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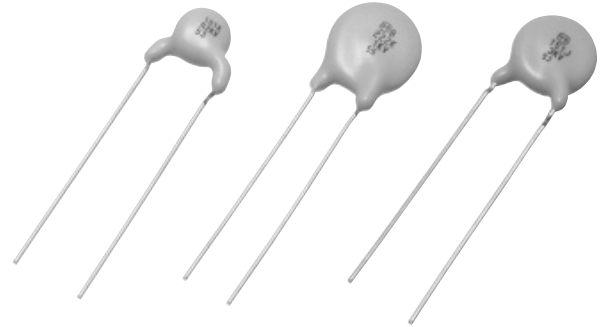
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## High Voltage Ceramic Disc Capacitors (Low loss type)

Series: **KGE/Char. SL/GP, 1 to 6 kVDC**

Series: **KBP/Char. B/Y5P, 1 to 3 kVDC**

Series: **KRP/Char. R/Y5R, 1 to 3 kVDC**



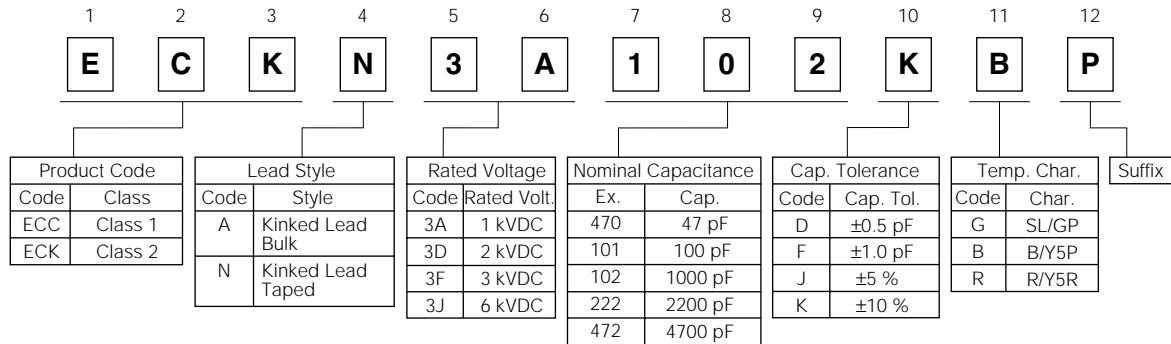
### Features

- Wide operating temperature range: (-25 to 105 °C or -25 to 125 °C)
- Improved Voltage vs. Temperature Rise
- Flame-retardant insulated coating
- Easy mounting through kinked leads and radial taping

### Recommended Applications

- Snubber circuit for switching power supply
- Horizontal resonance circuitry for TVs and CRT displays
- Inverter type lighting apparatus
- Ballast circuit for LCD backlighting inverter (For series KGE)
- Other high voltage pulse and DC circuitry

### Explanation of Part Numbers



### Specifications

| Characteristic                  | Series KGE  | Series KBP, KRP  |              |           |                |             |     |       |       |              |     |       |       |              |
|---------------------------------|---|--|--------------|-----------|----------------|-------------|-----|-------|-------|--------------|-----|-------|-------|--------------|
| Operating Temperature Range     | -25 to 105 °C   | -25 to 125 °C  |              |           |                |             |     |       |       |              |     |       |       |              |
| Rated Voltage                   | 1 kVDC to 6 kVDC  | 1 kVDC to 3 kVDC   |              |           |                |             |     |       |       |              |     |       |       |              |
| Dielectric Withstanding Voltage | Rated Voltage 1 to 3 kVDC:<br>200 % of Rated Voltage for 1 to 5 seconds<br>Rated Voltage 6 kVDC:<br>150 % of Rated Voltage for 1 to 5 seconds | Rated Voltage 1 to 3 kVDC:<br>200 % of Rated Voltage for 1 to 5 seconds  |              |           |                |             |     |       |       |              |     |       |       |              |
| Capacitance                     | Within the specified tolerance, when measured at 1 MHz ± 20 %, 1 to 5 Vrms, and 20 °C   | Within the specified tolerance, when measured at 1 kHz ± 20 %, 1 to 5 Vrms, and 20 °C  |              |           |                |             |     |       |       |              |     |       |       |              |
| Q or Dissipation Factor (tanδ)  | 30 pF or under Q > 400+20 C (C:Cap.pF)<br>over 30 pF Q > 1000 at 1 MHz ± 20 %, 1 to 5 Vrms. and 20 °C   | Series KBP : tanδ > 0.025<br>Series KRP : tanδ > 0.002 at 1 kHz ± 20 %, 1 to 5 Vrms. and 20 °C   |              |           |                |             |     |       |       |              |     |       |       |              |
| Insulation Resistance           | 10000 M Ω min. at 500 VDC 1 minute electrification  |  |              |           |                |             |     |       |       |              |     |       |       |              |
| Temperature Characteristics     | Temperature Coefficient:<br>+350 to -1000 ppm/°C (Temperature Range:20 to 85°C)   | <table border="1"> <thead> <tr> <th>Series</th> <th>Temp.Char</th> <th>max.Cap.Change</th> <th>Temp. Range</th> </tr> </thead> <tbody> <tr> <td>KBP</td> <td>B/Y5P</td> <td>±10 %</td> <td>-25 to 85 °C</td> </tr> <tr> <td>KRP</td> <td>R/Y5R</td> <td>±15 %</td> <td>-25 to 85 °C</td> </tr> </tbody> </table> | Series       | Temp.Char | max.Cap.Change | Temp. Range | KBP | B/Y5P | ±10 % | -25 to 85 °C | KRP | R/Y5R | ±15 % | -25 to 85 °C |
| Series                          | Temp.Char   | max.Cap.Change   | Temp. Range  |           |                |             |     |       |       |              |     |       |       |              |
| KBP                             | B/Y5P   | ±10 %  | -25 to 85 °C |           |                |             |     |       |       |              |     |       |       |              |
| KRP                             | R/Y5R   | ±15 %  | -25 to 85 °C |           |                |             |     |       |       |              |     |       |       |              |

### Rated Voltage and Capacitance Range

| Series Name | Temp. Char. | Rated Voltage | Capacitance Range in pF |     |      |       | Typical Applications                               |
|-------------|-------------|---------------|-------------------------|-----|------|-------|--|
|             |             |               | 10                      | 100 | 1000 | 10000 |  |
| Series KGE  | SL          | 1 kVDC        | 470                     |     |      |       | Ballast circuit of LCD backlighting inverter       |
|             |             | 2 kVDC        | 220                     |     |      |       |  |
|             |             | 3 kVDC        | 150                     |     |      |       | Snubber circuit of switching power supply          |
|             |             | 6 kVDC        | 150                     |     |      |       |  |
| Series KBP  | B           | 1 kVDC        | 5600                    |     |      |       | Snubber circuit of switching power supply          |
|             |             | 2 kVDC        | 5600                    |     |      |       | Horizontal resonance circuit of TV and CRT display |
|             |             | 3 kVDC        | 2700                    |     |      |       |  |
| Series KRP  | R           | 1 kVDC        | 4700                    |     |      |       | Snubber circuit of switching power supply          |
|             |             | 2 kVDC        | 4700                    |     |      |       |  |
|             |             | 3 kVDC        | 2200                    |     |      |       |  |

