

## KY Series

- Newly innovative electrolyte is employed to minimize ESR
- Endurance with ripple current : 4,000 to 10,000 hours at 105°C
- Non solvent resistant type
- RoHS Compliant

KZH P142

Lower Z

KZE P144

Lower Z

KY

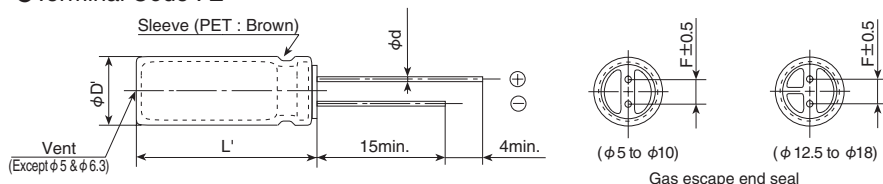


### SPECIFICATIONS

| Items                                                  | Characteristics                                                                                                                                                                                                                                                                       |                                      |                        |      |                       |      |                            |      |      |      |
|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------------------------|------|-----------------------|------|----------------------------|------|------|------|
| Category                                               | Temperature Range                                                                                                                                                                                                                                                                     |                                      |                        |      |                       |      |                            |      |      |      |
| Temperature Range                                      | -40 to +105°C                                                                                                                                                                                                                                                                         |                                      |                        |      |                       |      |                            |      |      |      |
| Rated Voltage Range                                    | 6.3 to 100V <sub>dc</sub>                                                                                                                                                                                                                                                             |                                      |                        |      |                       |      |                            |      |      |      |
| Capacitance Tolerance                                  | ±20% (M) (at 20°C, 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°C after 2 minutes)                                                                                                                         |                                      |                        |      |                       |      |                            |      |      |      |
| Dissipation Factor (tan δ)                             | Rated voltage (V <sub>dc</sub> )                                                                                                                                                                                                                                                      | 6.3V                                 | 10V                    | 16V  | 25V                   | 35V  | 50V                        | 63V  | 80V  | 100V |
|                                                        | tan δ (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°C, 120Hz)                                                                                                                                                                     |                                      |                        |      |                       |      |                            |      |      |      |
| Low Temperature Characteristics (Max. Impedance Ratio) | Rated voltage (V <sub>dc</sub> )                                                                                                                                                                                                                                                      | 6.3V                                 | 10V                    | 16V  | 25V                   | 35V  | 50V                        | 63V  | 80V  | 100V |
|                                                        | Z(-25°C)/Z(+20°C)                                                                                                                                                                                                                                                                     | 4                                    | 3                      | 2    | 2                     | 2    | 2                          | 2    | 2    | 2    |
|                                                        | Z(-40°C)/Z(+20°C)                                                                                                                                                                                                                                                                     | 8                                    | 6                      | 4    | 3                     | 3    | 3                          | 3    | 3    | 3    |
| 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 period of time at 105°C.                      |                                      |                        |      |                       |      |                            |      |      |      |
|                                                        | Time                                                                                                                                                                                                                                                                                  | 6.3 to 10V <sub>dc</sub>             | φ 5 & 6.3 : 4,000hours |      | φ 8 & 10 : 6,000hours |      | φ 12.5 to 18 : 8,000hours  |      |      |      |
|                                                        |                                                                                                                                                                                                                                                                                       | 16 to 100V <sub>dc</sub>             | φ 5 & 6.3 : 5,000hours |      | φ 8 & 10 : 7,000hours |      | φ 12.5 to 18 : 10,000hours |      |      |      |
|                                                        | 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°C after exposing them for 500 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                                                                                                                                                                                                                                                                    | ≤±25% of the initial value           |                        |      |                       |      |                            |      |      |      |
|                                                        | D.F. (tan δ)                                                                                                                                                                                                                                                                          | ≤200% of the initial specified value |                        |      |                       |      |                            |      |      |      |
|                                                        | Leakage current                                                                                                                                                                                                                                                                       | ≤The initial specified value         |                        |      |                       |      |                            |      |      |      |

