

# 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!**

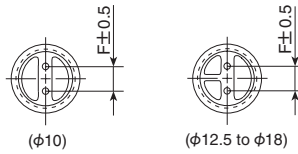


## SPECIFICATIONS

| Items  | Characteristics   |  |                       |  |
|--|---|--|-----------------------|--|
| Category   | -40 to +105°C (160 to 450V <sub>dc</sub> )    -25 to +105°C (500V <sub>dc</sub> )   |  |                       |  |
| Temperature Range                                      |   |  |                       |  |
| Rated Voltage Range                                    | 160 to 500V <sub>dc</sub>   |  |                       |  |
| 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 (tan δ)                             | Rated voltage (V <sub>dc</sub> )  | 160 to 250V  | 350 to 500V           |  |
|  | tan δ (Max.)  | 0.20   | 0.24 (at 20°C, 120Hz) |  |
| Low Temperature Characteristics (Max. Impedance Ratio) | Rated voltage (V <sub>dc</sub> )  | 160 to 250V  | 350, 400V             | 420 to 500V                                  |
|  | Z(-25°C)/Z(+20°C)   | 3  | 5                     | 6 (at 120Hz)                                 |
|  | Z(-40°C)/Z(+20°C)   | 6  | 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 the specified time at 105°C.                                  |  |                       |  |
|  | Rated voltage (V <sub>dc</sub> )  | 160 to 450V  |                       | 500V   |
|  | Time  | 16L to 20L : 10,000hours, 25L to 50L : 12,000hours |                       | φ10 : 8,000hours, φ12.5 to φ18 : 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°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. (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□□101MJ25S |
|                          | 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□□151MUN3S |
|                          | 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.

◆ 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.           |
|--------------------------|-------------|-----------------------|-------|--|--------------------|--------------------------|-------------|-----------------------|--------------------|--|--------------------|
|                          |             |                       |       |  |                    |                          |             |                       |                    |  |                    |
| 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□□181MU50S   | 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.

◆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.