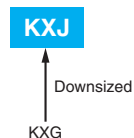


# KXJ Series

- Downsized and Longer life from current KXG series
- Endurance with ripple current : 8,000 to 12,000 hours at 105°C
- Rated voltage range : 160 to 500V, Capacitance range : 6.8 to 680μF
- For electronic ballast circuits and other long life applications
- Non solvent resistant type
- RoHS2 Compliant
- AEC-Q200 compliant : Please contact Chemi-Con for more details, test data, information.



**500V  
Lineup!**

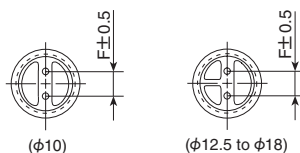
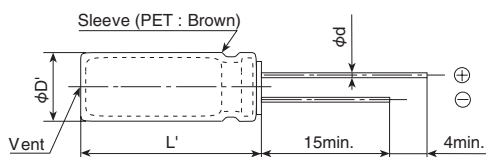


## SPECIFICATIONS

| Items                                                  | Characteristics                                                                                                                                                                                                                                                                       |                                                    |                 |                                                 |
|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|-----------------|-------------------------------------------------|
| Category                                               | −40 to +105℃ (160 to 450V <sub>dc</sub> )    -25 to +105℃ (500V <sub>dc</sub> )                                                                                                                                                                                                       |                                                    |                 |                                                 |
| Temperature Range                                      |                                                                                                                                                                                                                                                                                       |                                                    |                 |                                                 |
| Rated Voltage Range                                    | 160 to 500V <sub>dc</sub>                                                                                                                                                                                                                                                             |                                                    |                 |                                                 |
| Capacitance Tolerance                                  | ±20% (M) (at 20℃, 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℃)                                                                                                                                                                                    |                                                    |                 |                                                 |
| Dissipation Factor (tan δ)                             | Rated voltage (V <sub>dc</sub> )                                                                                                                                                                                                                                                      | 160 to 250V                                        | 350 to 500V     | (at 20℃, 120Hz)                                 |
|                                                        | tan δ (Max.)                                                                                                                                                                                                                                                                          | 0.20                                               | 0.24            |                                                 |
| Low Temperature Characteristics (Max. Impedance Ratio) | Rated voltage (V <sub>dc</sub> )                                                                                                                                                                                                                                                      | 160 to 250V                                        | 350, 400V       | 420 to 500V                                     |
|                                                        | Z(−25℃)/Z(+20℃)                                                                                                                                                                                                                                                                       | 3                                                  | 5               | 6                                               |
|                                                        | Z(−40℃)/Z(+20℃)                                                                                                                                                                                                                                                                       | 6                                                  | 6               | — (at 120Hz)                                    |
| Endurance                                              | The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjected to DC voltage with the rated ripple current is applied(the peak voltage shall not exceed the rated voltage) for the specified time at 105℃.                                   |                                                    |                 |                                                 |
|                                                        | Rated voltage (V <sub>dc</sub> )                                                                                                                                                                                                                                                      | 160 to 450V                                        |                 | 500V                                            |
|                                                        | Time                                                                                                                                                                                                                                                                                  | 16L to 20L : 10,000hours, 25L to 50L : 12,000hours |                 | φ 10 : 8,000hours, φ 12.5 to φ 18 : 10,000hours |
|                                                        | Capacitance change                                                                                                                                                                                                                                                                    | ≤ ±20% of the initial value                        |                 |                                                 |
|                                                        | D.F. (tan δ)                                                                                                                                                                                                                                                                          | ≤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℃ after exposing them for 1,000 hours at 105℃ 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. (tan δ)                                                                                                                                                                                                                                                                          | ≤200% of the initial specified value               |                 |                                                 |
|                                                        | Leakage current                                                                                                                                                                                                                                                                       | ≤500% of the initial specified value               |                 |                                                 |

