Hz) | Part No. | WV (Vdc) | Cap (μF) | Case size φD×L(mm) | tanδ | Rated ripple current (mArms/105°C, 120Hz) | Part No. |
|----------|----------|--------------------|-------|---|--------------------|----------|----------|--------------------|--------------------|---|--------------------|
| 350 | 12 | 10×16 | 0.24 | 135 | EKXJ351E□□120MJ16S | 420 | 6.8 | 10×16 | 0.24 | 105 | EKXJ421E□□6R8MJ16S |
| | 22 | 10×20 | 0.24 | 200 | EKXJ351E□□220MJ20S | | 12 | 10×20 | 0.24 | 150 | EKXJ421E□□120MJ20S |
| | 27 | 10×25 | 0.24 | 240 | EKXJ351E□□270MJ25S | | 15 | 10×25 | 0.24 | 185 | EKXJ421E□□150MJ25S |
| | 27 | 10×30 | 0.24 | 255 | EKXJ351E□□270MJ30S | | 18 | 10×30 | 0.24 | 215 | EKXJ421E□□180MJ30S |
| | 33 | 12.5×20 | 0.24 | 330 | EKXJ351E□□330MK20S | | 22 | 12.5×20 | 0.24 | 285 | EKXJ421E□□220MK20S |
| | 39 | 10×35 | 0.24 | 325 | EKXJ351E□□390MJ35S | | 27 | 10×35 | 0.24 | 275 | EKXJ421E□□270MJ35S |
| | 47 | 10×40 | 0.24 | 375 | EKXJ351E□□470MJ40S | | 27 | 10×40 | 0.24 | 290 | EKXJ421E□□270MJ40S |
| | 47 | 12.5×25 | 0.24 | 425 | EKXJ351E□□470MK25S | | 27 | 12.5×25 | 0.24 | 340 | EKXJ421E□□270MK25S |
| | 47 | 14.5×20 | 0.24 | 420 | EKXJ351E□□470MU20S | | 27 | 14.5×20 | 0.24 | 335 | EKXJ421E□□270MU20S |
| | 56 | 10×45 | 0.24 | 425 | EKXJ351E□□560MJ45S | | 33 | 10×45 | 0.24 | 335 | EKXJ421E□□330MJ45S |
| | 56 | 12.5×30 | 0.24 | 495 | EKXJ351E□□560MK30S | | 33 | 12.5×30 | 0.24 | 400 | EKXJ421E□□330MK30S |
| | 56 | 16×20 | 0.24 | 475 | EKXJ351E□□560ML20S | | 33 | 16×20 | 0.24 | 385 | EKXJ421E□□330ML20S |
| | 68 | 10×50 | 0.24 | 485 | EKXJ351E□□680MJ50S | | 39 | 10×50 | 0.24 | 375 | EKXJ421E□□390MJ50S |
| | 68 | 12.5×35 | 0.24 | 580 | EKXJ351E□□680MK35S | | 39 | 14.5×25 | 0.24 | 435 | EKXJ421E□□390MU25S |
| | 68 | 14.5×25 | 0.24 | 545 | EKXJ351E□□680MU25S | | 47 | 12.5×35 | 0.24 | 505 | EKXJ421E□□470MK35S |
| | 68 | 18×20 | 0.24 | 550 | EKXJ351E□□680MM20S | | 47 | 16×25 | 0.24 | 500 | EKXJ421E□□470ML25S |
| | 82 | 12.5×40 | 0.24 | 655 | EKXJ351E□□820MK40S | | 47 | 18×20 | 0.24 | 480 | EKXJ421E□□470MM20S |
| | 82 | 14.5×31.5 | 0.24 | 645 | EKXJ351E□□820MUN3S | | 56 | 12.5×40 | 0.24 | 570 | EKXJ421E□□560MK40S |
| | 82 | 16×25 | 0.24 | 625 | EKXJ351E□□820ML25S | | 56 | 12.5×45 | 0.24 | 590 | EKXJ421E□□560MK45S |
| | 100 | 12.5×45 | 0.24 | 750 | EKXJ351E□□101MK45S | | 56 | 14.5×31.5 | 0.24 | 560 | EKXJ421E□□560MUN3S |
| | 100 | 12.5×50 | 0.24 | 770 | EKXJ351E□□101MK50S | | 68 | 12.5×50 | 0.24 | 670 | EKXJ421E□□680MK50S |
| | 100 | 14.5×35.5 | 0.24 | 740 | EKXJ351E□□101MUP1S | | 68 | 14.5×35.5 | 0.24 | 640 | EKXJ421E□□680MUP1S |