### Dimensions "D" (Body Diameter)

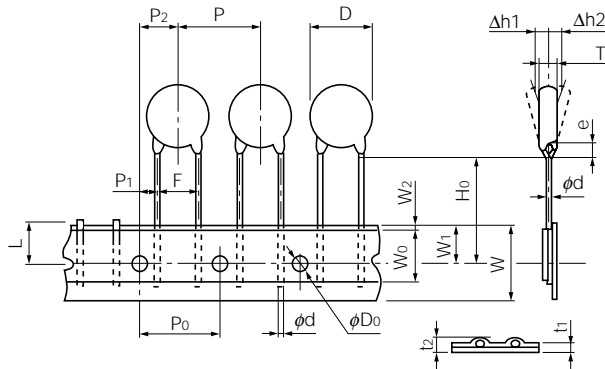
unit : mm

| Cap. in pF | KGE  |      |      |      | KBP  |      |      | KRP  |      |      |
|------------|------|------|------|------|------|------|------|------|------|------|
|            | 1 kV | 2 kV | 3 kV | 6 kV | 1 kV | 2 kV | 3 kV | 1 kV | 2 kV | 3 kV |
| 12 to 22   | 6.0  | 7.0  | 7.0  | 7.0  |      |      |      |      |      |      |
| 22 to 33   | 6.0  | 7.0  | 7.0  | 8.0  |      |      |      |      |      |      |
| 39         | 6.0  | 7.0  | 7.0  | 9.0  |      |      |      |      |      |      |
| 47         | 6.0  | 7.0  | 7.0  | 9.0  |      |      |      |      |      |      |
| 56         | 6.0  | 7.0  | 8.0  | 10.0 |      |      |      |      |      |      |
| 68         | 6.0  | 7.0  | 8.0  | 11.0 |      |      |      |      |      |      |
| 82         | 6.0  | 7.0  | 9.0  | 11.0 |      |      |      |      |      |      |
| 100        | 7.0  | 8.0  | 10.0 | 13.0 | 6.0  | 7.0  | 7.5  | 6.0  | 7.0  | 7.5  |
| 120        | 7.0  | 8.0  | 10.0 | 13.0 | 6.0  | 7.0  | 7.5  | 6.0  | 7.0  | 7.5  |
| 150        | 8.0  | 9.0  | 11.0 | 15.0 | 6.0  | 7.0  | 7.5  | 6.0  | 7.0  | 7.5  |
| 180        | 8.0  | 10.0 |      |      | 6.0  | 7.0  | 7.5  | 6.0  | 7.0  | 7.5  |
| 220        | 9.0  | 10.0 |      |      | 6.0  | 7.0  | 7.5  | 6.0  | 7.0  | 8.0  |
| 270        | 9.0  |      |      |      | 6.0  | 7.0  | 7.5  | 6.0  | 7.0  | 8.0  |
| 330        | 11.0 |      |      |      | 6.0  | 7.0  | 8.0  | 6.0  | 7.5  | 8.5  |
| 390        | 11.0 |      |      |      | 6.0  | 7.0  | 9.0  | 7.0  | 7.5  | 9.5  |
| 470        | 13.0 |      |      |      | 6.0  | 7.5  | 9.5  | 7.0  | 9.0  | 9.5  |
| 560        |      |      |      |      | 7.0  | 8.0  | 10.0 | 7.0  | 9.0  | 10.5 |
| 680        |      |      |      |      | 7.0  | 9.0  | 11.0 | 7.5  | 10.0 | 10.5 |
| 820        |      |      |      |      | 7.5  | 9.0  | 11.0 | 7.5  | 10.0 | 12.5 |
| 1000       |      |      |      |      | 9.0  | 10.0 | 12.5 | 9.0  | 12.0 | 12.5 |
| 1200       |      |      |      |      | 9.0  | 10.5 | 14.5 | 9.0  | 12.0 | 14.5 |
| 1500       |      |      |      |      | 9.5  | 12.0 | 14.5 | 10.5 | 12.0 | 14.5 |
| 1800       |      |      |      |      | 12.0 | 12.5 | 16.0 | 10.5 | 14.0 | 16.5 |
| 2200       |      |      |      |      | 12.0 | 14.0 | 17.0 | 11.5 | 16.0 | 17.0 |
| 2700       |      |      |      |      | 13.5 | 16.0 | 18.5 | 13.0 | 16.0 |      |
| 3300       |      |      |      |      | 13.5 | 17.0 |      | 13.0 | 19.0 |      |
| 3900       |      |      |      |      | 15.5 | 18.0 |      | 14.0 | 20.0 |      |
| 4700       |      |      |      |      | 15.5 | 25.0 |      | 16.5 | 21.0 |      |
| 5600       |      |      |      |      | 17.0 | 25.0 |      |      |      |      |

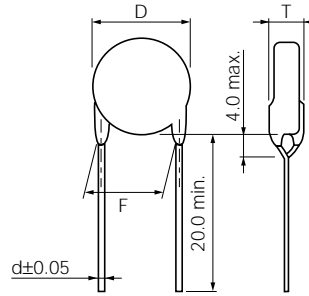
### ■ Dimensions in mm (not to scale)

Standard lead styles are available in Kinked Lead and Kinked Lead Taping shown below.

#### ● Kinked Lead Taping Type N0, N1



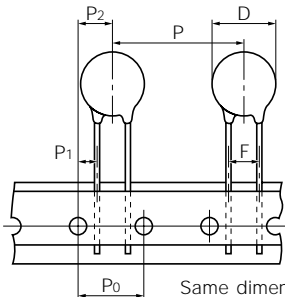
#### ● Kinked Lead Type



Note: Tolerance of Lead Space

| Dim. F (Nominal) | Tolerance of Dim. F |
|------------------|---------------------|
| 5.0              | ±1.0                |
| 7.5              | ±1.5                |
| 10.0             | ±1.5                |

#### Type N2



Same dimensions as Type N0, N1 except for special dimensions.

Unit (mm)

| Taping Type <sup>a</sup>          | N0   | N1        | N2        |
|-----------------------------------|--|-----------|-----------|
| Symbol                            |  |           |           |
| P                                 | 12.7±1.0                                     | 15.0±2.0  | 30.0±2.0  |
| P <sub>0</sub>                    | 12.7±0.3                                     | 15.0±0.3  | 15.0±0.3  |
| F                                 | 5.0±0.8                                      | 7.5±1.0   | 7.5±1.0   |
| P <sub>1</sub>                    | 3.85±0.70                                    | 3.75±0.80 | 3.75±0.80 |
| P <sub>2</sub>                    | 6.35±1.30                                    | 7.5±1.5   | 7.5±1.5   |
| D                                 | To comply with each individual specification |           |           |
| W                                 | 18.0 <sup>+0.2</sup> <sub>-0.2</sub>         |           |           |
| W <sub>0</sub>                    | 10.0 min.                                    |           |           |
| W <sub>1</sub>                    | 9.0±0.5                                      |           |           |
| W <sub>2</sub>                    | 3.0 max.                                     |           |           |
| H <sub>0</sub>                    | 18.0 <sup>+0.2</sup> <sub>-0.2</sub>         |           |           |
| e                                 | 4.0 max.                                     |           |           |
| φD <sub>0</sub>                   | 4.0±0.2                                      |           |           |
| φd                                | 0.60±0.05                                    | 0.65±0.05 | 0.65±0.05 |
| t <sub>1</sub>                    | 0.6±0.3                                      |           |           |
| t <sub>2</sub>                    | 1.5 max.                                     |           |           |
| T                                 | To comply with each individual specification |           |           |
| Δh <sub>1</sub> , Δh <sub>2</sub> | 2.0 max.                                     |           |           |
| L                                 | 11.0 max.                                    |           |           |