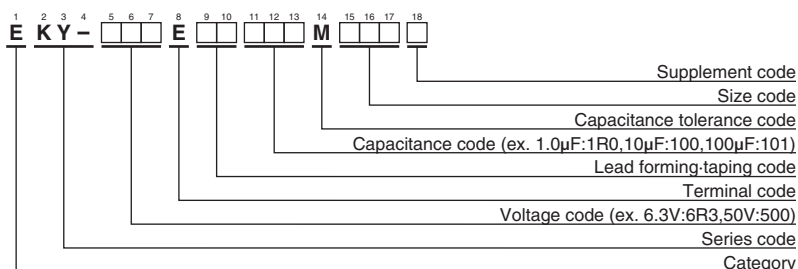
### DIMENSIONS [mm]

- Terminal Code : E



| φD  | 5          | 6.3 | 8   | 10  | 12.5 | 16  | 18  |
|-----|------------|-----|-----|-----|------|-----|-----|
| φd  | 0.5        | 0.5 | 0.6 | 0.6 | 0.6  | 0.8 | 0.8 |
| F   | 2.0        | 2.5 | 3.5 | 5.0 | 5.0  | 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) | Impedance<br>(Ω <sub>max</sub> /100kHz) |       | Rated<br>ripple<br>current<br>(mA <sub>rms</sub> /<br>105°C,<br>100kHz) | Part No.           |
|--------------------------|-------------|-----------------------|-----------------------------------------|-------|-------------------------------------------------------------------------|--------------------|
|                          |             |                       | 20°C                                    | -10°C |                                                                         |                    |
| 6.3                      | 150         | 5×11                  | 0.58                                    | 2.3   | 210                                                                     | EKY-6R3E□□151ME11D |
|                          | 330         | 6.3×11                | 0.22                                    | 0.87  | 340                                                                     | EKY-6R3E□□331MF11D |
|                          | 680         | 8×11.5                | 0.13                                    | 0.52  | 640                                                                     | EKY-6R3E□□681MHB5D |
|                          | 820         | 10×12.5               | 0.080                                   | 0.32  | 865                                                                     | EKY-6R3E□□821MJC5S |
|                          | 1,000       | 8×15                  | 0.087                                   | 0.35  | 840                                                                     | EKY-6R3E□□102MH15D |
|                          | 1,200       | 8×20                  | 0.069                                   | 0.27  | 1,050                                                                   | EKY-6R3E□□122MH20D |
|                          | 1,200       | 10×16                 | 0.060                                   | 0.24  | 1,210                                                                   | EKY-6R3E□□122MJ16S |
|                          | 1,500       | 10×20                 | 0.046                                   | 0.18  | 1,400                                                                   | EKY-6R3E□□152MJ20S |
|                          | 1,800       | 12.5×15               | 0.049                                   | 0.16  | 1,450                                                                   | EKY-6R3E□□182MK15S |
|                          | 2,200       | 10×25                 | 0.042                                   | 0.17  | 1,650                                                                   | EKY-6R3E□□222MJ25S |
|                          | 2,700       | 10×30                 | 0.031                                   | 0.12  | 1,910                                                                   | EKY-6R3E□□272MJ30S |
|                          | 2,700       | 16×15                 | 0.042                                   | 0.12  | 1,940                                                                   | EKY-6R3E□□272ML15S |
|                          | 3,300       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-6R3E□□332MK20S |
|                          | 3,900       | 12.5×25               | 0.027                                   | 0.089 | 2,230                                                                   | EKY-6R3E□□392MK25S |
|                          | 3,900       | 18×15                 | 0.043                                   | 0.11  | 2,210                                                                   | EKY-6R3E□□392MM15S |
|                          | 4,700       | 12.5×30               | 0.024                                   | 0.078 | 2,650                                                                   | EKY-6R3E□□472MK30S |
|                          | 5,600       | 12.5×35               | 0.020                                   | 0.065 | 2,880                                                                   | EKY-6R3E□□562MK35S |
|                          | 5,600       | 16×20                 | 0.027                                   | 0.078 | 2,530                                                                   | EKY-6R3E□□562ML20S |
|                          | 6,800       | 12.5×40               | 0.017                                   | 0.056 | 3,350                                                                   | EKY-6R3E□□682MK40S |
|                          | 6,800       | 16×25                 | 0.021                                   | 0.060 | 2,930                                                                   | EKY-6R3E□□682ML25S |
|                          | 6,800       | 18×20                 | 0.026                                   | 0.067 | 2,860                                                                   | EKY-6R3E□□682MM20S |
