

# KZE Series

- Newly innovative electrolyte is employed to minimize impedance
- Endurance with ripple current: 1,000 to 5,000 hours at 105°C
- Non solvent resistant type
- RoHS Compliant

KZH P142

Lower Z

KZE

Lower Z

KY P153

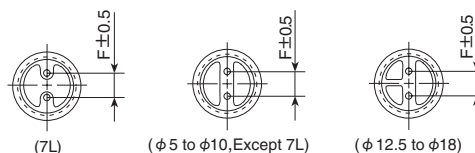
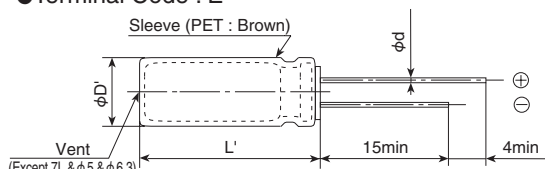


## SPECIFICATIONS

| Items                                                  | Characteristics                                                                                                                                                                                                                                                                     |                                                                                                           |      |      |      |      |      |      |      |      |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|------|------|------|------|------|------|------|------|
| Category                                               | −40 to +105℃                                                                                                                                                                                                                                                                        |                                                                                                           |      |      |      |      |      |      |      |      |
| Temperature Range                                      |                                                                                                                                                                                                                                                                                     |                                                                                                           |      |      |      |      |      |      |      |      |
| Rated Voltage Range                                    | 6.3 to 100V <sub>dc</sub>                                                                                                                                                                                                                                                           |                                                                                                           |      |      |      |      |      |      |      |      |
| Capacitance Tolerance                                  | ±20% (M) (at 20℃, 120Hz)                                                                                                                                                                                                                                                            |                                                                                                           |      |      |      |      |      |      |      |      |
| Leakage Current                                        | I=0.01CV or 3μA, whichever is greater.<br>Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20℃ after 2 minutes)                                                                                                                        |                                                                                                           |      |      |      |      |      |      |      |      |
| Dissipation Factor (tanδ)                              | Rated voltage (V <sub>dc</sub> )                                                                                                                                                                                                                                                    | 6.3V                                                                                                      | 10V  | 16V  | 25V  | 35V  | 50V  | 63V  | 80V  | 100V |
|                                                        | tanδ (Max.)                                                                                                                                                                                                                                                                         | 0.22                                                                                                      | 0.19 | 0.16 | 0.14 | 0.12 | 0.10 | 0.09 | 0.09 | 0.08 |
|                                                        | When nominal capacitance exceeds 1,000μF, add 0.02 to the value above for each 1,000μF increase. (at 20℃, 120Hz)                                                                                                                                                                    |                                                                                                           |      |      |      |      |      |      |      |      |
| Low Temperature Characteristics (Max. Impedance Ratio) | Z (-25℃) / Z (+20℃)                                                                                                                                                                                                                                                                 | 2max.                                                                                                     |      |      |      |      |      |      |      |      |
|                                                        | Z (-40℃) / Z (+20℃)                                                                                                                                                                                                                                                                 | 3max.                                                                                                     |      |      |      |      |      |      |      |      |
|                                                        | (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 period of time at 105℃.                      |                                                                                                           |      |      |      |      |      |      |      |      |
|                                                        | Time                                                                                                                                                                                                                                                                                | 7L : 1,000hours   ϕ5 & ϕ6.3 : 2,000hours   ϕ8 : 3,000hours   ϕ10 : 4,000hours   ϕ12.5 to ϕ18 : 5,000hours |      |      |      |      |      |      |      |      |
|                                                        | Capacitance change                                                                                                                                                                                                                                                                  | ≤ ±25% 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 500 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                                                                                                                                                                                                                                                                  | ≤ ±25% of the initial value                                                                               |      |      |      |      |      |      |      |      |
|                                                        | D.F. (tan δ)                                                                                                                                                                                                                                                                        | ≤ 200% of the initial specified value                                                                     |      |      |      |      |      |      |      |      |
|                                                        | Leakage current                                                                                                                                                                                                                                                                     | ≤ The initial specified value                                                                             |      |      |      |      |      |      |      |      |

