

# KYB Series

- Low impedance, high ripple and long life from KYA series
- Newly innovative electrolyte is employed to minimize impedance
- Endurance with ripple current : 4,000 to 10,000 hours at 105°C
- Non solvent resistant type
- RoHS Compliant

**KYB**  
↑ Lower Z  
KYA P163



## ◆ SPECIFICATIONS

| Items  | Characteristics   |  |      |      |      |      |   |      |      |      |  |
|--|---|--|------|------|------|------|---|------|------|------|--|
| Category 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.                      |  |      |      |      |      |   |      |      |      |  |
|  | Rated Voltage(V <sub>dc</sub> )   | 6.3 to 10V <sub>dc</sub>                                     |      |      |      |      | 16 to 100V <sub>dc</sub>                                      |      |      |      |  |
|  | Time  | φ 5: 4,000hours φ 6.3 & 8: 6,000hours φ 10 to 18: 8,000hours |      |      |      |      | φ 5: 5,000hours φ 6.3 & 8: 7,000hours φ 10 to 18: 10,000hours |      |      |      |  |
|  | Capacitance change  | ≤ ±30% of the initial value                                  |      |      |      |      | ≤ ±25% of the initial value                                   |      |      |      |  |
|  | D.F. (tan δ)  | ≤ 200% of the initial specified value                        |      |      |      |      | ≤ 200% of the initial specified value                         |      |      |      |  |
|  | Leakage current   | ≤ The initial specified value                                |      |      |      |      | ≤ 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 max./100kHz) |       | Rated<br>ripple<br>current<br>(mA <sub>rms</sub> /100kHz) | Part No.           | WV<br>(V <sub>dc</sub> ) | Cap<br>(μF) | Case size<br>φD×L(mm) | Impedance<br>(Ω max./100kHz) |                    | Rated<br>ripple<br>current<br>(mA <sub>rms</sub> /100kHz) | Part No.           |
|--------------------------|-------------|-----------------------|------------------------------|-------|---|--------------------|--------------------------|-------------|-----------------------|------------------------------|--------------------|---|--------------------|
|                          |             |                       | 20°C                         | -10°C |   |                    |                          |             |                       | 20°C                         | -10°C              |   |                    |
| 50                       | 180         | 8×20                  | 0.075                        | 0.30  | 980   | EKYB500E□□181MH20D | 80                       | 56          | 8×15                  | 0.14                         | 0.56               | 585   | EKYB800E□□560MH15D |
|                          | 220         | 10×16                 | 0.069                        | 0.28  | 1,100   | EKYB500E□□221MJ16S |                          | 82          | 8×20                  | 0.11                         | 0.44               | 735   | EKYB800E□□820MH20D |
|                          | 270         | 10×20                 | 0.055                        | 0.22  | 1,300   | EKYB500E□□271MJ20S |                          | 82          | 10×12.5               | 0.14                         | 0.56               | 624   | EKYB800E□□820MJC5S |
|                          | 390         | 10×25                 | 0.043                        | 0.18  | 1,600   | EKYB500E□□391MJ25S |                          | 120         | 10×16                 | 0.10                         | 0.40               | 780   | EKYB800E□□121MJ16S |
|                          | 470         | 10×30                 | 0.038                        | 0.16  | 1,820   | EKYB500E□□471MJ30S |                          | 180         | 10×20                 | 0.075                        | 0.30               | 1,040   | EKYB800E□□181MJ20S |
|                          | 470         | 12.5×20               | 0.034                        | 0.14  | 1,820   | EKYB500E□□471MK20S |                          | 220         | 10×25                 | 0.060                        | 0.24               | 1,170   | EKYB800E□□221MJ25S |
|                          | 680         | 12.5×25               | 0.030                        | 0.12  | 2,100   | EKYB500E□□681MK25S |                          | 270         | 10×30                 | 0.053                        | 0.22               | 1,350   | EKYB800E□□271MJ30S |
|                          | 820         | 12.5×30               | 0.025                        | 0.10  | 2,450   | EKYB500E□□821MK30S |                          | 270         | 12.5×20               | 0.048                        | 0.20               | 1,430   | EKYB800E□□271MK20S |
|                          | 820         | 16×20                 | 0.028                        | 0.12  | 2,350   | EKYB500E□□821ML20S |                          | 390         | 12.5×25               | 0.039                        | 0.16               | 1,620   | EKYB800E□□391MK25S |
|                          | 1,000       | 12.5×35               | 0.021                        | 0.084 | 2,800   | EKYB500E□□102MK35S |                          | 470         | 12.5×30               | 0.033                        | 0.14               | 1,950   | EKYB800E□□471MK30S |
|                          | 1,000       | 18×20                 | 0.025                        | 0.10  | 2,600   | EKYB500E□□102MM20S |                          | 470         | 16×20                 | 0.036                        | 0.15               | 1,750   | EKYB800E□□471ML20S |
|                          | 1,200       | 12.5×40               | 0.019                        | 0.076 | 3,100   | EKYB500E□□122MK40S |                          | 560         | 12.5×35               | 0.026                        | 0.11               | 2,250   | EKYB800E□□561MM20S |
|                          | 1,200       | 16×25                 | 0.024                        | 0.096 | 2,750   | EKYB500E□□122ML25S |                          | 560         | 18×20                 | 0.032                        | 0.13               | 2,100   | EKYB800E□□561MM20S |
|                          | 1,500       | 16×31.5               | 0.019                        | 0.076 | 3,150   | EKYB500E□□152MLN3S |                          | 680         | 12.5×40               | 0.024                        | 0.096              | 2,450   | EKYB800E□□681MK40S |
|                          | 1,500       | 18×25                 | 0.021                        | 0.084 | 2,890   | EKYB500E□□152MM25S |                          | 680         | 16×25                 | 0.028                        | 0.12               | 2,250   | EKYB800E□□681ML25S |
|                          | 1,800       | 16×35.5               | 0.016                        | 0.064 | 3,550   | EKYB500E□□182MLP1S |                          | 820         | 16×31.5               | 0.022                        | 0.088              | 2,400   | EKYB800E□□821MLN3S |
|                          | 2,200       | 16×40                 | 0.014                        | 0.056 | 3,900   | EKYB500E□□222ML40S |                          | 820         | 18×25                 | 0.027                        | 0.11               | 2,270   | EKYB800E□□821MM25S |
|                          | 2,200       | 18×31.5               | 0.014                        | 0.056 | 3,800   | EKYB500E□□222MMN3S |                          | 1,000       | 16×35.5               | 0.020                        | 0.080              | 2,600   | EKYB800E□□102MLP1S |
| 2,700                    | 18×35.5     | 0.013                 | 0.052                        | 4,100 | EKYB500E□□272MMP1S  | 1,200              | 16×40                    | 0.018       | 0.072                 | 2,900                        | EKYB800E□□122ML40S |   |                    |