|                          | 8,200       | 16×31.5               | 0.017                                   | 0.050 | 3,450                                                                   | EKY-6R3E□□822MLN3S |
|                          | 10,000      | 16×35.5               | 0.015                                   | 0.044 | 3,610                                                                   | EKY-6R3E□□103MLP1S |
|                          | 10,000      | 18×25                 | 0.019                                   | 0.049 | 3,140                                                                   | EKY-6R3E□□103MM25S |
|                          | 12,000      | 16×40                 | 0.013                                   | 0.038 | 4,080                                                                   | EKY-6R3E□□123ML40S |
|                          | 12,000      | 18×31.5               | 0.015                                   | 0.040 | 4,170                                                                   | EKY-6R3E□□123MMN3S |
|                          | 15,000      | 18×35.5               | 0.014                                   | 0.038 | 4,220                                                                   | EKY-6R3E□□153MMP1S |
|                          | 18,000      | 18×40                 | 0.012                                   | 0.032 | 4,280                                                                   | EKY-6R3E□□183MM40S |
| 10                       | 100         | 5×11                  | 0.58                                    | 2.3   | 210                                                                     | EKY-100E□□101ME11D |
|                          | 220         | 6.3×11                | 0.22                                    | 0.87  | 340                                                                     | EKY-100E□□221MF11D |
|                          | 470         | 8×11.5                | 0.13                                    | 0.52  | 640                                                                     | EKY-100E□□471MHB5D |
|                          | 680         | 8×15                  | 0.087                                   | 0.35  | 840                                                                     | EKY-100E□□681MH15D |
|                          | 680         | 10×12.5               | 0.080                                   | 0.32  | 865                                                                     | EKY-100E□□681MJC5S |
|                          | 1,000       | 8×20                  | 0.069                                   | 0.27  | 1,050                                                                   | EKY-100E□□102MH20D |
|                          | 1,000       | 10×16                 | 0.060                                   | 0.24  | 1,210                                                                   | EKY-100E□□102MJ16S |
|                          | 1,200       | 10×20                 | 0.046                                   | 0.18  | 1,400                                                                   | EKY-100E□□122MJ20S |
|                          | 1,500       | 10×25                 | 0.042                                   | 0.17  | 1,650                                                                   | EKY-100E□□152MJ25S |
|                          | 1,500       | 12.5×15               | 0.049                                   | 0.16  | 1,450                                                                   | EKY-100E□□152MK15S |
|                          | 2,200       | 10×30                 | 0.031                                   | 0.12  | 1,910                                                                   | EKY-100E□□222MJ30S |
|                          | 2,200       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-100E□□222MK20S |
|                          | 2,200       | 16×15                 | 0.042                                   | 0.12  | 1,940                                                                   | EKY-100E□□222ML15S |
|                          | 2,700       | 18×15                 | 0.043                                   | 0.11  | 2,210                                                                   | EKY-100E□□272MM15S |
|                          | 3,300       | 12.5×25               | 0.027                                   | 0.089 | 2,230                                                                   | EKY-100E□□332MK25S |
|                          | 3,900       | 12.5×30               | 0.024                                   | 0.078 | 2,650                                                                   | EKY-100E□□392MK30S |
|                          | 3,900       | 16×20                 | 0.027                                   | 0.078 | 2,530                                                                   | EKY-100E□□392ML20S |
|                          | 4,700       | 12.5×35               | 0.020                                   | 0.065 | 2,880                                                                   | EKY-100E□□472MK35S |
|                          | 5,600       | 12.5×40               | 0.017                                   | 0.056 | 3,350                                                                   | EKY-100E□□562MK40S |