## DIMENSIONS [mm]

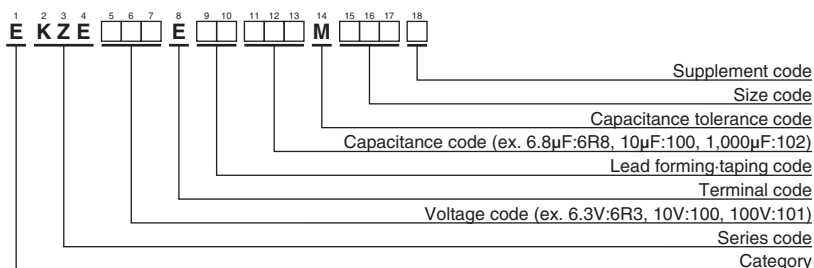
### Terminal Code : E



Gas escape end seal

|     |                            |      |      |          |        |
|-----|----------------------------|------|------|----------|--------|
| φD  | 5                          | 6.3  | 8    | 10, 12.5 | 16, 18 |
| φD' | 0.45                       | 0.45 | 0.45 | —        | —      |
| φL  | 0.5                        | 0.5  | 0.6  | 0.6      | 0.8    |
| F   | 2.0                        | 2.5  | 3.5  | 5.0      | 7.5    |
| φD' | φD+0.5max.                 |      |      |          |        |
| L'  | L+1.5max. (7L : L+1.0max.) |      |      |          |        |