| | 100 | 16×31.5 | 0.24 | 740 | EKXJ351E□□101MLN3S | | 68 | 14.5×40 | 0.24 | 660 | EKXJ421E□□680MU40S |
| | 100 | 18×25 | 0.24 | 710 | EKXJ351E□□101MM25S | | 68 | 16×31.5 | 0.24 | 645 | EKXJ421E□□680MLN3S |
| | 120 | 14.5×40 | 0.24 | 835 | EKXJ351E□□121MU40S | | 68 | 18×25 | 0.24 | 615 | EKXJ421E□□680MM25S |
| | 120 | 14.5×45 | 0.24 | 860 | EKXJ351E□□121MU45S | | 82 | 14.5×45 | 0.24 | 750 | EKXJ421E□□820MU45S |
| | 120 | 16×35.5 | 0.24 | 830 | EKXJ351E□□121MLP1S | | 82 | 16×35.5 | 0.24 | 725 | EKXJ421E□□820MLP1S |
| | 150 | 14.5×50 | 0.24 | 980 | EKXJ351E□□151MU50S | | 82 | 18×31.5 | 0.24 | 730 | EKXJ421E□□820MMN3S |
| | 150 | 16×40 | 0.24 | 960 | EKXJ351E□□151ML40S | | 100 | 14.5×50 | 0.24 | 845 | EKXJ421E□□101MU50S |
| | 150 | 16×45 | 0.24 | 975 | EKXJ351E□□151ML45S | | 100 | 16×40 | 0.24 | 825 | EKXJ421E□□101ML40S |
| | 150 | 18×31.5 | 0.24 | 940 | EKXJ351E□□151MMN3S | | 100 | 16×45 | 0.24 | 840 | EKXJ421E□□101ML45S |
| | 180 | 16×50 | 0.24 | 1,090 | EKXJ351E□□181ML50S | | 100 | 18×35.5 | 0.24 | 835 | EKXJ421E□□101MMP1S |
| 180 | 18×35.5 | 0.24 | 1,065 | EKXJ351E□□181MMP1S | 120 | 16×50 | 0.24 | 935 | EKXJ421E□□121ML50S | | |
| 180 | 18×40 | 0.24 | 1,080 | EKXJ351E□□181MM40S | 120 | 18×40 | 0.24 | 930 | EKXJ421E□□121MM40S | | |
| 220 | 18×45 | 0.24 | 1,210 | EKXJ351E□□221MM45S | 120 | 18×45 | 0.24 | 945 | EKXJ421E□□121MM45S | | |
| 220 | 18×50 | 0.24 | 1,220 | EKXJ351E□□221MM50S | 150 | 18×50 | 0.24 | 1,060 | EKXJ421E□□151MM50S | | |
| 400 | 10 | 10×16 | 0.24 | 125 | EKXJ401E□□100MJ16S | 450 | 6.8 | 10×16 | 0.24 | 105 | EKXJ451E□□6R8MJ16S |
| | 18 | 10×20 | 0.24 | 180 | EKXJ401E□□180MJ20S | | 12 | 10×20 | 0.24 | 150 | EKXJ451E□□120MJ20S |
| | 22 | 10×25 | 0.24 | 215 | EKXJ401E□□220MJ25S | | 15 | 10×25 | 0.24 | 185 | EKXJ451E□□150MJ25S |
| | 27 | 10×30 | 0.24 | 255 | EKXJ401E□□270MJ30S | | 18 | 10×30 | 0.24 | 215 | EKXJ451E□□180MJ30S |
| | 27 | 12.5×20 | 0.24 | 300 | EKXJ401E□□270MK20S | | 18 | 12.5×20 | 0.24 | 255 | EKXJ451E□□180MK20S |
| | 33 | 10×35 | 0.24 | 300 | EKXJ401E□□330MJ35S | | 22 | 10×35 | 0.24 | 250 | EKXJ451E□□220MJ35S |
| | 39 | 10×40 | 0.24 | 340 | EKXJ401E□□390MJ40S | | 27 | 10×40 | 0.24 | 290 | EKXJ451E□□270MJ40S |
| | 39 | 10×45 | 0.24 | 355 | EKXJ401E□□390MJ45S | | 27 | 10×45 | 0.24 | 305 | EKXJ451E□□270MJ45S |
| | 39 | 12.5×25 | 0.24 | 390 | EKXJ401E□□390MK25S | | 27 | 12.5×25 | 0.24 | 340 | EKXJ451E□□270MK25S |
| | 39 | 14.5×20 | 0.24 | 385 | EKXJ401E□□390MU20S | | 27 | 14.5×20 | 0.24 | 335 | EKXJ451E□□270MU20S |
| | 47 | 12.5×30 | 0.24 | 455 | EKXJ401E□□470MK30S | | 33 | 12.5×30 | 0.24 | 400 | EKXJ451E□□330MK30S |