|                          | 5,600       | 16×25                 | 0.021                                   | 0.060 | 2,930                                                                   | EKY-100E□□562ML25S |
|                          | 5,600       | 18×20                 | 0.026                                   | 0.067 | 2,860                                                                   | EKY-100E□□562MM20S |
|                          | 6,800       | 16×31.5               | 0.017                                   | 0.050 | 3,450                                                                   | EKY-100E□□682MLN3S |
|                          | 6,800       | 18×25                 | 0.019                                   | 0.049 | 3,140                                                                   | EKY-100E□□682MM25S |
|                          | 8,200       | 16×35.5               | 0.015                                   | 0.044 | 3,610                                                                   | EKY-100E□□822MLP1S |
|                          | 8,200       | 18×31.5               | 0.015                                   | 0.040 | 4,170                                                                   | EKY-100E□□822MMN3S |
|                          | 10,000      | 16×40                 | 0.013                                   | 0.038 | 4,080                                                                   | EKY-100E□□103ML40S |
|                          | 10,000      | 18×35.5               | 0.014                                   | 0.038 | 4,220                                                                   | EKY-100E□□103MMP1S |
|                          | 12,000      | 18×40                 | 0.012                                   | 0.032 | 4,280                                                                   | EKY-100E□□123MM40S |
| 16                       | 56          | 5×11                  | 0.58                                    | 2.3   | 210                                                                     | EKY-160E□□560ME11D |
|                          | 120         | 6.3×11                | 0.22                                    | 0.87  | 340                                                                     | EKY-160E□□121MF11D |
|                          | 330         | 8×11.5                | 0.13                                    | 0.52  | 640                                                                     | EKY-160E□□331MHB5D |
|                          | 470         | 8×15                  | 0.087                                   | 0.35  | 840                                                                     | EKY-160E□□471MH15D |
|                          | 470         | 10×12.5               | 0.080                                   | 0.32  | 865                                                                     | EKY-160E□□471MJC5S |
|                          | 680         | 8×20                  | 0.069                                   | 0.27  | 1,050                                                                   | EKY-160E□□681MH20D |
|                          | 680         | 10×16                 | 0.060                                   | 0.24  | 1,210                                                                   | EKY-160E□□681MJ16S |
|                          | 1,000       | 10×20                 | 0.046                                   | 0.18  | 1,400                                                                   | EKY-160E□□102MJ20S |
|                          | 1,000       | 12.5×15               | 0.049                                   | 0.16  | 1,450                                                                   | EKY-160E□□102MK15S |
|                          | 1,200       | 10×25                 | 0.042                                   | 0.17  | 1,650                                                                   | EKY-160E□□122MJ25S |
|                          | 1,500       | 10×30                 | 0.031                                   | 0.12  | 1,910                                                                   | EKY-160E□□152MJ30S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
| 16                       | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
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|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
| 16                       | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
| 16                       | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
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|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
| 16                       | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
| 16                       | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
| 16                       | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,900                                                                   | EKY-160E□□152ML20S |
|                          | 1,500       | 12.5×20               | 0.035                                   | 0.12  | 1,90                                                                    |                    |