## PART NUMBERING SYSTEM



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

## ◆STANDARD RATINGS

| WV<br>(Vdc) | Cap<br>(μF) | Case size<br>φD×L(mm) | Impedance<br>(Ω max/100kHz) |       | Rated<br>ripple<br>current<br>(mA rms/<br>105°C,<br>100kHz) | Part No.           |
|-------------|-------------|-----------------------|-----------------------------|-------|-------------------------------------------------------------|--------------------|
|             |             |                       | 20°C                        | -10°C |                                                             |                    |
| 6.3         | 68          | 5×7                   | 0.43                        | 1.3   | 210                                                         | EKZE6R3E□□680ME07D |
|             | 150         | 5×11                  | 0.30                        | 1.0   | 250                                                         | EKZE6R3E□□151ME11D |
|             | 150         | 6.3×7                 | 0.23                        | 0.69  | 300                                                         | EKZE6R3E□□151MF07D |
|             | 220         | 8×7                   | 0.15                        | 0.45  | 380                                                         | EKZE6R3E□□221MH07D |
|             | 330         | 6.3×11                | 0.13                        | 0.41  | 405                                                         | EKZE6R3E□□331MF11D |
|             | 560         | 8×11.5                | 0.072                       | 0.22  | 760                                                         | EKZE6R3E□□561MHB5D |
|             | 820         | 8×15                  | 0.056                       | 0.17  | 995                                                         | EKZE6R3E□□821MH15D |
|             | 1,000       | 10×12.5               | 0.053                       | 0.16  | 1,030                                                       | EKZE6R3E□□102MJC5S |
|             | 1,200       | 8×20                  | 0.041                       | 0.13  | 1,250                                                       | EKZE6R3E□□122MH20D |
|             | 1,200       | 10×16                 | 0.038                       | 0.12  | 1,430                                                       | EKZE6R3E□□122MJ16S |
|             | 1,500       | 10×20                 | 0.023                       | 0.069 | 1,820                                                       | EKZE6R3E□□152MJ20S |
|             | 2,200       | 10×25                 | 0.022                       | 0.066 | 2,150                                                       | EKZE6R3E□□222MJ25S |
|             | 3,300       | 12.5×20               | 0.021                       | 0.053 | 2,360                                                       | EKZE6R3E□□332MK20S |
|             | 3,900       | 12.5×25               | 0.018                       | 0.045 | 2,770                                                       | EKZE6R3E□□392MK25S |
|             | 4,700       | 12.5×30               | 0.016                       | 0.041 | 3,290                                                       | EKZE6R3E□□472MK30S |
|             | 5,600       | 12.5×35               | 0.015                       | 0.039 | 3,400                                                       | EKZE6R3E□□562MK35S |
|             | 5,600       | 16×20                 | 0.018                       | 0.045 | 3,140                                                       | EKZE6R3E□□562ML20S |
|             | 6,800       | 16×25                 | 0.016                       | 0.043 | 3,460                                                       | EKZE6R3E□□682ML25S |
| 10          | 56          | 5×7                   | 0.44                        | 1.4   | 210                                                         | EKZE100E□□560ME07D |
|             | 100         | 5×11                  | 0.30                        | 1.0   | 250                                                         | EKZE100E□□101ME11D |
|             | 120         | 6.3×7                 | 0.23                        | 0.69  | 300                                                         | EKZE100E□□121MF07D |
|             | 180         | 8×7                   | 0.15                        | 0.45  | 380                                                         | EKZE100E□□181MH07D |
|             | 220         | 6.3×11                | 0.13                        | 0.41  | 405                                                         | EKZE100E□□221MF11D |
|             | 470         | 8×11.5                | 0.072                       | 0.22  | 760                                                         | EKZE100E□□471MHB5D |
|             | 680         | 8×15                  | 0.056                       | 0.17  | 995                                                         | EKZE100E□□681MH15D |
|             | 680         | 10×12.5               | 0.053                       | 0.16  | 1,030                                                       | EKZE100E□□681MJC5S |
|             | 1,000       | 8×20                  | 0.041                       | 0.13  | 1,250                                                       | EKZE100E□□102MH20D |
|             | 1,000       | 10×16                 | 0.038                       | 0.12  | 1,430                                                       | EKZE100E□□102MJ16S |
|             | 1,200       | 10×20                 | 0.023                       | 0.069 | 1,820                                                       | EKZE100E□□122MJ20S |
|             | 1,500       | 10×25                 | 0.022                       | 0.066 | 2,150                                                       | EKZE100E□□152MJ25S |