## DIMENSIONS [mm]

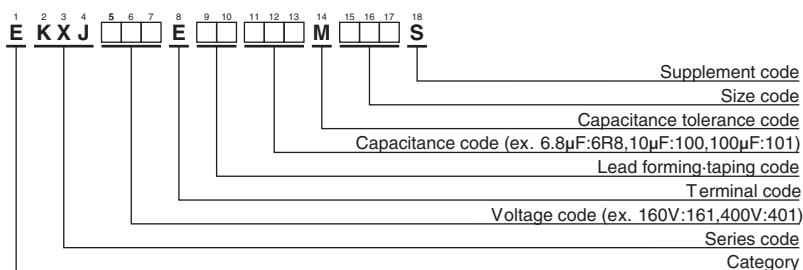
### Terminal Code : E



Gas escaped end seal

| 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)"

## ◆STANDARD RATINGS

| WV<br>(V <sub>dc</sub> ) | Cap<br>(μF) | Case size<br>φD×L(mm) | tan δ | Rated ripple<br>current<br>(mA <sub>rms</sub> /105°C, 120Hz) | Part No.           | WV<br>(V <sub>dc</sub> ) | Cap<br>(μF) | Case size<br>φD×L(mm) | tan δ | Rated ripple<br>current<br>(mA <sub>rms</sub> /105°C, 120Hz) | Part No.           |
|--------------------------|-------------|-----------------------|-------|--------------------------------------------------------------|--------------------|--------------------------|-------------|-----------------------|-------|--------------------------------------------------------------|--------------------|
| 160                      | 39          | 10×16                 | 0.20  | 245                                                          | EKXJ161E□□390MJ16S | 220                      | 27          | 10×16                 | 0.20  | 200                                                          | EKXJ221E□□270MJ16S |
|                          | 56          | 10×20                 | 0.20  | 315                                                          | EKXJ161E□□560MJ20S |                          | 39          | 10×20                 | 0.20  | 265                                                          | EKXJ221E□□390MJ20S |
|                          | 82          | 10×25                 | 0.20  | 415                                                          | EKXJ161E□□820MJ25S |                          | 56          | 10×25                 | 0.20  | 345                                                          | EKXJ221E□□560MJ25S |
|                          | 82          | 10×30                 | 0.20  | 445                                                          | EKXJ161E□□820MJ30S |                          | 56          | 10×30                 | 0.20  | 370                                                          | EKXJ221E□□560MJ30S |
|                          | 100         | 12.5×20               | 0.20  | 575                                                          | EKXJ161E□□101MK20S |                          | 68          | 12.5×20               | 0.20  | 475                                                          | EKXJ221E□□680MK20S |
|                          | 120         | 10×35                 | 0.20  | 570                                                          | EKXJ161E□□121MJ35S |                          | 82          | 10×35                 | 0.20  | 470                                                          | EKXJ221E□□820MJ35S |
|                          | 120         | 14.5×20               | 0.20  | 675                                                          | EKXJ161E□□121MU20S |                          | 82          | 14.5×20               | 0.20  | 555                                                          | EKXJ221E□□820MU20S |
|                          | 150         | 10×40                 | 0.20  | 665                                                          | EKXJ161E□□151MJ40S |                          | 100         | 10×40                 | 0.20  | 545                                                          | EKXJ221E□□101MJ40S |
|                          | 150         | 10×45                 | 0.20  | 695                                                          | EKXJ161E□□151MJ45S |                          | 100         | 10×45                 | 0.20  | 565                                                          | EKXJ221E□□101MJ45S |
|                          | 150         | 12.5×25               | 0.20  | 765                                                          | EKXJ161E□□151MK25S |                          | 100         | 12.5×25               | 0.20  | 625                                                          | EKXJ221E□□101MK25S |
|                          | 180         | 10×50                 | 0.20  | 785                                                          | EKXJ161E□□181MJ50S |                          | 120         | 10×50                 | 0.20  | 645                                                          | EKXJ221E□□121MJ50S |
|                          | 180         | 12.5×30               | 0.20  | 885                                                          | EKXJ161E□□181MK30S |                          | 120         | 12.5×30               | 0.20  | 725                                                          | EKXJ221E□□121MK30S |
|                          | 180         | 14.5×25               | 0.20  | 890                                                          | EKXJ161E□□181MU25S |                          | 120         | 14.5×25               | 0.20  | 725                                                          | EKXJ221E□□121MU25S |
|                          | 180         | 16×20                 | 0.20  | 855                                                          | EKXJ161E□□181ML20S |                          | 120         | 16×20                 | 0.20  | 695                                                          | EKXJ221E□□121ML20S |
|                          | 220         | 12.5×35               | 0.20  | 1,040                                                        | EKXJ161E□□221MK35S |                          | 150         | 12.5×35               | 0.20  | 860                                                          | EKXJ221E□□151MK35S |
|                          | 220         | 16×25                 | 0.20  | 1,020                                                        | EKXJ161E□□221ML25S |                          | 150         | 16×25                 | 0.20  | 845                                                          | EKXJ221E□□151ML25S |