### ■ Minimum Quantity/Packing Unit

| Series / Type                                  |                               | Part Number     |                               | Minimum Packing Quantity | Packing Quantity in Carton | Carton L×W×H(mm) |      |
|--|-------------------------------|-----------------|-------------------------------|--------------------------|----------------------------|------------------|------|
| Temp. Char. SL/GP<br>1 to 6 kVDC<br>Series KGE | Kinked Lead Bulk 1 kVDC       | ECCA3A□□□□GE    | 12 to 120 pF                  | 200                      | 5000                       | 365×197×126      |      |
|  |                               |                 | 150 to 470 pF                 | 200                      | 4000                       |                  |      |
|  | Kinked Lead Bulk 2 kVDC       | ECCA3D□□□□GE    | 12 to 82 pF                   | 200                      | 10000                      |                  |      |
|  |                               |                 | 100 to 150 pF                 | 200                      | 4000                       |                  |      |
|  | Kinked Lead Bulk 3 kVDC       | ECCA3F□□□□GE    | 12 to 82 pF                   | 200                      | 4000                       |                  |      |
|  |                               |                 | 100 to 150 pF                 | 200                      | 2000                       |                  |      |
|  | Kinked Lead Bulk 6 kVDC       | ECCA3J□□□□GE    | 5 to 82 pF                    | 200                      | 3000                       |                  |      |
|  |                               |                 | 100 to 150 pF                 | 200                      | 2000                       |                  |      |
| Temp. Char. B/Y5P<br>1 to 3 kVDC<br>Series KBP | Kinked Lead Taped Type 1 kVDC | ECCN3A□□□□GE    | 12 to 470 pF                  | 2000                     | 10000                      | 358×232×305      |      |
|  |                               |                 | Kinked Lead Taped Type 2 kVDC | ECCN3D□□□□GE             | 12 to 220 pF               |                  | 1000 |
|  | Kinked Lead Taped Type 3 kVDC | ECCN3F□□□□GE    |                               |                          | 12 to 150 pF               |                  | 1000 |
|  |                               |                 | Kinked Lead Taped Type 6 kVDC | ECCN3J□□□□GE             | 5 to 150 pF                |                  | 500  |
|  | Kinked Lead Bulk 1 kVDC       | ECKA3A□□□□KBP   |                               |                          | 100 to 680 pF              |                  | 200  |
|  |                               |                 | 820 to 3900 pF                | 200                      | 4000                       |                  |      |
|  | Kinked Lead Bulk 2 kVDC       | ECKA3D□□□□KBP   | 470 to 5600 pF                | 200                      | 2000                       |                  |      |
|  |                               |                 | 100 to 560 pF                 | 200                      | 4000                       |                  |      |
| Kinked Lead Bulk 3 kVDC                        | ECKA3F□□□□KBP                 | 680 to 3900 pF  | 200                           | 2000                     |                            |                  |      |
|  |                               | 470 to 5600 pF  | 100                           | 1000                     |                            |                  |      |
| Kinked Lead Taped Type 1 kVDC                  | ECKN3A□□□□KBP                 | 100 to 390 pF   | 200                           | 4000                     |                            |                  |      |
|  |                               | 470 to 2200 pF  | 200                           | 2000                     |                            |                  |      |
| Kinked Lead Taped Type 2 kVDC                  | ECKN3D□□□□KBP                 | 2700 pF         | 100                           | 1000                     |                            |                  |      |
|  |                               | 100 to 1000 pF  | 2000                          | 10000                    |                            |                  |      |
| Kinked Lead Taped Type 3 kVDC                  | ECKN3F□□□□KBP                 | 1200 to 3300 pF | 1000                          | 5000                     |                            |                  |      |
|  |                               | 3900 to 4700 pF | 500                           | 2500                     |                            |                  |      |
| Kinked Lead Taped Type 6 kVDC                  | ECKN3J□□□□KBP                 | 100 to 1800 pF  | 1000                          | 5000                     |                            |                  |      |
|  |                               | 2200 to 3900 pF | 500                           | 2500                     |                            |                  |      |
| Temp. Char. R/Y5R<br>1 to 3 kVDC<br>Series KRP | Kinked Lead Bulk 1 kVDC       | ECKA3A□□□□KRP   | 100 to 1000 pF                | 200                      | 5000                       | 365×197×126      |      |
|  |                               |                 | 680 to 3900 pF                | 200                      | 4000                       |                  |      |
|  | Kinked Lead Bulk 2 kVDC       | ECKA3D□□□□KRP   | 4700 pF                       | 200                      | 2000                       |                  |      |
|  |                               |                 | 100 to 390 pF                 | 200                      | 4000                       |                  |      |
|  | Kinked Lead Bulk 3 kVDC       | ECKA3F□□□□KRP   | 470 to 2700 pF                | 200                      | 2000                       |                  |      |
|  |                               |                 | 3300 to 4700 pF               | 100                      | 1000                       |                  |      |
|  | Kinked Lead Taped Type 1 kVDC | ECKN3A□□□□KRP   | 100 to 330 pF                 | 200                      | 4000                       |                  |      |
|  |                               |                 | 390 to 1500 pF                | 200                      | 2000                       |                  |      |
| Kinked Lead Taped Type 2 kVDC                  | ECKN3D□□□□KRP                 | 1800, 2200 pF   | 200                           | 1000                     |                            |                  |      |
|  |                               | 100 to 820 pF   | 2000                          | 10000                    |                            |                  |      |
| Kinked Lead Taped Type 3 kVDC                  | ECKN3F□□□□KRP                 | 1000 to 2200 pF | 1000                          | 5000                     |                            |                  |      |
|  |                               | 2700 to 3900 pF | 500                           | 2500                     |                            |                  |      |
| Kinked Lead Taped Type 6 kVDC                  | ECKN3J□□□□KRP                 | 100 to 1500 pF  | 1000                          | 5000                     |                            |                  |      |
|  |                               | 100 to 820 pF   | 1000                          | 5000                     |                            |                  |      |

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use. Should a safety concern arise regarding this product, please be sure to contact us immediately.

### ■ Ratings and Characteristics

- Series KGE (Class 1, Temp. Char. SL/GP, 1 kVDC to 6 kVDC)