| 63                       | 18          | 5×11                  | 0.50                         | 2.0   | 220   | EKYB630E□□180ME11D | 1,200                    | 18×31.5     | 0.020                 | 0.080                        | 2,550              | EKYB800E□□122MMN3S  |                    |
|                          | 33          | 6.3×11                | 0.25                         | 1.0   | 350   | EKYB630E□□330MF11D | 1,500                    | 18×35.5     | 0.018                 | 0.072                        | 3,050              | EKYB800E□□152MMP1S  |                    |
|                          | 56          | 8×11.5                | 0.16                         | 0.64  | 530   | EKYB630E□□560MHB5D | 100                      | 6.8         | 5×11                  | 0.80                         | 3.2                | 163   | EKYB101E□□6R8ME11D |
|                          | 82          | 8×15                  | 0.12                         | 0.48  | 700   | EKYB630E□□820MH15D |                          | 15          | 6.3×11                | 0.43                         | 1.8                | 267   | EKYB101E□□150MF11D |
|                          | 120         | 8×20                  | 0.085                        | 0.34  | 880   | EKYB630E□□121MH20S |                          | 27          | 8×11.5                | 0.18                         | 0.72               | 462   | EKYB101E□□270MHB5D |
|                          | 120         | 10×12.5               | 0.11                         | 0.44  | 725   | EKYB630E□□121MJC5S |                          | 39          | 8×15                  | 0.14                         | 0.56               | 585   | EKYB101E□□390MH15D |
|                          | 180         | 10×16                 | 0.073                        | 0.30  | 1,050   | EKYB630E□□181MJ16S |                          | 56          | 8×20                  | 0.11                         | 0.44               | 735   | EKYB101E□□560MH20D |
|                          | 220         | 10×20                 | 0.055                        | 0.22  | 1,300   | EKYB630E□□221MJ20S |                          | 56          | 10×12.5               | 0.14                         | 0.56               | 624   | EKYB101E□□560MJC5S |
|                          | 330         | 10×25                 | 0.045                        | 0.18  | 1,550   | EKYB630E□□331MJ25S |                          | 82          | 10×16                 | 0.10                         | 0.40               | 780   | EKYB101E□□820MJ16S |
|                          | 390         | 10×30                 | 0.040                        | 0.16  | 1,780   | EKYB630E□□391MJ30S |                          | 100         | 10×20                 | 0.075                        | 0.30               | 1,040   | EKYB101E□□101MJ20S |
|                          | 390         | 12.5×20               | 0.036                        | 0.15  | 1,780   | EKYB630E□□391MK20S |                          | 120         | 10×25                 | 0.060                        | 0.24               | 1,170   | EKYB101E□□121MJ25S |
|                          | 560         | 12.5×25               | 0.030                        | 0.12  | 2,100   | EKYB630E□□561MK25S |                          | 150         | 10×30                 | 0.053                        | 0.22               | 1,350   | EKYB101E□□151MJ30S |
|                          | 680         | 12.5×30               | 0.026                        | 0.11  | 2,415   | EKYB630E□□681MK30S |                          | 180         | 12.5×20               | 0.048                        | 0.20               | 1,430   | EKYB101E□□181MK20S |
|                          | 680         | 16×20                 | 0.028                        | 0.12  | 2,250   | EKYB630E□□681ML20S |                          | 220         | 12.5×25               | 0.039                        | 0.16               | 1,620   | EKYB101E□□221MK25S |
|                          | 820         | 12.5×35               | 0.022                        | 0.088 | 2,700   | EKYB630E□□821MK35S |                          | 270         | 12.5×30               | 0.033                        | 0.14               | 1,950   | EKYB101E□□271MK30S |
|                          | 820         | 18×20                 | 0.028                        | 0.12  | 2,500   | EKYB630E□□821MM20S |                          | 270         | 16×20                 | 0.036                        | 0.15               | 1,750   | EKYB101E□□271ML20S |
|                          | 1,000       | 12.5×40               | 0.020                        | 0.080 | 3,000   | EKYB630E□□102MK40S |                          | 330         | 16×25                 | 0.028                        | 0.12               | 2,250   | EKYB101E□□331ML25S |
|                          | 1,000       | 16×25                 | 0.025                        | 0.10  | 2,730   | EKYB630E□□102ML25S |                          | 390         | 12.5×35               | 0.026                        | 0.11               | 2,250   | EKYB101E□□391MK35S |
| 1,200                    | 16×31.5     | 0.020                 | 0.080                        | 3,000 | EKYB630E□□122MLN3S  | 390                |                          | 18×20       | 0.032                 | 0.13                         | 2,100              | EKYB101E□□391MM20S  |                    |
| 1,200                    | 18×25       | 0.022                 | 0.088                        | 2,800 | EKYB630E□□122MM25S  | 470                |                          | 12.5×40     | 0.024                 | 0.096                        | 2,450              | EKYB101E□□471MK40S  |                    |
| 1,500                    | 16×35.5     | 0.018                 | 0.072                        | 3,200 | EKYB630E□□152MLP1S  | 470                | 16×31.5                  | 0.022       | 0.088                 | 2,400                        | EKYB101E□□471MLN3S |   |                    |
| 1,500                    | 18×31.5     | 0.018                 | 0.072                        | 3,300 | EKYB630E□□152MMN3S  | 560                | 16×35.5                  | 0.020       | 0.080                 | 2,600                        | EKYB101E□□561MLP1S |   |                    |
| 1,800                    | 16×40       | 0.016                 | 0.064                        | 3,590 | EKYB630E□□182ML40S  | 560                | 18×25                    | 0.027       | 0.11                  | 2,270                        | EKYB101E□□561MM25S |   |                    |
| 1,800                    | 18×35.5     | 0.017                 | 0.068                        | 3,570 | EKYB630E□□182MMP1S  | 680                | 16×40                    | 0.018       | 0.072                 | 2,900                        | EKYB101E□□681ML40S |   |                    |
| 2,200                    | 18×40       | 0.016                 | 0.064                        | 3,670 | EKYB630E□□222MM40S  | 680                | 18×31.5                  | 0.020       | 0.080                 | 2,550                        | EKYB101E□□681MMN3S |   |                    |
| 80                       | 12          | 5×11                  | 0.80                         | 3.2   | 163   | EKYB800E□□120ME11D | 820                      | 18×35.5     | 0.018                 | 0.072                        | 3,050              | EKYB101E□□821MMP1S  |                    |
|                          | 22          | 6.3×11                | 0.43                         | 1.8   | 267   | EKYB800E□□220MF11D | 1,000                    | 18×40       | 0.017                 | 0.068                        | 3,510              | EKYB101E□□102MM40S  |                    |
|                          | 39          | 8×11.5                | 0.18                         | 0.72  | 462   | EKYB800E□□390MHB5D |                          |             |                       |                              |                    |   |                    |