|                          | 220         | 18×20                 | 0.20  | 990                                                          | EKXJ161E□□221MM20S |                          | 150         | 18×20                 | 0.20  | 815                                                          | EKXJ221E□□151MM20S |
|                          | 270         | 12.5×40               | 0.20  | 1,190                                                        | EKXJ161E□□271MK40S |                          | 180         | 12.5×40               | 0.20  | 975                                                          | EKXJ221E□□181MK40S |
|                          | 270         | 12.5×45               | 0.20  | 1,230                                                        | EKXJ161E□□271MK45S |                          | 180         | 12.5×45               | 0.20  | 1,005                                                        | EKXJ221E□□181MK45S |
|                          | 270         | 14.5×31.5             | 0.20  | 1,170                                                        | EKXJ161E□□271MUN3S |                          | 180         | 14.5×31.5             | 0.20  | 955                                                          | EKXJ221E□□181MUN3S |
|                          | 270         | 14.5×35.5             | 0.20  | 1,210                                                        | EKXJ161E□□271MUP1S |                          | 220         | 12.5×50               | 0.20  | 1,145                                                        | EKXJ221E□□221MK50S |
|                          | 330         | 12.5×50               | 0.20  | 1,400                                                        | EKXJ161E□□331MK50S |                          | 220         | 14.5×35.5             | 0.20  | 1,095                                                        | EKXJ221E□□221MUP1S |
|                          | 330         | 14.5×40               | 0.20  | 1,385                                                        | EKXJ161E□□331MU40S |                          | 220         | 14.5×40               | 0.20  | 1,130                                                        | EKXJ221E□□221MU40S |
|                          | 330         | 16×31.5               | 0.20  | 1,350                                                        | EKXJ161E□□331MLN3S |                          | 220         | 16×31.5               | 0.20  | 1,100                                                        | EKXJ221E□□221MLN3S |
|                          | 330         | 18×25                 | 0.20  | 1,290                                                        | EKXJ161E□□331MM25S |                          | 220         | 18×25                 | 0.20  | 1,050                                                        | EKXJ221E□□221MM25S |
|                          | 390         | 14.5×45               | 0.20  | 1,545                                                        | EKXJ161E□□391MU45S |                          | 270         | 14.5×45               | 0.20  | 1,285                                                        | EKXJ221E□□271MU45S |
|                          | 390         | 16×35.5               | 0.20  | 1,500                                                        | EKXJ161E□□391MLP1S |                          | 270         | 14.5×50               | 0.20  | 1,315                                                        | EKXJ221E□□271MU50S |
|                          | 470         | 14.5×50               | 0.20  | 1,735                                                        | EKXJ161E□□471MU50S |                          | 270         | 16×35.5               | 0.20  | 1,245                                                        | EKXJ221E□□271MLP1S |
|                          | 470         | 16×40                 | 0.20  | 1,700                                                        | EKXJ161E□□471ML40S |                          | 270         | 18×31.5               | 0.20  | 1,260                                                        | EKXJ221E□□271MMN3S |
|                          | 470         | 16×45                 | 0.20  | 1,730                                                        | EKXJ161E□□471ML45S |                          | 330         | 16×40                 | 0.20  | 1,425                                                        | EKXJ221E□□331ML40S |
|                          | 470         | 18×31.5               | 0.20  | 1,660                                                        | EKXJ161E□□471MMN3S |                          | 330         | 16×45                 | 0.20  | 1,450                                                        | EKXJ221E□□331ML45S |
|                          | 470         | 18×35.5               | 0.20  | 1,715                                                        | EKXJ161E□□471MMP1S |                          | 330         | 18×35.5               | 0.20  | 1,440                                                        | EKXJ221E□□331MMP1S |
|                          | 560         | 16×50                 | 0.20  | 1,920                                                        | EKXJ161E□□561ML50S |                          | 390         | 16×50                 | 0.20  | 1,600                                                        | EKXJ221E□□391ML50S |
|                          | 560         | 18×40                 | 0.20  | 1,905                                                        | EKXJ161E□□561MM40S |                          | 390         | 18×40                 | 0.20  | 1,590                                                        | EKXJ221E□□391MM40S |
|                          | 680         | 18×45                 | 0.20  | 2,130                                                        | EKXJ161E□□681MM45S |                          | 390         | 18×45                 | 0.20  | 1,620                                                        | EKXJ221E□□391MM45S |