| Rated Volt. | Cap. in pF | Capacitance Tolerance (%) | Dimensions in mm |              | Kinked Lead Type (Bulk) |                  |              | Kinked Lead Taping Type |            |                  |      |
|-------------|------------|---------------------------|------------------|--------------|-------------------------|------------------|--------------|-------------------------|------------|------------------|------|
|             |            |                           | D max.           | T max.       | Part Number             | Dimensions in mm |              | Part Number             | Taped Type | Dimensions in mm |      |
|             |            |                           |                  |              |                         | F                | d            |                         |            | F                | d    |
| 1 kVDC      | 12         | ±5, ±10                   | 6.0              | 5.0          | ECCA3A120□GE            | 5.0              | 0.60         | ECCN3A120□GE            | NO         | 5.0              | 0.60 |
|             | 15         | ±5, ±10                   | 6.0              | 5.0          | ECCA3A150□GE            | 5.0              | 0.60         | ECCN3A150□GE            | NO         | 5.0              | 0.60 |
|             | 18         | ±5, ±10                   | 6.0              | 5.0          | ECCA3A180□GE            | 5.0              | 0.60         | ECCN3A180□GE            | NO         | 5.0              | 0.60 |
|             | 22         | ±5, ±10                   | 6.0              | 5.0          | ECCA3A220□GE            | 5.0              | 0.60         | ECCN3A220□GE            | NO         | 5.0              | 0.60 |
|             | 27         | ±5, ±10                   | 6.0              | 5.0          | ECCA3A270□GE            | 5.0              | 0.60         | ECCN3A270□GE            | NO         | 5.0              | 0.60 |
|             | 33         | ±5, ±10                   | 6.0              | 5.0          | ECCA3A330□GE            | 5.0              | 0.60         | ECCN3A330□GE            | NO         | 5.0              | 0.60 |
|             | 39         | ±5, ±10                   | 6.0              | 5.0          | ECCA3A390□GE            | 5.0              | 0.60         | ECCN3A390□GE            | NO         | 5.0              | 0.60 |
|             | 47         | ±5, ±10                   | 6.0              | 5.0          | ECCA3A470□GE            | 5.0              | 0.60         | ECCN3A470□GE            | NO         | 5.0              | 0.60 |
|             | 56         | ±5, ±10                   | 6.0              | 5.0          | ECCA3A560□GE            | 5.0              | 0.60         | ECCN3A560□GE            | NO         | 5.0              | 0.60 |
|             | 68         | ±5, ±10                   | 6.0              | 5.0          | ECCA3A680□GE            | 5.0              | 0.60         | ECCN3A680□GE            | NO         | 5.0              | 0.60 |
|             | 82         | ±5, ±10                   | 6.0              | 5.0          | ECCA3A820□GE            | 5.0              | 0.60         | ECCN3A820□GE            | NO         | 5.0              | 0.60 |
|             | 100        | ±5, ±10                   | 7.0              | 5.0          | ECCA3A101□GE            | 5.0              | 0.60         | ECCN3A101□GE            | NO         | 5.0              | 0.60 |
|             | 120        | ±5, ±10                   | 7.0              | 5.0          | ECCA3A121□GE            | 5.0              | 0.60         | ECCN3A121□GE            | NO         | 5.0              | 0.60 |
|             | 150        | ±5, ±10                   | 8.0              | 5.0          | ECCA3A151□GE            | 5.0              | 0.60         | ECCN3A151□GE            | NO         | 5.0              | 0.60 |
|             | 180        | ±5, ±10                   | 8.0              | 5.0          | ECCA3A181□GE            | 5.0              | 0.60         | ECCN3A181□GE            | NO         | 5.0              | 0.60 |
|             | 220        | ±5, ±10                   | 9.0              | 5.0          | ECCA3A221□GE            | 5.0              | 0.60         | ECCN3A221□GE            | NO         | 5.0              | 0.60 |
|             | 270        | ±5, ±10                   | 9.0              | 5.0          | ECCA3A271□GE            | 5.0              | 0.60         | ECCN3A271□GE            | NO         | 5.0              | 0.60 |
|             | 330        | ±5, ±10                   | 11.0             | 5.0          | ECCA3A331□GE            | 5.0              | 0.60         | ECCN3A331□GE            | NO         | 5.0              | 0.60 |
| 390         | ±5, ±10    | 11.0                      | 5.0              | ECCA3A391□GE | 5.0                     | 0.60             | ECCN3A391□GE | NO                      | 5.0        | 0.60             |      |
| 470         | ±5, ±10    | 13.0                      | 5.0              | ECCA3A471□GE | 7.5                     | 0.65             | ECCN3A471□GE | N1                      | 7.5        | 0.65             |      |
| 2 kVDC      | 12         | ±5, ±10                   | 7.0              | 5.5          | ECCA3D120□GE            | 7.5              | 0.65         | ECCN3D120□GE            | N1         | 7.5              | 0.65 |
|             | 15         | ±5, ±10                   | 7.0              | 5.5          | ECCA3D150□GE            | 7.5              | 0.65         | ECCN3D150□GE            | N1         | 7.5              | 0.65 |
|             | 18         | ±5, ±10                   | 7.0              | 5.5          | ECCA3D180□GE            | 7.5              | 0.65         | ECCN3D180□GE            | N1         | 7.5              | 0.65 |
|             | 22         | ±5, ±10                   | 7.0              | 5.5          | ECCA3D220□GE            | 7.5              | 0.65         | ECCN3D220□GE            | N1         | 7.5              | 0.65 |
|             | 27         | ±5, ±10                   | 7.0              | 5.5          | ECCA3D270□GE            | 7.5              | 0.65         | ECCN3D270□GE            | N1         | 7.5              | 0.65 |
|             | 33         | ±5, ±10                   | 7.0              | 5.5          | ECCA3D330□GE            | 7.5              | 0.65         | ECCN3D330□GE            | N1         | 7.5              | 0.65 |
|             | 39         | ±5, ±10                   | 7.0              | 5.5          | ECCA3D390□GE            | 7.5              | 0.65         | ECCN3D390□GE            | N1         | 7.5              | 0.65 |
|             | 47         | ±5, ±10                   | 7.0              | 5.5          | ECCA3D470□GE            | 7.5              | 0.65         | ECCN3D470□GE            | N1         | 7.5              | 0.65 |
|             | 56         | ±5, ±10                   | 7.0              | 5.5          | ECCA3D560□GE            | 7.5              | 0.65         | ECCN3D560□GE            | N1         | 7.5              | 0.65 |
|             | 68         | ±5, ±10                   | 7.0              | 5.5          | ECCA3D680□GE            | 7.5              | 0.65         | ECCN3D680□GE            | N1         | 7.5              | 0.65 |
|             | 82         | ±5, ±10                   | 7.0              | 5.5          | ECCA3D820□GE            | 7.5              | 0.65         | ECCN3D820□GE            | N1         | 7.5              | 0.65 |
|             | 100        | ±5, ±10                   | 8.0              | 5.5          | ECCA3D101□GE            | 7.5              | 0.65         | ECCN3D101□GE            | N1         | 7.5              | 0.65 |
| 120         | ±5, ±10    | 8.0                       | 5.5              | ECCA3D121□GE | 7.5                     | 0.65             | ECCN3D121□GE | N1                      | 7.5        | 0.65             |      |
| 150         | ±5, ±10    | 9.0                       | 5.5              | ECCA3D151□GE | 7.5                     | 0.65             | ECCN3D151□GE | N1                      | 7.5        | 0.65             |      |
| 180         | ±5, ±10    | 10.0                      | 5.5              | ECCA3D181□GE | 7.5                     | 0.65             | ECCN3D181□GE | N1                      | 7.5        | 0.65             |      |
| 220         | ±5, ±10    | 10.0                      | 5.5              | ECCA3D221□GE | 7.5                     | 0.65             | ECCN3D221□GE | N1                      | 7.5        | 0.65             |      |
| 3 kVDC      | 12         | ±5, ±10                   | 7.0              | 6.0          | ECCA3F120□GE            | 7.5              | 0.65         | ECCN3F120□GE            | N1         | 7.5              | 0.65 |
|             | 15         | ±5, ±10                   | 7.0              | 6.0          | ECCA3F150□GE            | 7.5              | 0.65         | ECCN3F150□GE            | N1         | 7.5              | 0.65 |
|             | 18         | ±5, ±10                   | 7.0              | 6.0          | ECCA3F180□GE            | 7.5              | 0.65         | ECCN3F180□GE            | N1         | 7.5              | 0.65 |
|             | 22         | ±5, ±10                   | 7.0              | 6.0          | ECCA3F220□GE            | 7.5              | 0.65         | ECCN3F220□GE            | N1         | 7.5              | 0.65 |
|             | 27         | ±5, ±10                   | 7.0              | 6.0          | ECCA3F270□GE            | 7.5              | 0.65         | ECCN3F270□GE            | N1         | 7.5              | 0.65 |
|             | 33         | ±5, ±10                   | 7.0              | 6.0          | ECCA3F330□GE            | 7.5              | 0.65         | ECCN3F330□GE            | N1         | 7.5              | 0.65 |
|             | 39         | ±5, ±10                   | 7.0              | 6.0          | ECCA3F390□GE            | 7.5              | 0.65         | ECCN3F390□GE            | N1         | 7.5              | 0.65 |
|             | 47         | ±5, ±10                   | 7.0              | 6.0          | ECCA3F470□GE            | 7.5              | 0.65         | ECCN3F470□GE            | N1         | 7.5              | 0.65 |
|             | 56         | ±5, ±10                   | 8.0              | 6.0          | ECCA3F560□GE            | 7.5              | 0.65         | ECCN3F560□GE            | N1         | 7.5              | 0.65 |
|             | 68         | ±5, ±10                   | 8.0              | 6.0          | ECCA3F680□GE            | 7.5              | 0.65         | ECCN3F680□GE            | N1         | 7.5              | 0.65 |
|             | 82         | ±5, ±10                   | 9.0              | 6.0          | ECCA3F820□GE            | 7.5              | 0.65         | ECCN3F820□GE            | N1         | 7.5              | 0.65 |
|             | 100        | ±5, ±10                   | 10.0             | 6.0          | ECCA3F101□GE            | 7.5              | 0.65         | ECCN3F101□GE            | N1         | 7.5              | 0.65 |
| 120         | ±5, ±10    | 10.0                      | 6.0              | ECCA3F121□GE | 7.5                     | 0.65             | ECCN3F121□GE | N1                      | 7.5        | 0.65             |      |
| 150         | ±5, ±10    | 11.0                      | 6.0              | ECCA3F151□GE | 7.5                     | 0.65             | ECCN3F151□GE | N1                      | 7.5        | 0.65             |      |

Note : □--Capacitance Tolerance Code J (± 5%) or K (± 10%)

### ■ Ratings and Characteristics

- Series KGE (Class 1, Temp. Char. SL/GP, 1 to 6 kVDC) (Continuation)

| Rated Volt. | Cap. in pF | Capacitance Tolerance (%) | Dimensions in mm |              | Kinked Lead Type (Bulk) |                  |              | Kinked Lead Taping Type |            |                  |      |
|-------------|------------|---------------------------|------------------|--------------|-------------------------|------------------|--------------|-------------------------|------------|------------------|------|
|             |            |                           | D max.           | T max.       | Part Number             | Dimensions in mm |              | Part Number             | Taped Type | Dimensions in mm |      |
|             |            |                           |                  |              |                         | F                | d            |                         |            | F                | d    |
| 6 kVDC      | 5          | ±0.5pF or ±1pF            | 7.0              | 6.0          | ECCA3J050□GE            | 7.5              | 0.65         | ECCN3J050□GE            | N1         | 7.5              | 0.65 |
|             | 6          | ±0.5pF or ±1pF            | 7.0              | 6.0          | ECCA3J060□GE            | 7.5              | 0.65         | ECCN3J060□GE            | N1         | 7.5              | 0.65 |
|             | 7          | ±0.5pF or ±1pF            | 7.0              | 6.0          | ECCA3J070□GE            | 7.5              | 0.65         | ECCN3J070□GE            | N1         | 7.5              | 0.65 |
|             | 8          | ±0.5pF or ±1pF            | 7.0              | 6.0          | ECCA3J080□GE            | 7.5              | 0.65         | ECCN3J080□GE            | N1         | 7.5              | 0.65 |
|             | 9          | ±0.5pF or ±1pF            | 7.0              | 6.0          | ECCA3J090□GE            | 7.5              | 0.65         | ECCN3J090□GE            | N1         | 7.5              | 0.65 |
|             | 10         | ±0.5pF or ±1pF            | 7.0              | 6.0          | ECCA3J100□GE            | 7.5              | 0.65         | ECCN3J100□GE            | N1         | 7.5              | 0.65 |
|             | 12         | ±5 or ±10                 | 7.0              | 6.0          | ECCA3J120□GE            | 7.5              | 0.65         | ECCN3J120□GE            | N1         | 7.5              | 0.65 |
|             | 15         | ±5 or ±10                 | 7.0              | 6.0          | ECCA3J150□GE            | 7.5              | 0.65         | ECCN3J150□GE            | N1         | 7.5              | 0.65 |
|             | 18         | ±5 or ±10                 | 7.0              | 6.0          | ECCA3J180□GE            | 7.5              | 0.65         | ECCN3J180□GE            | N1         | 7.5              | 0.65 |
|             | 22         | ±5 or ±10                 | 7.0              | 6.0          | ECCA3J220□GE            | 7.5              | 0.65         | ECCN3J220□GE            | N1         | 7.5              | 0.65 |
|             | 27         | ±5 or ±10                 | 8.0              | 6.0          | ECCA3J270□GE            | 7.5              | 0.65         | ECCN3J270□GE            | N1         | 7.5              | 0.65 |
|             | 33         | ±5 or ±10                 | 8.0              | 6.0          | ECCA3J330□GE            | 7.5              | 0.65         | ECCN3J330□GE            | N1         | 7.5              | 0.65 |
|             | 39         | ±5 or ±10                 | 9.0              | 6.0          | ECCA3J390□GE            | 7.5              | 0.65         | ECCN3J390□GE            | N1         | 7.5              | 0.65 |
|             | 47         | ±5 or ±10                 | 9.0              | 6.0          | ECCA3J470□GE            | 7.5              | 0.65         | ECCN3J470□GE            | N1         | 7.5              | 0.65 |
|             | 56         | ±5 or ±10                 | 10.0             | 6.0          | ECCA3J560□GE            | 7.5              | 0.65         | ECCN3J560□GE            | N1         | 7.5              | 0.65 |
|             | 68         | ±5 or ±10                 | 11.0             | 6.0          | ECCA3J680□GE            | 7.5              | 0.65         | ECCN3J680□GE            | N1         | 7.5              | 0.65 |
|             | 82         | ±5 or ±10                 | 11.0             | 6.0          | ECCA3J820□GE            | 7.5              | 0.65         | ECCN3J820□GE            | N1         | 7.5              | 0.65 |
|             | 100        | ±5 or ±10                 | 13.0             | 6.0          | ECCA3J101□GE            | 7.5              | 0.65         | ECCN3J101□GE            | N1         | 7.5              | 0.65 |
| 120         | ±5 or ±10  | 13.0                      | 6.0              | ECCA3J121□GE | 7.5                     | 0.65             | ECCN3J121□GE | N1                      | 7.5        | 0.65             |      |
| 150         | ±5 or ±10  | 15.0                      | 6.0              | ECCA3J151□GE | 7.5                     | 0.65             | ECCN3J151□GE | N2                      | 7.5        | 0.65             |      |