|             | 2,200       | 12.5×20               | 0.021                       | 0.053 | 2,360                                                       | EKZE100E□□222MK20S |
|             | 3,300       | 12.5×25               | 0.018                       | 0.045 | 2,770                                                       | EKZE100E□□332MK25S |
|             | 3,900       | 12.5×30               | 0.016                       | 0.041 | 3,290                                                       | EKZE100E□□392MK30S |
|             | 3,900       | 16×20                 | 0.018                       | 0.045 | 3,140                                                       | EKZE100E□□392ML20S |
|             | 4,700       | 12.5×35               | 0.015                       | 0.039 | 3,400                                                       | EKZE100E□□472MK35S |
|             | 5,600       | 16×25                 | 0.016                       | 0.043 | 3,460                                                       | EKZE100E□□562ML25S |
| 16          | 33          | 5×7                   | 0.45                        | 1.4   | 210                                                         | EKZE160E□□330ME07D |
|             | 56          | 5×11                  | 0.30                        | 1.0   | 250                                                         | EKZE160E□□560ME11D |
|             | 68          | 6.3×7                 | 0.24                        | 0.72  | 300                                                         | EKZE160E□□680MF07D |
|             | 120         | 6.3×11                | 0.13                        | 0.41  | 405                                                         | EKZE160E□□121MF11D |
|             | 120         | 8×7                   | 0.15                        | 0.45  | 380                                                         | EKZE160E□□121MH07D |
|             | 330         | 8×11.5                | 0.072                       | 0.22  | 760                                                         | EKZE160E□□331MHB5D |
|             | 470         | 8×15                  | 0.056                       | 0.17  | 995                                                         | EKZE160E□□471MH15D |
|             | 470         | 10×12.5               | 0.053                       | 0.16  | 1,030                                                       | EKZE160E□□471MJC5S |
|             | 680         | 8×20                  | 0.041                       | 0.13  | 1,250                                                       | EKZE160E□□681MH20D |
|             | 680         | 10×16                 | 0.038                       | 0.12  | 1,430                                                       | EKZE160E□□681MJ16S |
|             | 1,000       | 10×20                 | 0.023                       | 0.069 | 1,820                                                       | EKZE160E□□102MJ20S |
|             | 1,200       | 10×25                 | 0.022                       | 0.066 | 2,150                                                       | EKZE160E□□122MJ25S |
|             | 1,500       | 12.5×20               | 0.021                       | 0.053 | 2,360                                                       | EKZE160E□□152MK20S |
|             | 2,200       | 12.5×25               | 0.018                       | 0.045 | 2,770                                                       | EKZE160E□□222MK25S |
|             | 2,700       | 12.5×30               | 0.016                       | 0.041 | 3,290                                                       | EKZE160E□□272MK30S |
|             | 2,700       | 16×20                 | 0.018                       | 0.045 | 3,140                                                       | EKZE160E□□272ML20S |
|             | 3,300       | 12.5×35               | 0.015                       | 0.039 | 3,400                                                       | EKZE160E□□332MK35S |
|             | 3,900       | 16×25                 | 0.016                       | 0.043 | 3,460                                                       | EKZE160E□□392ML25S |
| 25          | 27          | 5×7                   | 0.46                        | 1.4   | 210                                                         | EKZE250E□□270ME07D |
|             | 47          | 5×11                  | 0.30                        | 1.0   | 250                                                         | EKZE250E□□470ME11D |
|             | 56          | 6.3×7                 | 0.24                        | 0.72  | 300                                                         | EKZE250E□□560MF07D |
|             | 100         | 6.3×11                | 0.13                        | 0.41  | 405                                                         | EKZE250E□□101MF11D |
|             | 100         | 8×7                   | 0.15                        | 0.45  | 380                                                         | EKZE250E□□101MH07D |
|             | 220         | 8×11.5                | 0.072                       | 0.22  | 760                                                         | EKZE250E□□221MHB5D |
|             | 330         | 8×15                  | 0.056                       | 0.17  | 995                                                         | EKZE250E□□331MH15D |
|             | 330         | 10×12.5               | 0.053                       | 0.16  | 1,030                                                       | EKZE250E□□331MJC5S |
|             | 470         | 8×20                  | 0.041                       | 0.13  | 1,250                                                       | EKZE250E□□471MH20D |
|             | 470         | 10×16                 | 0.038                       | 0.12  | 1,430                                                       | EKZE250E□□471MJ16S |