## ◆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 rms/<br>105°C<br>100kHz) | Part No.           |
|-------------|-------------|-----------------------|----------------------------|-------|------------------------------------------------------------|--------------------|
|             |             |                       | 20°C                       | -10°C |                                                            |                    |
| 35          | 2,200       | 18×25                 | 0.019                      | 0.049 | 3,140                                                      | EKY-350E□□222MM25S |
|             | 2,700       | 16×35.5               | 0.015                      | 0.044 | 3,610                                                      | EKY-350E□□272MLP1S |
|             | 2,700       | 18×31.5               | 0.015                      | 0.040 | 4,170                                                      | EKY-350E□□272MMN3S |
|             | 3,300       | 16×40                 | 0.013                      | 0.038 | 4,080                                                      | EKY-350E□□332ML40S |
|             | 3,300       | 18×35.5               | 0.014                      | 0.038 | 4,220                                                      | EKY-350E□□332MMP1S |
|             | 3,900       | 18×40                 | 0.012                      | 0.032 | 4,280                                                      | EKY-350E□□392MM40S |
| 50          | 1.0         | 5×11                  | 4.0                        | 16.0  | 30                                                         | EKY-500E□□1R0ME11D |
|             | 2.2         | 5×11                  | 2.5                        | 10.0  | 43                                                         | EKY-500E□□2R2ME11D |
|             | 3.3         | 5×11                  | 2.2                        | 8.8   | 53                                                         | EKY-500E□□3R3ME11D |
|             | 4.7         | 5×11                  | 1.9                        | 7.6   | 88                                                         | EKY-500E□□4R7ME11D |
|             | 10          | 5×11                  | 1.5                        | 6.0   | 100                                                        | EKY-500E□□100ME11D |
|             | 22          | 5×11                  | 0.70                       | 2.8   | 180                                                        | EKY-500E□□220ME11D |
|             | 56          | 6.3×11                | 0.30                       | 1.2   | 295                                                        | EKY-500E□□560MF11D |
|             | 100         | 8×11.5                | 0.17                       | 0.68  | 555                                                        | EKY-500E□□101MHB5D |
|             | 120         | 8×15                  | 0.12                       | 0.48  | 730                                                        | EKY-500E□□121MH15D |
|             | 150         | 10×12.5               | 0.12                       | 0.48  | 760                                                        | EKY-500E□□151MJC5S |
|             | 180         | 8×20                  | 0.091                      | 0.36  | 910                                                        | EKY-500E□□181MH20D |
|             | 220         | 10×16                 | 0.084                      | 0.34  | 1,050                                                      | EKY-500E□□221MJ16S |
|             | 270         | 10×20                 | 0.060                      | 0.24  | 1,220                                                      | EKY-500E□□271MJ20S |
|             | 270         | 12.5×15               | 0.061                      | 0.20  | 1,260                                                      | EKY-500E□□271MK15S |
|             | 330         | 10×25                 | 0.055                      | 0.22  | 1,440                                                      | EKY-500E□□331MJ25S |
|             | 470         | 10×30                 | 0.043                      | 0.17  | 1,690                                                      | EKY-500E□□471MJ30S |
|             | 470         | 12.5×20               | 0.045                      | 0.15  | 1,660                                                      | EKY-500E□□471MK20S |
|             | 470         | 16×15                 | 0.055                      | 0.17  | 1,690                                                      | EKY-500E□□471ML15S |
|             | 560         | 12.5×25               | 0.034                      | 0.11  | 1,950                                                      | EKY-500E□□561MK25S |
|             | 560         | 18×15                 | 0.054                      | 0.15  | 1,930                                                      | EKY-500E□□561MM15S |
|             | 680         | 12.5×30               | 0.030                      | 0.10  | 2,310                                                      | EKY-500E□□681MK30S |
|             | 820         | 12.5×35               | 0.025                      | 0.083 | 2,510                                                      | EKY-500E□□821MK35S |
|             | 820         | 16×20                 | 0.034                      | 0.10  | 2,210                                                      | EKY-500E□□821ML20S |
|             | 1,000       | 12.5×40               | 0.021                      | 0.069 | 2,920                                                      | EKY-500E□□102MK40S |
|             | 1,000       | 16×25                 | 0.025                      | 0.075 | 2,555                                                      | EKY-500E□□102ML25S |
|             | 1,000       | 18×20                 | 0.036                      | 0.097 | 2,490                                                      | EKY-500E□□102MM20S |
|             | 1,200       | 16×31.5               | 0.022                      | 0.066 | 3,010                                                      | EKY-500E□□122MLN3S |
|             | 1,200       | 18×25                 | 0.026                      | 0.070 | 2,740                                                      | EKY-500E□□122MM25S |
|             | 1,500       | 16×35.5               | 0.019                      | 0.057 | 3,150                                                      | EKY-500E□□152MLP1S |