Note : □--Capacitance Tolerance Code D (± 0.5pF) or F (± 1pF) or J (± 5%) or K (± 10%)

- Series KBP (Class 2, Temp. Char. B/Y5P, 1 to 3 kVDC)

| Rated Volt. | Cap. in pF | Capacitance Tolerance (%) | Dimensions in mm |              | Kinked Lead Type (Bulk) |                  |              | Kinked Lead Taping Type |            |                  |      |
|-------------|------------|---------------------------|------------------|--------------|-------------------------|------------------|--------------|-------------------------|------------|------------------|------|
|             |            |                           | D max.           | T max.       | Part Number             | Dimensions in mm |              | Part Number             | Taped Type | Dimensions in mm |      |
|             |            |                           |                  |              |                         | F                | d            |                         |            | F                | d    |
| 1 kVDC      | 100        | ±10                       | 6.0              | 4.5          | ECKA3A101KBP            | 5.0              | 0.60         | ECKN3A101KBP            | N0         | 5.0              | 0.60 |
|             | 120        | ±10                       | 6.0              | 4.5          | ECKA3A121KBP            | 5.0              | 0.60         | ECKN3A121KBP            | N0         | 5.0              | 0.60 |
|             | 150        | ±10                       | 6.0              | 4.5          | ECKA3A151KBP            | 5.0              | 0.60         | ECKN3A151KBP            | N0         | 5.0              | 0.60 |
|             | 180        | ±10                       | 6.0              | 4.5          | ECKA3A181KBP            | 5.0              | 0.60         | ECKN3A181KBP            | N0         | 5.0              | 0.60 |
|             | 220        | ±10                       | 6.0              | 4.5          | ECKA3A221KBP            | 5.0              | 0.60         | ECKN3A221KBP            | N0         | 5.0              | 0.60 |
|             | 270        | ±10                       | 6.0              | 4.5          | ECKA3A271KBP            | 5.0              | 0.60         | ECKN3A271KBP            | N0         | 5.0              | 0.60 |
|             | 330        | ±10                       | 6.0              | 4.5          | ECKA3A331KBP            | 5.0              | 0.60         | ECKN3A331KBP            | N0         | 5.0              | 0.60 |
|             | 390        | ±10                       | 6.0              | 4.5          | ECKA3A391KBP            | 5.0              | 0.60         | ECKN3A391KBP            | N0         | 5.0              | 0.60 |
|             | 470        | ±10                       | 6.0              | 4.5          | ECKA3A471KBP            | 5.0              | 0.60         | ECKN3A471KBP            | N0         | 5.0              | 0.60 |
|             | 560        | ±10                       | 7.0              | 4.5          | ECKA3A561KBP            | 5.0              | 0.60         | ECKN3A561KBP            | N0         | 5.0              | 0.60 |
|             | 680        | ±10                       | 7.0              | 4.5          | ECKA3A681KBP            | 5.0              | 0.60         | ECKN3A681KBP            | N0         | 5.0              | 0.60 |
|             | 820        | ±10                       | 7.5              | 4.5          | ECKA3A821KBP            | 5.0              | 0.60         | ECKN3A821KBP            | N0         | 5.0              | 0.60 |
|             | 1000       | ±10                       | 9.0              | 4.5          | ECKA3A102KBP            | 5.0              | 0.60         | ECKN3A102KBP            | N0         | 5.0              | 0.60 |
|             | 1200       | ±10                       | 9.0              | 4.5          | ECKA3A122KBP            | 5.0              | 0.60         | ECKN3A122KBP            | N0         | 5.0              | 0.60 |
|             | 1500       | ±10                       | 9.5              | 4.5          | ECKA3A152KBP            | 5.0              | 0.60         | ECKN3A152KBP            | N0         | 5.0              | 0.60 |
|             | 1800       | ±10                       | 10.0             | 4.5          | ECKA3A182KBP            | 5.0              | 0.60         | ECKN3A182KBP            | N0         | 5.0              | 0.60 |
|             | 2200       | ±10                       | 12.0             | 4.5          | ECKA3A222KBP            | 5.0              | 0.60         | ECKN3A222KBP            | N0         | 5.0              | 0.60 |
|             | 2700       | ±10                       | 12.0             | 4.5          | ECKA3A272KBP            | 5.0              | 0.60         | ECKN3A272KBP            | N0         | 5.0              | 0.60 |
|             | 3300       | ±10                       | 13.5             | 4.5          | ECKA3A332KBP            | 10.0             | 0.65         | ECKN3A332KBP            | N1         | 7.5              | 0.65 |
|             | 3900       | ±10                       | 13.5             | 4.5          | ECKA3A392KBP            | 10.0             | 0.65         | ECKN3A392KBP            | N1         | 7.5              | 0.65 |
| 4700        | ±10        | 15.5                      | 4.5              | ECKA3A472KBP | 10.0                    | 0.65             | ECKN3A472KBP | N2                      | 7.5        | 0.65             |      |
| 5600        | ±10        | 17.0                      | 4.5              | ECKA3A562KBP | 10.0                    | 0.65             | ECKN3A562KBP | N2                      | 7.5        | 0.65             |      |

### ■ Ratings and Characteristics

● Series KBP (Class 2, Temp. Char. B/Y5P, 1 to 3 kVDC) (Continuation)