|             | 680         | 10×20                 | 0.023                       | 0.069 | 1,820                                                       | EKZE250E□□681MJ20S |
|             | 680         | 10×20                 | 0.023                       | 0.069 | 1,820                                                       | EKZE250E□□681MJ20S |
| 25          | 820         | 10×25                 | 0.022                       | 0.066 | 2,150                                                       | EKZE250E□□821MJ25S |
|             | 1,000       | 12.5×20               | 0.021                       | 0.053 | 2,360                                                       | EKZE250E□□102MK20S |
|             | 1,500       | 12.5×25               | 0.018                       | 0.045 | 2,770                                                       | EKZE250E□□152MK25S |
|             | 1,800       | 12.5×30               | 0.016                       | 0.041 | 3,290                                                       | EKZE250E□□182MK30S |
|             | 1,800       | 16×20                 | 0.018                       | 0.045 | 3,140                                                       | EKZE250E□□182ML20S |
|             | 2,200       | 12.5×35               | 0.015                       | 0.039 | 3,400                                                       | EKZE250E□□222MK35S |
|             | 2,700       | 16×25                 | 0.016                       | 0.043 | 3,460                                                       | EKZE250E□□272ML25S |
|             | 18          | 5×7                   | 0.47                        | 1.5   | 210                                                         | EKZE350E□□180ME07D |
|             | 33          | 5×11                  | 0.30                        | 1.0   | 250                                                         | EKZE350E□□330ME11D |
|             | 39          | 6.3×7                 | 0.25                        | 0.75  | 300                                                         | EKZE350E□□390MF07D |
|             | 56          | 6.3×11                | 0.13                        | 0.41  | 405                                                         | EKZE350E□□560MF11D |
|             | 56          | 8×7                   | 0.16                        | 0.48  | 380                                                         | EKZE350E□□560MH07D |
|             | 150         | 8×11.5                | 0.072                       | 0.22  | 760                                                         | EKZE350E□□151MHB5D |
|             | 220         | 8×15                  | 0.056                       | 0.17  | 995                                                         | EKZE350E□□221MH15D |
|             | 220         | 10×12.5               | 0.053                       | 0.16  | 1,030                                                       | EKZE350E□□221MJC5S |
|             | 270         | 8×20                  | 0.041                       | 0.13  | 1,250                                                       | EKZE350E□□271MH20D |
|             | 330         | 10×16                 | 0.038                       | 0.12  | 1,430                                                       | EKZE350E□□331MJ16S |
|             | 470         | 10×20                 | 0.023                       | 0.069 | 1,820                                                       | EKZE350E□□471MJ20S |
| 35          | 560         | 10×25                 | 0.022                       | 0.066 | 2,150                                                       | EKZE350E□□561MJ25S |
|             | 680         | 12.5×20               | 0.021                       | 0.053 | 2,360                                                       | EKZE350E□□681MK20S |
|             | 1,000       | 12.5×25               | 0.018                       | 0.045 | 2,770                                                       | EKZE350E□□102MK25S |
|             | 1,200       | 12.5×30               | 0.016                       | 0.041 | 3,290                                                       | EKZE350E□□122MK30S |
|             | 1,200       | 16×20                 | 0.018                       | 0.045 | 3,140                                                       | EKZE350E□□122ML20S |
|             | 1,500       | 12.5×35               | 0.015                       | 0.039 | 3,400                                                       | EKZE350E□□152MK35S |
|             | 1,800       | 16×25                 | 0.016                       | 0.043 | 3,460                                                       | EKZE350E□□182ML25S |
|             | 10          | 5×7                   | 0.50                        | 1.5   | 210                                                         | EKZE500E□□100ME07D |
|             | 22          | 5×11                  | 0.34                        | 1.18  | 238                                                         | EKZE500E□□220ME11D |
|             | 22          | 6.3×7                 | 0.26                        | 0.78  | 300                                                         | EKZE500E□□220MF07D |
|             | 33          | 8×7                   | 0.17                        | 0.51  | 380                                                         | EKZE500E□□330MH07D |
|             | 56          | 6.3×11                | 0.14                        | 0.50  | 385                                                         | EKZE500E□□560MF11D |
|             | 100         | 8×11.5                | 0.074                       | 0.22  | 724                                                         | EKZE500E□□101MHB5D |
|             | 120         | 8×15                  | 0.061                       | 0.18  | 950                                                         | EKZE500E□□121MH15D |