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

◆RATED RIPPLE CURRENT MULTIPLIERS

● Frequency Multipliers

| 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.



**Стандарт  
Электрон  
Связь**

Мы молодая и активно развивающаяся компания в области поставок электронных компонентов. Мы поставляем электронные компоненты отечественного и импортного производства напрямую от производителей и с крупнейших складов мира.

Благодаря сотрудничеству с мировыми поставщиками мы осуществляем комплексные и плановые поставки широчайшего спектра электронных компонентов.

Собственная эффективная логистика и склад в обеспечивает надежную поставку продукции в точно указанные сроки по всей России.

Мы осуществляем техническую поддержку нашим клиентам и предпродажную проверку качества продукции. На все поставляемые продукты мы предоставляем гарантию .

Осуществляем поставки продукции под контролем ВП МО РФ на предприятия военно-промышленного комплекса России , а также работаем в рамках 275 ФЗ с открытием отдельных счетов в уполномоченном банке. Система менеджмента качества компании соответствует требованиям ГОСТ ISO 9001.

Минимальные сроки поставки, гибкие цены, неограниченный ассортимент и индивидуальный подход к клиентам являются основой для выстраивания долгосрочного и эффективного сотрудничества с предприятиями радиоэлектронной промышленности, предприятиями ВПК и научно-исследовательскими институтами России.

С нами вы становитесь еще успешнее!

**Наши контакты:**

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