| Rated Volt. | Cap. in pF | Capacitance Tolerance (%) | Dimensions in mm |              | Kinked Lead Type (Bulk) |                  |              | Kinked Lead Taping Type |            |                  |      |
|-------------|------------|---------------------------|------------------|--------------|-------------------------|------------------|--------------|-------------------------|------------|------------------|------|
|             |            |                           | D max.           | T max.       | Part Number             | Dimensions in mm |              | Part Number             | Taped Type | Dimensions in mm |      |
|             |            |                           |                  |              |                         | F                | d            |                         |            | F                | d    |
| 2 kVDC      | 100        | ±10                       | 7.0              | 5.0          | ECKA3D101KBP            | 7.5              | 0.65         | ECKN3D101KBP            | N1         | 7.5              | 0.65 |
|             | 120        | ±10                       | 7.0              | 5.0          | ECKA3D121KBP            | 7.5              | 0.65         | ECKN3D121KBP            | N1         | 7.5              | 0.65 |
|             | 150        | ±10                       | 7.0              | 5.0          | ECKA3D151KBP            | 7.5              | 0.65         | ECKN3D151KBP            | N1         | 7.5              | 0.65 |
|             | 180        | ±10                       | 7.0              | 5.0          | ECKA3D181KBP            | 7.5              | 0.65         | ECKN3D181KBP            | N1         | 7.5              | 0.65 |
|             | 220        | ±10                       | 7.0              | 5.0          | ECKA3D221KBP            | 7.5              | 0.65         | ECKN3D221KBP            | N1         | 7.5              | 0.65 |
|             | 270        | ±10                       | 7.0              | 5.0          | ECKA3D271KBP            | 7.5              | 0.65         | ECKN3D271KBP            | N1         | 7.5              | 0.65 |
|             | 330        | ±10                       | 7.0              | 5.0          | ECKA3D331KBP            | 7.5              | 0.65         | ECKN3D331KBP            | N1         | 7.5              | 0.65 |
|             | 390        | ±10                       | 7.0              | 5.0          | ECKA3D391KBP            | 7.5              | 0.65         | ECKN3D391KBP            | N1         | 7.5              | 0.65 |
|             | 470        | ±10                       | 7.5              | 5.0          | ECKA3D471KBP            | 7.5              | 0.65         | ECKN3D471KBP            | N1         | 7.5              | 0.65 |
|             | 560        | ±10                       | 8.0              | 5.0          | ECKA3D561KBP            | 7.5              | 0.65         | ECKN3D561KBP            | N1         | 7.5              | 0.65 |
|             | 680        | ±10                       | 9.0              | 5.0          | ECKA3D681KBP            | 7.5              | 0.65         | ECKN3D681KBP            | N1         | 7.5              | 0.65 |
|             | 820        | ±10                       | 9.0              | 5.0          | ECKA3D821KBP            | 7.5              | 0.65         | ECKN3D821KBP            | N1         | 7.5              | 0.65 |
|             | 1000       | ±10                       | 10.0             | 5.0          | ECKA3D102KBP            | 7.5              | 0.65         | ECKN3D102KBP            | N1         | 7.5              | 0.65 |
|             | 1200       | ±10                       | 10.5             | 5.0          | ECKA3D122KBP            | 7.5              | 0.65         | ECKN3D122KBP            | N1         | 7.5              | 0.65 |
|             | 1500       | ±10                       | 12.0             | 5.0          | ECKA3D152KBP            | 7.5              | 0.65         | ECKN3D152KBP            | N1         | 7.5              | 0.65 |
|             | 1800       | ±10                       | 12.5             | 5.0          | ECKA3D182KBP            | 7.5              | 0.65         | ECKN3D182KBP            | N1         | 7.5              | 0.65 |
|             | 2200       | ±10                       | 14.0             | 5.0          | ECKA3D222KBP            | 10.0             | 0.65         | ECKN3D222KBP            | N2         | 7.5              | 0.65 |
|             | 2700       | ±10                       | 16.0             | 5.0          | ECKA3D272KBP            | 10.0             | 0.65         | ECKN3D272KBP            | N2         | 7.5              | 0.65 |
|             | 3300       | ±10                       | 17.0             | 5.0          | ECKA3D332KBP            | 10.0             | 0.65         | ECKN3D332KBP            | N2         | 7.5              | 0.65 |
|             | 3900       | ±10                       | 18.0             | 5.0          | ECKA3D392KBP            | 10.0             | 0.65         | ECKN3D392KBP            | N2         | 7.5              | 0.65 |
| 4700        | ±10        | 25.0                      | 5.0              | ECKA3D472KBP | 10.0                    | 0.65             | —            | —                       | —          | —                |      |
| 5600        | ±10        | 25.0                      | 5.0              | ECKA3D562KBP | 10.0                    | 0.65             | —            | —                       | —          | —                |      |
| 3 kVDC      | 100        | ±10                       | 7.5              | 6.0          | ECKA3F101KBP            | 7.5              | 0.65         | ECKN3F101KBP            | N1         | 7.5              | 0.65 |
|             | 120        | ±10                       | 7.5              | 6.0          | ECKA3F121KBP            | 7.5              | 0.65         | ECKN3F121KBP            | N1         | 7.5              | 0.65 |
|             | 150        | ±10                       | 7.5              | 6.0          | ECKA3F151KBP            | 7.5              | 0.65         | ECKN3F151KBP            | N1         | 7.5              | 0.65 |
|             | 180        | ±10                       | 7.5              | 6.0          | ECKA3F181KBP            | 7.5              | 0.65         | ECKN3F181KBP            | N1         | 7.5              | 0.65 |
|             | 220        | ±10                       | 7.5              | 6.0          | ECKA3F221KBP            | 7.5              | 0.65         | ECKN3F221KBP            | N1         | 7.5              | 0.65 |
|             | 270        | ±10                       | 7.5              | 6.0          | ECKA3F271KBP            | 7.5              | 0.65         | ECKN3F271KBP            | N1         | 7.5              | 0.65 |
|             | 330        | ±10                       | 8.0              | 6.0          | ECKA3F331KBP            | 7.5              | 0.65         | ECKN3F331KBP            | N1         | 7.5              | 0.65 |
|             | 390        | ±10                       | 9.0              | 6.0          | ECKA3F391KBP            | 7.5              | 0.65         | ECKN3F391KBP            | N1         | 7.5              | 0.65 |
|             | 470        | ±10                       | 9.5              | 6.0          | ECKA3F471KBP            | 7.5              | 0.65         | ECKN3F471KBP            | N1         | 7.5              | 0.65 |
|             | 560        | ±10                       | 10.0             | 6.0          | ECKA3F561KBP            | 7.5              | 0.65         | ECKN3F561KBP            | N1         | 7.5              | 0.65 |
|             | 680        | ±10                       | 11.0             | 6.0          | ECKA3F681KBP            | 7.5              | 0.65         | ECKN3F681KBP            | N1         | 7.5              | 0.65 |
|             | 820        | ±10                       | 11.0             | 6.0          | ECKA3F821KBP            | 7.5              | 0.65         | ECKN3F821KBP            | N1         | 7.5              | 0.65 |
|             | 1000       | ±10                       | 12.5             | 6.0          | ECKA3F102KBP            | 7.5              | 0.65         | ECKN3F102KBP            | N1         | 7.5              | 0.65 |
|             | 1200       | ±10                       | 14.5             | 6.0          | ECKA3F122KBP            | 10.0             | 0.65         | ECKN3F122KBP            | N1         | 7.5              | 0.65 |
|             | 1500       | ±10                       | 14.5             | 6.0          | ECKA3F152KBP            | 10.0             | 0.65         | ECKN3F152KBP            | N1         | 7.5              | 0.65 |
|             | 1800       | ±10                       | 16.0             | 6.0          | ECKA3F182KBP            | 10.0             | 0.65         | ECKN3F182KBP            | N2         | 7.5              | 0.65 |
|             | 2200       | ±10                       | 17.0             | 6.0          | ECKA3F222KBP            | 10.0             | 0.65         | ECKN3F222KBP            | N2         | 7.5              | 0.65 |
| 2700        | ±10        | 18.5                      | 6.0              | ECKA3F272KBP | 10.0                    | 0.65             | ECKN3F272KBP | N2                      | 7.5        | 0.65             |      |

### ■ Ratings and Characteristics

- Series KRP (Class 2, Temp. Char. R/Y5R, 1 to 3 kVDC)