|             | 150         | 10×12.5               | 0.061                       | 0.18  | 979                                                         | EKZE500E□□151MJC5S |
|             | 180         | 8×20                  | 0.046                       | 0.14  | 1,190                                                       | EKZE500E□□181MH20D |
|             | 220         | 10×16                 | 0.042                       | 0.12  | 1,370                                                       | EKZE500E□□221MJ16S |
|             | 270         | 10×20                 | 0.030                       | 0.090 | 1,580                                                       | EKZE500E□□271MJ20S |
| 50          | 330         | 10×25                 | 0.028                       | 0.085 | 1,870                                                       | EKZE500E□□331MJ25S |
|             | 470         | 12.5×20               | 0.027                       | 0.068 | 2,050                                                       | EKZE500E□□471MK20S |
|             | 560         | 12.5×25               | 0.023                       | 0.059 | 2,410                                                       | EKZE500E□□561MK25S |
|             | 680         | 12.5×30               | 0.021                       | 0.052 | 2,860                                                       | EKZE500E□□681MK30S |
|             | 820         | 12.5×35               | 0.019                       | 0.051 | 2,960                                                       | EKZE500E□□821MK35S |
|             | 820         | 16×20                 | 0.023                       | 0.059 | 2,730                                                       | EKZE500E□□821ML20S |
|             | 1,000       | 16×25                 | 0.021                       | 0.056 | 3,010                                                       | EKZE500E□□102ML25S |
|             | 15          | 5×11                  | 0.88                        | 3.5   | 165                                                         | EKZE630E□□150ME11D |
|             | 33          | 6.3×11                | 0.35                        | 1.4   | 265                                                         | EKZE630E□□330MF11D |
|             | 56          | 8×11.5                | 0.22                        | 0.88  | 500                                                         | EKZE630E□□560MHB5D |
|             | 82          | 8×15                  | 0.16                        | 0.64  | 665                                                         | EKZE630E□□820MH15D |
|             | 82          | 10×12.5               | 0.11                        | 0.44  | 690                                                         | EKZE630E□□820MJC5S |
|             | 120         | 8×20                  | 0.12                        | 0.48  | 820                                                         | EKZE630E□□121MH20D |
|             | 120         | 10×16                 | 0.076                       | 0.31  | 950                                                         | EKZE630E□□121MJ16S |
|             | 180         | 10×20                 | 0.056                       | 0.23  | 1,150                                                       | EKZE630E□□181MJ20S |
|             | 180         | 12.5×16               | 0.072                       | 0.29  | 1,150                                                       | EKZE630E□□181MK16S |
|             | 220         | 10×25                 | 0.046                       | 0.19  | 1,350                                                       | EKZE630E□□221MJ25S |
|             | 270         | 12.5×20               | 0.041                       | 0.13  | 1,500                                                       | EKZE630E□□271MK20S |
| 63          | 390         | 12.5×25               | 0.031                       | 0.093 | 1,900                                                       | EKZE630E□□391MK25S |
|             | 470         | 12.5×30               | 0.028                       | 0.084 | 2,300                                                       | EKZE630E□□471MK30S |
|             | 470         | 16×20                 | 0.032                       | 0.096 | 2,000                                                       | EKZE630E□□471ML20S |
|             | 560         | 12.5×35               | 0.024                       | 0.072 | 2,500                                                       | EKZE630E□□561MK35S |
|             | 680         | 12.5×40               | 0.021                       | 0.063 | 2,800                                                       | EKZE630E□□681MK40S |
|             | 680         | 16×25                 | 0.025                       | 0.075 | 2,600                                                       | EKZE630E□□681ML25S |
|             | 680         | 18×20                 | 0.030                       | 0.090 | 2,500                                                       | EKZE630E□□681MM20S |
|             | 820         | 16×31.5               | 0.021                       | 0.063 | 2,850                                                       | EKZE630E□□821MLN3S |
|             | 820         | 18×25                 | 0.024                       | 0.072 | 2,800                                                       | EKZE630E□□821MK25S |
|             | 1,000       | 16×35.5               | 0.019                       | 0.057 | 2,900                                                       | EKZE630E□□102MLP1S |
|             | 1,200       | 16×40                 | 0.018                       | 0.054 | 3,400                                                       | EKZE630E□□122ML40S |
|             | 1,200       | 16×40                 | 0.018                       | 0.054 | 3,400                                                       | EKZE630E□□122ML40S |