|                          | 680         | 18×50                 | 0.20  | 2,145                                                        | EKXJ161E□□681MM50S |                          | 470         | 18×50                 | 0.20  | 1,785                                                        | EKXJ221E□□471MM50S |
| 200                      | 27          | 10×16                 | 0.20  | 200                                                          | EKXJ201E□□270MJ16S | 250                      | 22          | 10×16                 | 0.20  | 185                                                          | EKXJ251E□□220MJ16S |
|                          | 47          | 10×20                 | 0.20  | 290                                                          | EKXJ201E□□470MJ20S |                          | 33          | 10×20                 | 0.20  | 240                                                          | EKXJ251E□□330MJ20S |
|                          | 56          | 10×25                 | 0.20  | 345                                                          | EKXJ201E□□560MJ25S |                          | 47          | 10×25                 | 0.20  | 315                                                          | EKXJ251E□□470MJ25S |
|                          | 68          | 10×30                 | 0.20  | 405                                                          | EKXJ201E□□680MJ30S |                          | 47          | 10×30                 | 0.20  | 340                                                          | EKXJ251E□□470MJ30S |
|                          | 82          | 12.5×20               | 0.20  | 520                                                          | EKXJ201E□□820MK20S |                          | 56          | 12.5×20               | 0.20  | 430                                                          | EKXJ251E□□560MK20S |
|                          | 100         | 10×35                 | 0.20  | 520                                                          | EKXJ201E□□101MJ35S |                          | 68          | 10×35                 | 0.20  | 430                                                          | EKXJ251E□□680MJ35S |
|                          | 100         | 12.5×25               | 0.20  | 625                                                          | EKXJ201E□□101MK25S |                          | 68          | 14.5×20               | 0.20  | 505                                                          | EKXJ251E□□680MU20S |
|                          | 100         | 14.5×20               | 0.20  | 615                                                          | EKXJ201E□□101MU20S |                          | 82          | 10×40                 | 0.20  | 495                                                          | EKXJ251E□□820MJ40S |
|                          | 120         | 10×40                 | 0.20  | 595                                                          | EKXJ201E□□121MJ40S |                          | 82          | 10×45                 | 0.20  | 515                                                          | EKXJ251E□□820MJ45S |
|                          | 120         | 10×45                 | 0.20  | 620                                                          | EKXJ201E□□121MJ45S |                          | 82          | 12.5×25               | 0.20  | 565                                                          | EKXJ251E□□820MK25S |
|                          | 120         | 12.5×30               | 0.20  | 725                                                          | EKXJ201E□□121MK30S |                          | 100         | 10×50                 | 0.20  | 585                                                          | EKXJ251E□□101MJ50S |
|                          | 120         | 16×20                 | 0.20  | 695                                                          | EKXJ201E□□121ML20S |                          | 100         | 12.5×30               | 0.20  | 660                                                          | EKXJ251E□□101MK30S |
|                          | 150         | 10×50                 | 0.20  | 720                                                          | EKXJ201E□□151MJ50S |                          | 100         | 14.5×25               | 0.20  | 665                                                          | EKXJ251E□□101MU25S |
|                          | 150         | 12.5×35               | 0.20  | 860                                                          | EKXJ201E□□151MK35S |                          | 100         | 16×20                 | 0.20  | 635                                                          | EKXJ251E□□101ML20S |
|                          | 150         | 14.5×25               | 0.20  | 810                                                          | EKXJ201E□□151MU25S |                          | 120         | 12.5×35               | 0.20  | 770                                                          | EKXJ251E□□121MK35S |
|                          | 180         | 14.5×31.5             | 0.20  | 955                                                          | EKXJ201E□□181MUN3S |                          | 120         | 16×25                 | 0.20  | 755                                                          | EKXJ251E□□121ML25S |
|                          | 180         | 16×25                 | 0.20  | 925                                                          | EKXJ201E□□181ML25S |                          | 120         | 18×20                 | 0.20  | 730                                                          | EKXJ251E□□121MM20S |