|             | 1,800       | 16×40                 | 0.016                      | 0.048 | 3,710                                                      | EKY-500E□□182ML40S |
|             | 1,800       | 18×31.5               | 0.021                      | 0.057 | 3,635                                                      | EKY-500E□□182MMN3S |
|             | 2,200       | 18×35.5               | 0.017                      | 0.046 | 3,680                                                      | EKY-500E□□222MMP1S |
|             | 2,700       | 18×40                 | 0.014                      | 0.038 | 3,800                                                      | EKY-500E□□272MM40S |
| 63          | 15          | 5×11                  | 0.88                       | 3.5   | 165                                                        | EKY-630E□□150ME11D |
|             | 33          | 6.3×11                | 0.35                       | 1.4   | 265                                                        | EKY-630E□□330MF11D |
|             | 56          | 8×11.5                | 0.22                       | 0.88  | 500                                                        | EKY-630E□□560MHB5D |
|             | 82          | 8×15                  | 0.16                       | 0.64  | 665                                                        | EKY-630E□□820MH15D |
|             | 82          | 10×12.5               | 0.11                       | 0.44  | 690                                                        | EKY-630E□□820MJC5S |
|             | 120         | 8×20                  | 0.12                       | 0.48  | 820                                                        | EKY-630E□□121MH20D |
|             | 120         | 10×16                 | 0.076                      | 0.31  | 950                                                        | EKY-630E□□121MJ16S |
|             | 180         | 10×20                 | 0.056                      | 0.23  | 1,150                                                      | EKY-630E□□181MJ20S |
|             | 180         | 12.5×16               | 0.072                      | 0.29  | 1,150                                                      | EKY-630E□□181MK16S |
|             | 220         | 10×25                 | 0.046                      | 0.19  | 1,350                                                      | EKY-630E□□221MJ25S |
|             | 270         | 12.5×20               | 0.041                      | 0.13  | 1,500                                                      | EKY-630E□□271MK20S |
|             | 390         | 12.5×25               | 0.031                      | 0.093 | 1,900                                                      | EKY-630E□□391MK25S |
|             | 470         | 12.5×30               | 0.028                      | 0.084 | 2,300                                                      | EKY-630E□□471MK30S |
|             | 470         | 16×20                 | 0.032                      | 0.096 | 2,000                                                      | EKY-630E□□471ML20S |
|             | 560         | 12.5×35               | 0.024                      | 0.072 | 2,500                                                      | EKY-630E□□561MK35S |
|             | 680         | 12.5×40               | 0.021                      | 0.063 | 2,800                                                      | EKY-630E□□681MK40S |
| 63          | 680         | 16×25                 | 0.021                      | 0.063 | 2,800                                                      | EKY-630E□□681ML25S |
|             | 820         | 18×25                 | 0.024                      | 0.072 | 2,800                                                      | EKY-630E□□821MM25S |
|             | 1,000       | 16×35.5               | 0.019                      | 0.057 | 2,900                                                      | EKY-630E□□102MLP1S |
|             | 1,200       | 16×40                 | 0.018                      | 0.054 | 3,400                                                      | EKY-630E□□122ML40S |
|             | 1,200       | 18×31.5               | 0.020                      | 0.060 | 3,300                                                      | EKY-630E□□122MMN3S |
|             | 1,500       | 18×35.5               | 0.018                      | 0.054 | 3,400                                                      | EKY-630E□□152MMP1S |
|             | 1,800       | 18×40                 | 0.017                      | 0.051 | 3,500                                                      | EKY-630E□□182MM40S |
|             | 68          | 10×12.5               | 0.17                       | 0.66  | 480                                                        | EKY-800E□□680MJC5S |
|             | 100         | 10×16                 | 0.11                       | 0.47  | 600                                                        | EKY-800E□□101MJ16S |
|             | 120         | 10×20                 | 0.084                      | 0.34  | 800                                                        | EKY-800E□□121MJ20S |
|             | 150         | 10×25                 | 0.069                      | 0.28  | 900                                                        | EKY-800E□□151MJ25S |
|             | 150         | 12.5×16               | 0.11                       | 0.34  | 750                                                        | EKY-800E□□151MK16S |
| 80          | 220         | 12.5×20               | 0.062                      | 0.18  | 1,100                                                      | EKY-800E□□221MK20S |
|             | 330         | 12.5×25               | 0.047                      | 0.14  | 1,250                                                      | EKY-800E□□331MK25S |
|             | 330         | 16×20                 | 0.048                      | 0.15  | 1,350                                                      | EKY-800E□□331ML20S |
|             | 390         | 12.5×30               | 0.042                      | 0.13  | 1,500                                                      | EKY-800E□□391MK30S |
|             | 470         | 12.5×35               | 0.036                      | 0.11  | 1,650                                                      | EKY-800E□□471MK35S |