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

◆STANDARD RATINGS

| WV<br>(Vdc) | Cap<br>(μF) | Case size<br>φD×L(mm) | Impedance<br>(Ωmax/100kHz) |       | Rated<br>ripple<br>current<br>(mA <sub>rms</sub> /105°C,<br>100kHz) | Part No.           |
|-------------|-------------|-----------------------|----------------------------|-------|---------------------------------------------------------------------|--------------------|
|             |             |                       | 20°C                       | -10°C |                                                                     |                    |
| 63          | 1,200       | 18×31.5               | 0.020                      | 0.060 | 3,300                                                               | EKZE630E□□122MMN3S |
|             | 1,500       | 18×35.5               | 0.018                      | 0.054 | 3,400                                                               | EKZE630E□□152MMP1S |
|             | 1,800       | 18×40                 | 0.017                      | 0.051 | 3,500                                                               | EKZE630E□□182MM40S |
| 80          | 68          | 10×12.5               | 0.17                       | 0.66  | 480                                                                 | EKZE800E□□680MJC5S |
|             | 100         | 10×16                 | 0.11                       | 0.47  | 600                                                                 | EKZE800E□□101MJ16S |
|             | 120         | 10×20                 | 0.084                      | 0.34  | 800                                                                 | EKZE800E□□121MJ20S |
|             | 150         | 10×25                 | 0.069                      | 0.28  | 900                                                                 | EKZE800E□□151MJ25S |
|             | 150         | 12.5×16               | 0.11                       | 0.34  | 750                                                                 | EKZE800E□□151MK16S |
|             | 220         | 12.5×20               | 0.062                      | 0.18  | 1,100                                                               | EKZE800E□□221MK20S |
|             | 330         | 12.5×25               | 0.047                      | 0.14  | 1,250                                                               | EKZE800E□□331MK25S |
|             | 330         | 16×20                 | 0.048                      | 0.15  | 1,350                                                               | EKZE800E□□331ML20S |
|             | 390         | 12.5×30               | 0.042                      | 0.13  | 1,500                                                               | EKZE800E□□391MK30S |
|             | 470         | 12.5×35               | 0.036                      | 0.11  | 1,650                                                               | EKZE800E□□471MK35S |
|             | 470         | 16×25                 | 0.038                      | 0.12  | 1,700                                                               | EKZE800E□□471ML25S |
|             | 470         | 18×20                 | 0.045                      | 0.14  | 1,500                                                               | EKZE800E□□471MM20S |
|             | 560         | 12.5×40               | 0.032                      | 0.095 | 1,800                                                               | EKZE800E□□561MK40S |
|             | 680         | 16×31.5               | 0.032                      | 0.095 | 1,850                                                               | EKZE800E□□681MLN3S |
|             | 680         | 18×25                 | 0.036                      | 0.11  | 1,750                                                               | EKZE800E□□681MM25S |
|             | 820         | 16×35.5               | 0.029                      | 0.086 | 2,000                                                               | EKZE800E□□821MLP1S |
|             | 820         | 18×31.5               | 0.030                      | 0.090 | 1,900                                                               | EKZE800E□□821MMN3S |
|             | 1,000       | 16×40                 | 0.027                      | 0.081 | 2,200                                                               | EKZE800E□□102ML40S |
|             | 1,000       | 18×35.5               | 0.027                      | 0.081 | 2,200                                                               | EKZE800E□□102MMP1S |
|             | 1,200       | 18×40                 | 0.026                      | 0.077 | 2,700                                                               | EKZE800E□□122MM40S |