| Rated Volt. | Cap. in pF | Capacitance Tolerance (%) | Dimensions in mm |              | Kinked Lead Type (Bulk) |                  |      | Kinked Lead Taping Type |            |                  |      |
|-------------|------------|---------------------------|------------------|--------------|-------------------------|------------------|------|-------------------------|------------|------------------|------|
|             |            |                           | D max.           | T max.       | Part Number             | Dimensions in mm |      | Part Number             | Taped Type | Dimensions in mm |      |
|             |            |                           |                  |              |                         | F                | d    |                         |            | F                | d    |
| 1 kVDC      | 100        | ±10                       | 6.0              | 4.5          | ECKA3A101KRP            | 5.0              | 0.60 | ECKN3A101KRP            | NO         | 5.0              | 0.60 |
|             | 120        | ±10                       | 6.0              | 4.5          | ECKA3A121KRP            | 5.0              | 0.60 | ECKN3A121KRP            | NO         | 5.0              | 0.60 |
|             | 150        | ±10                       | 6.0              | 4.5          | ECKA3A151KRP            | 5.0              | 0.60 | ECKN3A151KRP            | NO         | 5.0              | 0.60 |
|             | 180        | ±10                       | 6.0              | 4.5          | ECKA3A181KRP            | 5.0              | 0.60 | ECKN3A181KRP            | NO         | 5.0              | 0.60 |
|             | 220        | ±10                       | 6.0              | 4.5          | ECKA3A221KRP            | 5.0              | 0.60 | ECKN3A221KRP            | NO         | 5.0              | 0.60 |
|             | 270        | ±10                       | 6.0              | 4.5          | ECKA3A271KRP            | 5.0              | 0.60 | ECKN3A271KRP            | NO         | 5.0              | 0.60 |
|             | 330        | ±10                       | 6.0              | 4.5          | ECKA3A331KRP            | 5.0              | 0.60 | ECKN3A331KRP            | NO         | 5.0              | 0.60 |
|             | 390        | ±10                       | 7.0              | 4.5          | ECKA3A391KRP            | 5.0              | 0.60 | ECKN3A391KRP            | NO         | 5.0              | 0.60 |
|             | 470        | ±10                       | 7.0              | 4.5          | ECKA3A471KRP            | 5.0              | 0.60 | ECKN3A471KRP            | NO         | 5.0              | 0.60 |
|             | 560        | ±10                       | 7.0              | 4.5          | ECKA3A561KRP            | 5.0              | 0.60 | ECKN3A561KRP            | NO         | 5.0              | 0.60 |
|             | 680        | ±10                       | 7.5              | 4.5          | ECKA3A681KRP            | 5.0              | 0.60 | ECKN3A681KRP            | NO         | 5.0              | 0.60 |
|             | 820        | ±10                       | 7.5              | 4.5          | ECKA3A821KRP            | 5.0              | 0.60 | ECKN3A821KRP            | NO         | 5.0              | 0.60 |
|             | 1000       | ±10                       | 9.0              | 4.5          | ECKA3A102KRP            | 5.0              | 0.60 | ECKN3A102KRP            | NO         | 5.0              | 0.60 |
|             | 1200       | ±10                       | 9.0              | 4.5          | ECKA3A122KRP            | 5.0              | 0.60 | ECKN3A122KRP            | NO         | 5.0              | 0.60 |
|             | 1500       | ±10                       | 10.5             | 4.5          | ECKA3A152KRP            | 5.0              | 0.60 | ECKN3A152KRP            | NO         | 5.0              | 0.60 |
|             | 1800       | ±10                       | 10.5             | 4.5          | ECKA3A182KRP            | 5.0              | 0.60 | ECKN3A182KRP            | NO         | 5.0              | 0.60 |
|             | 2200       | ±10                       | 11.5             | 4.5          | ECKA3A222KRP            | 5.0              | 0.60 | ECKN3A222KRP            | NO         | 5.0              | 0.60 |
|             | 2700       | ±10                       | 13.0             | 4.5          | ECKA3A272KRP            | 7.5              | 0.65 | ECKN3A272KRP            | N1         | 7.5              | 0.65 |
|             | 3300       | ±10                       | 13.0             | 4.5          | ECKA3A332KRP            | 7.5              | 0.65 | ECKN3A332KRP            | N1         | 7.5              | 0.65 |
|             | 3900       | ±10                       | 14.0             | 4.5          | ECKA3A392KRP            | 7.5              | 0.65 | ECKN3A392KRP            | N1         | 7.5              | 0.65 |
| 4700        | ±10        | 16.5                      | 4.5              | ECKA3A472KRP | 7.5                     | 0.65             | —    | —                       | —          | —                |      |
| 2 kVDC      | 100        | ±10                       | 7.0              | 5.0          | ECKA3D101KRP            | 7.5              | 0.65 | ECKN3D101KRP            | N1         | 7.5              | 0.65 |
|             | 120        | ±10                       | 7.0              | 5.0          | ECKA3D121KRP            | 7.5              | 0.65 | ECKN3D121KRP            | N1         | 7.5              | 0.65 |
|             | 150        | ±10                       | 7.0              | 5.0          | ECKA3D151KRP            | 7.5              | 0.65 | ECKN3D151KRP            | N1         | 7.5              | 0.65 |
|             | 180        | ±10                       | 7.0              | 5.0          | ECKA3D181KRP            | 7.5              | 0.65 | ECKN3D181KRP            | N1         | 7.5              | 0.65 |
|             | 220        | ±10                       | 7.0              | 5.0          | ECKA3D221KRP            | 7.5              | 0.65 | ECKN3D221KRP            | N1         | 7.5              | 0.65 |
|             | 270        | ±10                       | 7.0              | 5.0          | ECKA3D271KRP            | 7.5              | 0.65 | ECKN3D271KRP            | N1         | 7.5              | 0.65 |
|             | 330        | ±10                       | 7.5              | 5.0          | ECKA3D331KRP            | 7.5              | 0.65 | ECKN3D331KRP            | N1         | 7.5              | 0.65 |
|             | 390        | ±10                       | 7.5              | 5.0          | ECKA3D391KRP            | 7.5              | 0.65 | ECKN3D391KRP            | N1         | 7.5              | 0.65 |
|             | 470        | ±10                       | 9.0              | 5.0          | ECKA3D471KRP            | 7.5              | 0.65 | ECKN3D471KRP            | N1         | 7.5              | 0.65 |
|             | 560        | ±10                       | 9.0              | 5.0          | ECKA3D561KRP            | 7.5              | 0.65 | ECKN3D561KRP            | N1         | 7.5              | 0.65 |
|             | 680        | ±10                       | 10.0             | 5.0          | ECKA3D681KRP            | 7.5              | 0.65 | ECKN3D681KRP            | N1         | 7.5              | 0.65 |
|             | 820        | ±10                       | 10.0             | 5.0          | ECKA3D821KRP            | 7.5              | 0.65 | ECKN3D821KRP            | N1         | 7.5              | 0.65 |
|             | 1000       | ±10                       | 12.0             | 5.0          | ECKA3D102KRP            | 7.5              | 0.65 | ECKN3D102KRP            | N1         | 7.5              | 0.65 |
|             | 1200       | ±10                       | 12.0             | 5.0          | ECKA3D122KRP            | 7.5              | 0.65 | ECKN3D122KRP            | N1         | 7.5              | 0.65 |
|             | 1500       | ±10                       | 12.0             | 5.0          | ECKA3D152KRP            | 7.5              | 0.65 | ECKN3D152KRP            | N1         | 7.5              | 0.65 |
|             | 1800       | ±10                       | 14.0             | 5.0          | ECKA3D182KRP            | 10.0             | 0.65 | —                       | —          | —                | —    |
|             | 2200       | ±10                       | 16.0             | 5.0          | ECKA3D222KRP            | 10.0             | 0.65 | —                       | —          | —                | —    |
|             | 2700       | ±10                       | 16.0             | 5.0          | ECKA3D272KRP            | 10.0             | 0.65 | —                       | —          | —                | —    |
|             | 3300       | ±10                       | 19.0             | 5.0          | ECKA3D332KRP            | 10.0             | 0.65 | —                       | —          | —                | —    |
|             | 3900       | ±10                       | 20.0             | 5.0          | ECKA3D392KRP            | 10.0             | 0.65 | —                       | —          | —                | —    |
| 4700        | ±10        | 21.0                      | 5.0              | ECKA3D472KRP | 10.0                    | 0.65             | —    | —                       | —          | —                |      |



### ■ Ratings and Characteristics

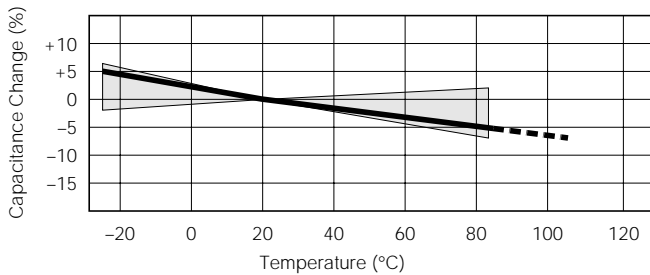
● Series KRP (Class 2, Temp. Char. R/Y5R, 1 to 3 kVDC) (Continuation)