|                          | 180         | 18×20                 | 0.20  | 895                                                          | EKXJ201E□□181MM20S |                          | 150         | 12.5×40               | 0.20  | 890                                                          | EKXJ251E□□151MK40S |
|                          | 220         | 12.5×40               | 0.20  | 1,075                                                        | EKXJ201E□□221MK40S |                          | 150         | 12.5×45               | 0.20  | 920                                                          | EKXJ251E□□151MK45S |
|                          | 220         | 12.5×45               | 0.20  | 1,110                                                        | EKXJ201E□□221MK45S |                          | 150         | 14.5×31.5             | 0.20  | 870                                                          | EKXJ251E□□151MMN3S |
|                          | 220         | 14.5×35.5             | 0.20  | 1,095                                                        | EKXJ201E□□221MUP1S |                          | 180         | 12.5×50               | 0.20  | 1,035                                                        | EKXJ251E□□181MK50S |
|                          | 220         | 18×25                 | 0.20  | 1,050                                                        | EKXJ201E□□221MM25S |                          | 180         | 14.5×35.5             | 0.20  | 990                                                          | EKXJ251E□□181MUP1S |
|                          | 270         | 12.5×50               | 0.20  | 1,265                                                        | EKXJ201E□□271MK50S |                          | 180         | 14.5×40               | 0.20  | 1,020                                                        | EKXJ251E□□181MU40S |
|                          | 270         | 14.5×40               | 0.20  | 1,250                                                        | EKXJ201E□□271MU40S |                          | 180         | 16×31.5               | 0.20  | 995                                                          | EKXJ251E□□181MLN3S |
|                          | 270         | 14.5×45               | 0.20  | 1,290                                                        | EKXJ201E□□271MU45S |                          | 180         | 18×25                 | 0.20  | 950                                                          | EKXJ251E□□181MM25S |
|                          | 270         | 16×31.5               | 0.20  | 1,220                                                        | EKXJ201E□□271MLN3S |                          | 220         | 14.5×45               | 0.20  | 1,160                                                        | EKXJ251E□□221MU45S |
|                          | 270         | 16×35.5               | 0.20  | 1,250                                                        | EKXJ201E□□271MLP1S |                          | 220         | 14.5×50               | 0.20  | 1,185                                                        | EKXJ251E□□221MU50S |
|                          | 330         | 14.5×50               | 0.20  | 1,450                                                        | EKXJ201E□□331MU50S |                          | 220         | 16×35.5               | 0.20  | 1,125                                                        | EKXJ251E□□221MLP1S |
|                          | 330         | 16×40                 | 0.20  | 1,425                                                        | EKXJ201E□□331ML40S |                          | 220         | 18×31.5               | 0.20  | 1,135                                                        | EKXJ251E□□221MMN3S |
|                          | 330         | 18×31.5               | 0.20  | 1,395                                                        | EKXJ201E□□331MMN3S |                          | 270         | 16×40                 | 0.20  | 1,285                                                        | EKXJ251E□□271ML40S |
|                          | 390         | 16×45                 | 0.20  | 1,575                                                        | EKXJ201E□□391ML45S |                          | 270         | 16×45                 | 0.20  | 1,310                                                        | EKXJ251E□□271ML45S |
|                          | 390         | 18×35.5               | 0.20  | 1,565                                                        | EKXJ201E□□391MMP1S |                          | 270         | 18×35.5               | 0.20  | 1,300                                                        | EKXJ251E□□271MMP1S |
|                          | 470         | 16×50                 | 0.20  | 1,755                                                        | EKXJ201E□□471ML50S |                          | 330         | 16×50                 | 0.20  | 1,475                                                        | EKXJ251E□□331ML50S |
|                          | 470         | 18×40                 | 0.20  | 1,745                                                        | EKXJ201E□□471MM40S |                          | 330         | 18×40                 | 0.20  | 1,460                                                        | EKXJ251E□□331MM40S |
|                          | 470         | 18×45                 | 0.20  | 1,770                                                        | EKXJ201E□□471MM45S |                          | 330         | 18×45                 | 0.20  | 1,485                                                        | EKXJ251E□□331MM45S |
|                          | 560         | 18×50                 | 0.20  | 1,945                                                        | EKXJ201E□□561MM50S |                          | 390         | 18×50                 | 0.20  | 1,625                                                        | EKXJ251E□□391MM50S |