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

| WV<br>(Vdc) | Cap<br>(μF) | Case size<br>φD×L(mm) | Impedance<br>(Ωmax/100kHz) |       | Rated<br>ripple<br>current<br>(mA <sub>rms</sub> /105°C,<br>100kHz) | Part No.           |
|-------------|-------------|-----------------------|----------------------------|-------|---------------------------------------------------------------------|--------------------|
|             |             |                       | 20°C                       | -10°C |                                                                     |                    |
| 100         | 6.8         | 5×11                  | 1.4                        | 5.6   | 125                                                                 | EKZE101E□□6R8ME11D |
|             | 15          | 6.3×11                | 0.57                       | 2.3   | 205                                                                 | EKZE101E□□150MF11D |
|             | 27          | 8×11.5                | 0.36                       | 1.4   | 355                                                                 | EKZE101E□□270MHB5D |
|             | 39          | 8×15                  | 0.25                       | 1.0   | 450                                                                 | EKZE101E□□390MH15D |
|             | 47          | 10×12.5               | 0.17                       | 0.66  | 480                                                                 | EKZE101E□□470MJC5S |
|             | 56          | 8×20                  | 0.19                       | 0.76  | 565                                                                 | EKZE101E□□560MH20D |
|             | 68          | 10×16                 | 0.11                       | 0.47  | 600                                                                 | EKZE101E□□680MJ16S |
|             | 82          | 10×20                 | 0.084                      | 0.34  | 800                                                                 | EKZE101E□□820MJ20S |
|             | 100         | 12.5×16               | 0.11                       | 0.34  | 750                                                                 | EKZE101E□□101MK16S |
|             | 120         | 10×25                 | 0.069                      | 0.28  | 900                                                                 | EKZE101E□□121MJ25S |
|             | 150         | 12.5×20               | 0.062                      | 0.18  | 1,100                                                               | EKZE101E□□151MK20S |
|             | 220         | 12.5×25               | 0.047                      | 0.14  | 1,250                                                               | EKZE101E□□221MK25S |
|             | 220         | 16×20                 | 0.048                      | 0.15  | 1,350                                                               | EKZE101E□□221ML20S |
|             | 270         | 12.5×30               | 0.042                      | 0.13  | 1,500                                                               | EKZE101E□□271MK30S |
|             | 330         | 12.5×35               | 0.036                      | 0.11  | 1,650                                                               | EKZE101E□□331MK35S |
|             | 330         | 16×25                 | 0.038                      | 0.12  | 1,700                                                               | EKZE101E□□331ML25S |
|             | 330         | 18×20                 | 0.045                      | 0.14  | 1,500                                                               | EKZE101E□□331MM20S |
|             | 390         | 12.5×40               | 0.032                      | 0.095 | 1,800                                                               | EKZE101E□□391MK40S |
|             | 470         | 16×31.5               | 0.032                      | 0.095 | 1,850                                                               | EKZE101E□□471MLN3S |
|             | 470         | 18×25                 | 0.036                      | 0.11  | 1,750                                                               | EKZE101E□□471MM25S |
|             | 560         | 16×35.5               | 0.029                      | 0.086 | 2,000                                                               | EKZE101E□□561MLP1S |
|             | 560         | 18×31.5               | 0.030                      | 0.090 | 1,900                                                               | EKZE101E□□561MMN3S |
|             | 680         | 16×40                 | 0.027                      | 0.081 | 2,200                                                               | EKZE101E□□681ML40S |
|             | 680         | 18×35.5               | 0.027                      | 0.081 | 2,200                                                               | EKZE101E□□681MMP1S |
|             | 820         | 18×40                 | 0.026                      | 0.077 | 2,700                                                               | EKZE101E□□821MM40S |

◆RATED RIPPLE CURRENT MULTIPLIERS

●Frequency Multipliers

7L

| Capacitance(μF) | Frequency (Hz) | 120  | 1k   | 10k  | 100k |
|-----------------|----------------|------|------|------|------|
| 10 to 33        |                | 0.42 | 0.70 | 0.90 | 1.00 |
| 39 to 220       |                | 0.50 | 0.73 | 0.92 | 1.00 |

11L to 40L

| Capacitance(μF) | Frequency (Hz) | 120  | 1k   | 10k  | 100k |
|-----------------|----------------|------|------|------|------|
| 6.8 to 180      |                | 0.40 | 0.75 | 0.90 | 1.00 |
| 220 to 560      |                | 0.50 | 0.85 | 0.94 | 1.00 |
| 680 to 1,800    |                | 0.60 | 0.87 | 0.95 | 1.00 |
| 2,200 to 3,900  |                | 0.75 | 0.90 | 0.95 | 1.00 |
| 4,700 to        |                | 0.85 | 0.95 | 0.98 | 1.00 |

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.