| | 47 | 16×20 | 0.24 | 435 | EKXJ401E□□470ML20S | | 33 | 14.5×25 | 0.24 | 400 | EKXJ451E□□330MU25S |
| | 56 | 10×50 | 0.24 | 440 | EKXJ401E□□560MJ50S | | 33 | 16×20 | 0.24 | 385 | EKXJ451E□□330ML20S |
| | 56 | 12.5×35 | 0.24 | 525 | EKXJ401E□□560MK35S | | 39 | 10×50 | 0.24 | 375 | EKXJ451E□□390MJ50S |
| | 56 | 14.5×25 | 0.24 | 495 | EKXJ401E□□560MU25S | | 39 | 12.5×35 | 0.24 | 460 | EKXJ451E□□390MK35S |
| | 56 | 18×20 | 0.24 | 500 | EKXJ401E□□560MM20S | | 39 | 18×20 | 0.24 | 440 | EKXJ451E□□390MM20S |
| | 68 | 12.5×40 | 0.24 | 600 | EKXJ401E□□680MK40S | | 47 | 12.5×40 | 0.24 | 525 | EKXJ451E□□470MK40S |
| | 68 | 14.5×31.5 | 0.24 | 585 | EKXJ401E□□680MUN3S | | 47 | 14.5×31.5 | 0.24 | 515 | EKXJ451E□□470MUN3S |
| | 68 | 16×25 | 0.24 | 570 | EKXJ401E□□680ML25S | | 47 | 16×25 | 0.24 | 500 | EKXJ451E□□470ML25S |
| | 82 | 12.5×45 | 0.24 | 680 | EKXJ401E□□820MK45S | | 56 | 12.5×45 | 0.24 | 590 | EKXJ451E□□560MK45S |
| | 82 | 12.5×50 | 0.24 | 700 | EKXJ401E□□820MK50S | | 56 | 14.5×35.5 | 0.24 | 580 | EKXJ451E□□560MUP1S |
| | 82 | 14.5×35.5 | 0.24 | 670 | EKXJ401E□□820MUP1S | | 56 | 16×31.5 | 0.24 | 585 | EKXJ451E□□560MLN3S |
| | 82 | 16×31.5 | 0.24 | 670 | EKXJ401E□□820MLN3S | | 56 | 18×25 | 0.24 | 560 | EKXJ451E□□560MM25S |
| | 82 | 18×25 | 0.24 | 640 | EKXJ401E□□820MM25S | | 68 | 12.5×50 | 0.24 | 670 | EKXJ451E□□680MK50S |
| | 100 | 14.5×40 | 0.24 | 760 | EKXJ401E□□101MU40S | | 68 | 14.5×40 | 0.24 | 660 | EKXJ451E□□680MU40S |
| | 100 | 14.5×45 | 0.24 | 785 | EKXJ401E□□101MU45S | | 68 | 14.5×45 | 0.24 | 680 | EKXJ451E□□680MU45S |
| | 100 | 16×35.5 | 0.24 | 760 | EKXJ401E□□101MLP1S | | 68 | 16×35.5 | 0.24 | 660 | EKXJ451E□□680MLP1S |
| | 120 | 14.5×50 | 0.24 | 875 | EKXJ401E□□121MU50S | | 82 | 14.5×50 | 0.24 | 765 | EKXJ451E□□820MU50S |
| | 120 | 16×40 | 0.24 | 860 | EKXJ401E□□121ML40S | | 82 | 16×40 | 0.24 | 750 | EKXJ451E□□820ML40S |
| | 120 | 16×45 | 0.24 | 875 | EKXJ401E□□121ML45S | | 82 | 16×45 | 0.24 | 760 | EKXJ451E□□820ML45S |
| | 120 | 18×31.5 | 0.24 | 840 | EKXJ401E□□121MMN3S | | 82 | 18×31.5 | 0.24 | 730 | EKXJ451E□□820MMN3S |
| | 120 | 18×35.5 | 0.24 | 870 | EKXJ401E□□121MMP1S | | 100 | 16×50 | 0.24 | 855 | EKXJ451E□□101ML50S |
| 150 | 16×50 | 0.24 | 995 | EKXJ401E□□151ML50S | 100 | 18×35.5 | 0.24 | 835 | EKXJ451E□□101MMP1S | | |
| 150 | 18×40 | 0.24 | 985 | EKXJ401E□□151MM40S | 120 | 18×40 | 0.24 | 930 | EKXJ451E□□121MM40S | | |
| 180 | 18×45 | 0.24 | 1,095 | EKXJ401E□□181MM45S | 120 | 18×45 | 0.24 | 945 | EKXJ451E□□121MM45S | | |
| 220 | 18×50 | 0.24 | 1,220 | EKXJ401E□□221MM50S | 150 | 18×50 | 0.24 | 1,060 | EKXJ451E□□151MM50S | | |

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