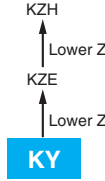


KY Series

- 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
- RoHS2 Compliant

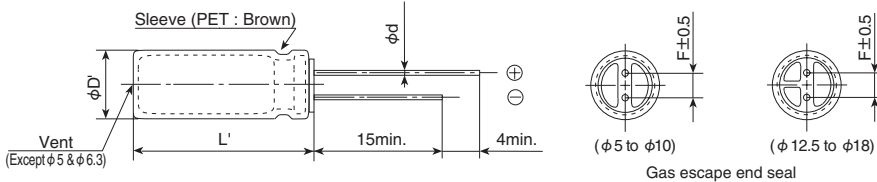


◆ SPECIFICATIONS

| Items | Characteristics | | | | | | | | | | |
|--|---|---------------------------------------|------------------------|------|-----------------------|------|----------------------------|------|------|------|--|
| Category | -40 to +105°C | | | | | | | | | | |
| Temperature Range | -40 to +105°C | | | | | | | | | | |
| Rated Voltage Range | 6.3 to 100V _{dc} | | | | | | | | | | |
| Capacitance Tolerance | ±20% (M) (at 20°C, 120Hz) | | | | | | | | | | |
| Leakage Current | I=0.01CV or 3μA, whichever is greater. 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 _{dc}) | 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 _{dc}) | 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 | |
| (at 120Hz) | | | | | | | | | | | |
| Endurance | The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for the specified period of time at 105°C. | | | | | | | | | | |
| | Time | 6.3 to 10V _{dc} | φ 5 & 6.3 : 4,000hours | | φ 8 & 10 : 6,000hours | | φ 12.5 to 18 : 8,000hours | | | | |
| | | 16 to 100V _{dc} | 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 | | | | | | | | | |

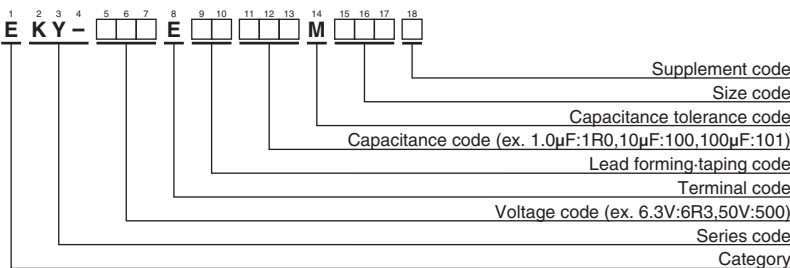
◆ DIMENSIONS [mm]

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

□ □ : 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.