| Rated Volt. | Cap. in pF | Capacitance Tolerance (%) | Dimensions in mm |              | Kinked Lead Type (Bulk) |                  |      | Kinked Lead Taping Type |            |                  |      |
|-------------|------------|---------------------------|------------------|--------------|-------------------------|------------------|------|-------------------------|------------|------------------|------|
|             |            |                           | D max.           | T max.       | Part Number             | Dimensions in mm |      | Part Number             | Taped Type | Dimensions in mm |      |
|             |            |                           |                  |              |                         | F                | d    |                         |            | F                | d    |
| 3 kVDC      | 100        | ±10                       | 7.5              | 5.5          | ECKA3F101KRP            | 7.5              | 0.65 | ECKN3F101KRP            | N1         | 7.5              | 0.65 |
|             | 120        | ±10                       | 7.5              | 5.5          | ECKA3F121KRP            | 7.5              | 0.65 | ECKN3F121KRP            | N1         | 7.5              | 0.65 |
|             | 150        | ±10                       | 7.5              | 5.5          | ECKA3F151KRP            | 7.5              | 0.65 | ECKN3F151KRP            | N1         | 7.5              | 0.65 |
|             | 180        | ±10                       | 7.5              | 5.5          | ECKA3F181KRP            | 7.5              | 0.65 | ECKN3F181KRP            | N1         | 7.5              | 0.65 |
|             | 220        | ±10                       | 8.0              | 5.5          | ECKA3F221KRP            | 7.5              | 0.65 | ECKN3F221KRP            | N1         | 7.5              | 0.65 |
|             | 270        | ±10                       | 8.0              | 5.5          | ECKA3F271KRP            | 7.5              | 0.65 | ECKN3F271KRP            | N1         | 7.5              | 0.65 |
|             | 330        | ±10                       | 8.5              | 5.5          | ECKA3F331KRP            | 7.5              | 0.65 | ECKN3F331KRP            | N1         | 7.5              | 0.65 |
|             | 390        | ±10                       | 9.5              | 5.5          | ECKA3F391KRP            | 7.5              | 0.65 | ECKN3F391KRP            | N1         | 7.5              | 0.65 |
|             | 470        | ±10                       | 9.5              | 5.5          | ECKA3F471KRP            | 7.5              | 0.65 | ECKN3F471KRP            | N1         | 7.5              | 0.65 |
|             | 560        | ±10                       | 10.5             | 5.5          | ECKA3F561KRP            | 7.5              | 0.65 | ECKN3F561KRP            | N1         | 7.5              | 0.65 |
|             | 680        | ±10                       | 10.5             | 5.5          | ECKA3F681KRP            | 7.5              | 0.65 | ECKN3F681KRP            | N1         | 7.5              | 0.65 |
|             | 820        | ±10                       | 12.5             | 5.5          | ECKA3F821KRP            | 7.5              | 0.65 | ECKN3F821KRP            | N1         | 7.5              | 0.65 |
|             | 1000       | ±10                       | 12.5             | 5.5          | ECKA3F102KRP            | 10.0             | 0.65 | ---                     | ---        | ---              | ---  |
|             | 1200       | ±10                       | 14.5             | 5.5          | ECKA3F122KRP            | 10.0             | 0.65 | ---                     | ---        | ---              | ---  |
|             | 1500       | ±10                       | 14.5             | 5.5          | ECKA3F152KRP            | 10.0             | 0.65 | ---                     | ---        | ---              | ---  |
|             | 1800       | ±10                       | 16.5             | 5.5          | ECKA3F182KRP            | 10.0             | 0.65 | ---                     | ---        | ---              | ---  |
| 2200        | ±10        | 17.0                      | 5.5              | ECKA3F222KRP | 10.0                    | 0.65             | ---  | ---                     | ---        | ---              |      |

### ■ Typical Temperature Characteristics

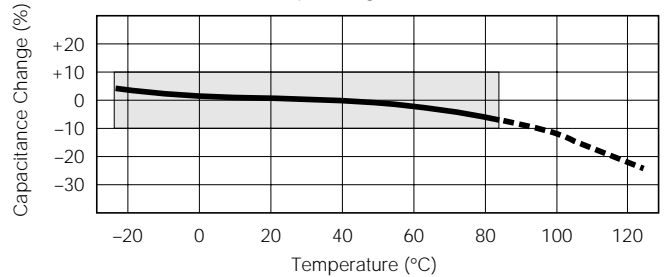
Series KGE (Char. SL/GP)

(Temp. Coeff. : +350 to -1000 ppm/°C)



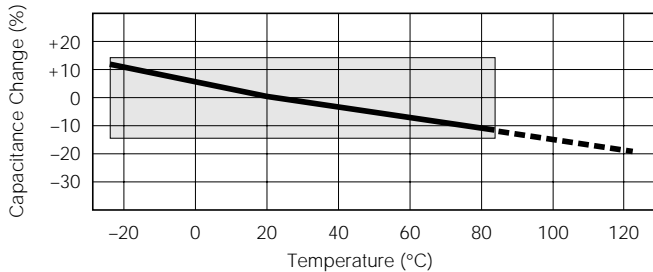
Series KBP (Char. B/Y5P)

(Temp. Range : -25 to 85 °C  
max. Cap. Change : ±10 %)

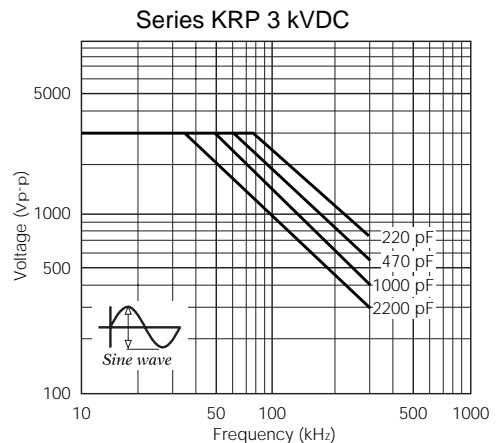
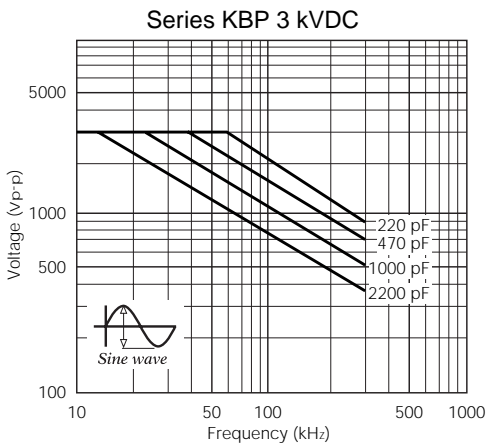
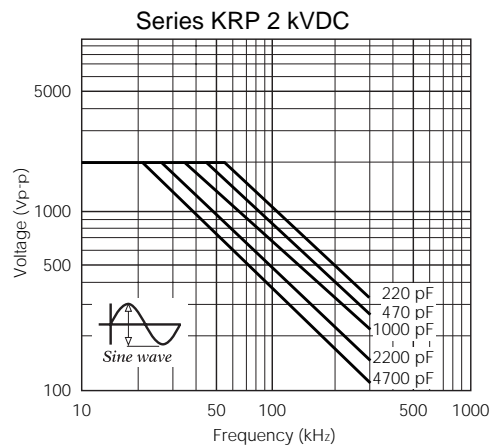
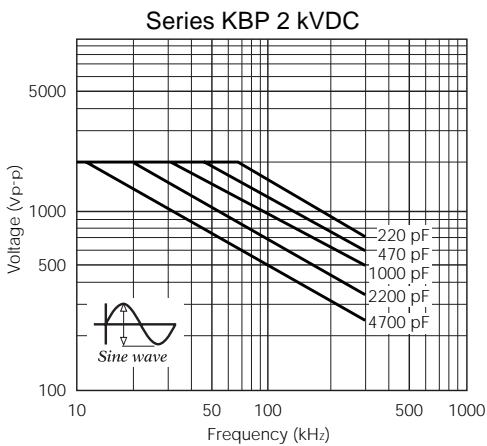
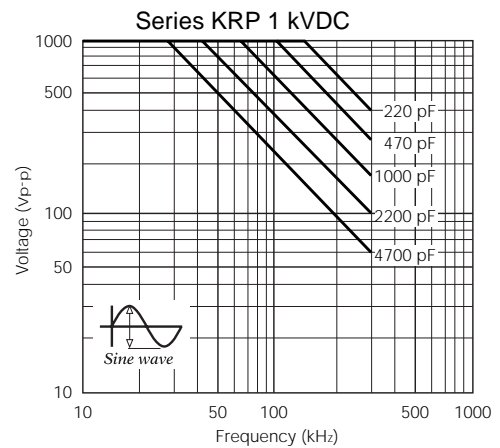
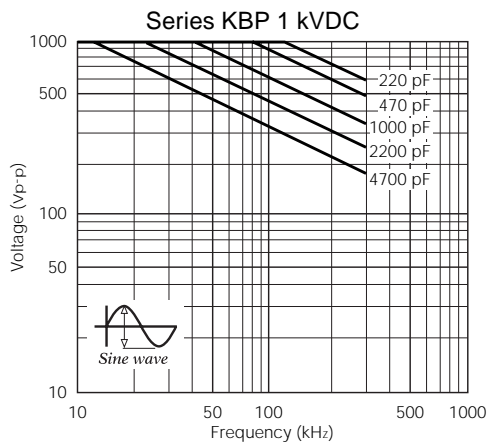


Series KRP (Char. R/Y5R)

(Temp. Range : -25 to 85 °C  
max. Cap. Change : ±15 %)



■ Characteristics of Voltage – Frequency



The graphs above show the maximum permissible voltage when using a capacitor with an AC sine wave voltage. When measuring this voltage in room temperature (25 °C), the capacitor self-heat generation will rise a maximum of 20 °C. When using a pulse voltage or an AC voltage other than a sine wave, confirm that the capacitor self-heat generation is less than 20 °C in an ambient room temperature of 25 °C. The self-heat generation temperature is the difference between the surface temperature and the ambient room temperature. As for the situation when the self-heat generation temperature is more than 25 °C, refer to the figure on the right.

Permission self generation of heat temperature vs. ambient temperature

