

High Voltage Ceramic Disc Capacitors,  
Rated 4 to 15 kVDC,  
Temp. Char. Y5T

Series: MDU



■ Features

- Wide products range of 4 to 15 kVDC
- Voltage stable type dielectric materials applied for high voltage application
- Flame-retardant insulating coating applied

■ Recommended Applications

- High voltage power supply
- High voltage circuit of TV and CRT display
- High voltage DC circuit

■ Explanation of Part Numbers

|              |   |   |       |               |   |                     |   |   |           |             |        |            |
|--------------|---|---|-------|---------------|---|---------------------|---|---|-----------|-------------|--------|------------|
| 1            | 2 | 3 | 4     | 5             | 6 | 7                   | 8 | 9 | 10        | 11          | 12     | (Examples) |
| E            | C | K | D     | 4             | A | 1                   | 0 | 2 | M         | D           | U      |            |
| Product Code |   |   | Style | Rated Voltage |   | Nominal Capacitance |   |   | Cap. Tol. | Temp. Char. | Suffix |            |

■ Specifications

|                                  |                                                                                |
|----------------------------------|--------------------------------------------------------------------------------|
| Characteristics                  | Specifications                                                                 |
| Operating Temperature Range      | −25 to 85 °C                                                                   |
| Rated Voltage                    | 4 kVDC to 15 kVDC                                                              |
| Dielectric Withstanding Voltage* | 150 % of the rated voltage for 1 to 5 seconds                                  |
| Capacitance                      | Within tolerance, when measured at 1 kHz±20 %, 1 to 5 Vrms, and 20 °C          |
| Dissipation Factor (tan δ)       | 0.025 max. at 1 kHz±20 %, 1 to 5 Vrms, and 20 °C                               |
| Insulation Resistance            | 10000 MΩ min. at 500 VDC and 1 minute electrification                          |
| Temperature Characteristics      | Capacitance Change: +20, −30 % max. over the temperature range of −25 to 85 °C |

\* Dielectric Withstanding Voltage test for the rated voltage of 6 kVDC and above shall be conducted in insulating oil.

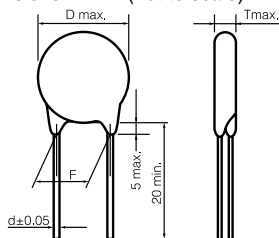
■ Precautions for Handling

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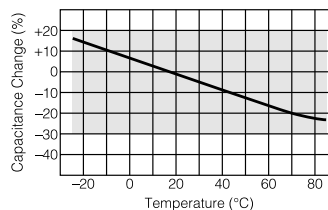
■ Packaging Informations

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### ■ Dimensions in mm (not to scale)