|             | 470         | 16×25                 | 0.038                      | 0.12  | 1,700                                                      | EKY-800E□□471ML25S |
|             | 470         | 18×20                 | 0.045                      | 0.14  | 1,500                                                      | EKY-800E□□471MM20S |
|             | 560         | 12.5×40               | 0.032                      | 0.095 | 1,800                                                      | EKY-800E□□561MK40S |
|             | 680         | 16×31.5               | 0.032                      | 0.095 | 1,850                                                      | EKY-800E□□681MKN3S |
|             | 680         | 18×25                 | 0.036                      | 0.11  | 1,750                                                      | EKY-800E□□681MM25S |
|             | 820         | 16×35.5               | 0.029                      | 0.086 | 2,000                                                      | EKY-800E□□821MLP1S |
|             | 820         | 18×31.5               | 0.030                      | 0.090 | 1,900                                                      | EKY-800E□□821MMN3S |
| 100         | 1,000       | 16×40                 | 0.027                      | 0.081 | 2,200                                                      | EKY-800E□□102ML40S |
|             | 1,000       | 18×35.5               | 0.027                      | 0.081 | 2,200                                                      | EKY-800E□□102MMP1S |
|             | 1,200       | 18×40                 | 0.026                      | 0.077 | 2,700                                                      | EKY-800E□□122MM40S |
|             | 6.8         | 5×11                  | 1.4                        | 5.6   | 125                                                        | EKY-101E□□6R8ME11D |
|             | 15          | 6.3×11                | 0.57                       | 2.3   | 205                                                        | EKY-101E□□150MF11D |
|             | 27          | 8×11.5                | 0.36                       | 1.4   | 355                                                        | EKY-101E□□270MHB5D |
|             | 39          | 8×15                  | 0.25                       | 1.0   | 450                                                        | EKY-101E□□390MH15D |
|             | 47          | 10×12.5               | 0.17                       | 0.66  | 480                                                        | EKY-101E□□470MJC5S |
|             | 56          | 8×20                  | 0.19                       | 0.76  | 565                                                        | EKY-101E□□560MH20D |
|             | 68          | 10×16                 | 0.11                       | 0.47  | 600                                                        | EKY-101E□□680MJ16S |
|             | 82          | 10×20                 | 0.084                      | 0.34  | 800                                                        | EKY-101E□□820MJ20S |
|             | 100         | 12.5×16               | 0.11                       | 0.34  | 750                                                        | EKY-101E□□101MK16S |
| 100         | 120         | 10×25                 | 0.069                      | 0.28  | 900                                                        | EKY-101E□□121MJ25S |
|             | 150         | 12.5×20               | 0.062                      | 0.18  | 1,100                                                      | EKY-101E□□151MK20S |
|             | 220         | 12.5×25               | 0.047                      | 0.14  | 1,250                                                      | EKY-101E□□221MK25S |
|             | 220         | 16×20                 | 0.048                      | 0.15  | 1,350                                                      | EKY-101E□□221ML20S |
|             | 270         | 12.5×30               | 0.042                      | 0.13  | 1,500                                                      | EKY-101E□□271MK30S |
|             | 330         | 12.5×35               | 0.036                      | 0.11  | 1,650                                                      | EKY-101E□□331MK35S |
|             | 330         | 16×25                 | 0.038                      | 0.12  | 1,700                                                      | EKY-101E□□331ML25S |
|             | 330         | 18×20                 | 0.045                      | 0.14  | 1,500                                                      | EKY-101E□□331MM20S |
|             | 390         | 12.5×40               | 0.032                      | 0.095 | 1,800                                                      | EKY-101E□□391MK40S |
|             | 470         | 16×31.5               | 0.032                      | 0.095 | 1,850                                                      | EKY-101E□□471MLN3S |
|             | 470         | 18×25                 | 0.036                      | 0.11  | 1,750                                                      | EKY-101E□□471MM25S |
|             | 560         | 16×35.5               | 0.029                      | 0.086 | 2,000                                                      | EKY-101E□□561MLP1S |
| 100         | 560         | 18×31.5               | 0.030                      | 0.090 | 1,900                                                      | EKY-101E□□561MMN3S |
|             | 680         | 16×40                 | 0.027                      | 0.081 | 2,200                                                      | EKY-101E□□681ML40S |
|             | 680         | 18×35.5               | 0.027                      | 0.081 | 2,200                                                      | EKY-101E□□681MMP1S |
|             | 820         | 18×40                 | 0.026                      | 0.077 | 2,700                                                      | EKY-101E□□821MM40S |

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

## ◆RATED RIPPLE CURRENT MULTIPLIERS

## ●Frequency Multipliers

| Capacitance (μF) | Frequency (Hz) | 120  | 1k   | 10k  | 100k |
|------------------|----------------|------|------|------|------|
| 1.0 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.