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

Product specifications in this catalog are subject to change without notice. Request our product specifications before purchase and/or use. Please use our products based on the information contained in this catalog and product specifications.

## ◆STANDARD RATINGS

| WV (V <sub>dc</sub> ) | Cap (μF) | Case size<br>φD×L(mm) | tan δ | Rated ripple<br>current<br>(mA <sub>rms</sub> /105°C, 120Hz) | Part No.           | WV (V <sub>dc</sub> ) | Cap (μF) | Case size<br>φD×L(mm) | tan δ | Rated ripple<br>current<br>(mA <sub>rms</sub> /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  | 945                                                          | 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.

Product specifications in this catalog are subject to change without notice. Request our product specifications before purchase and/or use. Please use our products based on the information contained in this catalog and product specifications.

◆ **STANDARD RATINGS**

| WV<br>(V <sub>dc</sub> ) | Cap<br>(μF) | Case size<br>φD×L(mm) | tan δ | Rated ripple<br>current<br>(mA <sub>rms</sub> /105°C, 120Hz) | Part No.           |
|--------------------------|-------------|-----------------------|-------|--------------------------------------------------------------|--------------------|
| 500                      | 6.8         | 10 × 20               | 0.24  | 90                                                           | EKXJ501E□□6R8MJ20S |
|                          | 8.2         | 10 × 25               | 0.24  | 110                                                          | EKXJ501E□□8R2MJ25S |
|                          | 10          | 10 × 30               | 0.24  | 130                                                          | EKXJ501E□□100MJ30S |
|                          | 12          | 12.5 × 20             | 0.24  | 135                                                          | EKXJ501E□□120MK20S |
|                          | 15          | 10 × 35               | 0.24  | 170                                                          | EKXJ501E□□150MJ35S |
|                          | 15          | 10 × 40               | 0.24  | 175                                                          | EKXJ501E□□150MJ40S |
|                          | 15          | 12.5 × 25             | 0.24  | 165                                                          | EKXJ501E□□150MK25S |
|                          | 18          | 10 × 45               | 0.24  | 190                                                          | EKXJ501E□□180MJ45S |
|                          | 18          | 12.5 × 30             | 0.24  | 190                                                          | EKXJ501E□□180MK30S |
|                          | 22          | 10 × 50               | 0.24  | 230                                                          | EKXJ501E□□220MJ50S |
|                          | 22          | 12.5 × 35             | 0.24  | 220                                                          | EKXJ501E□□220MK35S |
|                          | 27          | 12.5 × 40             | 0.24  | 260                                                          | EKXJ501E□□270MK40S |
|                          | 33          | 12.5 × 45             | 0.24  | 285                                                          | EKXJ501E□□330MK45S |
|                          | 39          | 12.5 × 50             | 0.24  | 330                                                          | EKXJ501E□□390MK50S |

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

◆ **RATED RIPPLE CURRENT MULTIPLIERS**

● Frequency Multipliers

(160 to 450V<sub>dc</sub>)

| Capacitance(μF) | Frequency(Hz) | 120  | 1k   | 10k  | 100k |
|-----------------|---------------|------|------|------|------|
| 6.8 to 82       |               | 1.00 | 1.75 | 2.25 | 2.50 |
| 100 to 680      |               | 1.00 | 1.67 | 2.05 | 2.25 |

(500V<sub>dc</sub>)

| Capacitance(μF) | Frequency(Hz) | 120  | 1k   | 10k  | 100k |
|-----------------|---------------|------|------|------|------|
| 6.8 to 22       |               | 1.00 | 1.78 | 2.30 | 2.59 |
| 27 to 39        |               | 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.