### ■ Typical Temperature Characteristics



### ■ Ratings and Characteristics

| Rated Voltage | Part Number  | Capacitance       |               | Dimensions in mm |        |          |      |
|---------------|--------------|-------------------|---------------|------------------|--------|----------|------|
|               |              | Nominal Cap. (pF) | Tolerance (%) | D max.           | T max. | F        | d    |
| 4 kVDC        | ECKD3G101MDU | 100               | ±20           | 7.0              | 7.0    | 7.5±2.0  | 0.65 |
|               | ECKD3G151MDU | 150               | ±20           | 7.0              | 7.0    | 7.5±2.0  | 0.65 |
|               | ECKD3G221MDU | 220               | ±20           | 7.0              | 7.0    | 7.5±2.0  | 0.65 |
|               | ECKD3G331MDU | 330               | ±20           | 8.0              | 7.0    | 7.5±2.0  | 0.65 |
|               | ECKD3G471MDU | 470               | ±20           | 8.5              | 7.0    | 7.5±2.0  | 0.65 |
|               | ECKD3G681MDU | 680               | ±20           | 9.5              | 7.0    | 10.0±2.0 | 0.65 |
|               | ECKD3G102MDU | 1000              | ±20           | 11.5             | 7.0    | 10.0±2.0 | 0.65 |
|               | ECKD3G152MDU | 1500              | ±20           | 13.5             | 7.0    | 10.0±2.0 | 0.65 |
| 6 kVDC        | ECKD3G222MDU | 2200              | ±20           | 16.0             | 7.0    | 10.0±2.0 | 0.65 |
|               | ECKD3J101MDU | 100               | ±20           | 8.0              | 8.0    | 10.0±2.0 | 0.65 |
|               | ECKD3J151MDU | 150               | ±20           | 8.0              | 8.0    | 10.0±2.0 | 0.65 |
|               | ECKD3J221MDU | 220               | ±20           | 8.0              | 8.0    | 10.0±2.0 | 0.65 |
|               | ECKD3J331MDU | 330               | ±20           | 10.5             | 8.0    | 10.0±2.0 | 0.80 |
|               | ECKD3J471MDU | 470               | ±20           | 11.5             | 8.0    | 10.0±2.0 | 0.80 |
|               | ECKD3J681MDU | 680               | ±20           | 13.0             | 8.0    | 10.0±2.0 | 0.80 |
|               | ECKD3J102MDU | 1000              | ±20           | 15.0             | 8.0    | 10.0±2.0 | 0.80 |
| 8 kVDC        | ECKD3J152MDU | 1500              | ±20           | 17.5             | 8.0    | 10.0±2.0 | 0.80 |
|               | ECKD3J222MDU | 2200              | ±20           | 21.5             | 8.0    | 10.0±2.0 | 0.80 |
|               | ECKD3K101MDU | 100               | ±20           | 8.0              | 9.0    | 10.0±2.0 | 0.65 |
|               | ECKD3K151MDU | 150               | ±20           | 8.0              | 9.0    | 10.0±2.0 | 0.65 |
|               | ECKD3K221MDU | 220               | ±20           | 8.5              | 9.0    | 10.0±2.0 | 0.65 |
|               | ECKD3K331MDU | 330               | ±20           | 10.0             | 9.0    | 10.0±2.0 | 0.65 |
|               | ECKD3K471MDU | 470               | ±20           | 11.5             | 9.0    | 10.0±2.0 | 0.80 |
|               | ECKD3K681MDU | 680               | ±20           | 13.5             | 9.0    | 10.0±2.0 | 0.80 |
| 10 kVDC       | ECKD3K102MDU | 1000              | ±20           | 16.5             | 9.0    | 10.0±2.0 | 0.80 |
|               | ECKD3K152MDU | 1500              | ±20           | 18.5             | 9.0    | 10.0±2.0 | 0.80 |
|               | ECKD4A101MDU | 100               | ±20           | 8.0              | 9.0    | 10.0±2.0 | 0.65 |
|               | ECKD4A151MDU | 150               | ±20           | 8.5              | 9.0    | 10.0±2.0 | 0.65 |
|               | ECKD4A221MDU | 220               | ±20           | 9.5              | 9.0    | 10.0±2.0 | 0.65 |
|               | ECKD4A331MDU | 330               | ±20           | 11.5             | 9.0    | 10.0±2.0 | 0.80 |
|               | ECKD4A471MDU | 470               | ±20           | 13.0             | 9.0    | 10.0±2.0 | 0.80 |
|               | ECKD4A681MDU | 680               | ±20           | 15.0             | 9.0    | 10.0±2.0 | 0.80 |
| 15 kVDC       | ECKD4A102MDU | 1000              | ±20           | 16.5             | 9.0    | 10.0±2.0 | 0.80 |
|               | ECKD4C101MDU | 100               | ±20           | 8.0              | 10.0   | 10.0±2.0 | 0.65 |
|               | ECKD4C151MDU | 150               | ±20           | 9.0              | 10.0   | 10.0±2.0 | 0.65 |
|               | ECKD4C221MDU | 220               | ±20           | 10.0             | 10.0   | 10.0±2.0 | 0.65 |
|               | ECKD4C331MDU | 330               | ±20           | 11.5             | 10.0   | 10.0±2.0 | 0.80 |
|               | ECKD4C471MDU | 470               | ±20           | 13.5             | 10.0   | 10.0±2.0 | 0.80 |
|               | ECKD4C681MDU | 680               | ±20           | 15.0             | 10.0   | 12.5±2.0 | 0.80 |
|               | ECKD4C102MDU | 1000              | ±20           | 19.0             | 10.0   | 12.5±2.0 | 0.80 |