

# VD Series

## Features

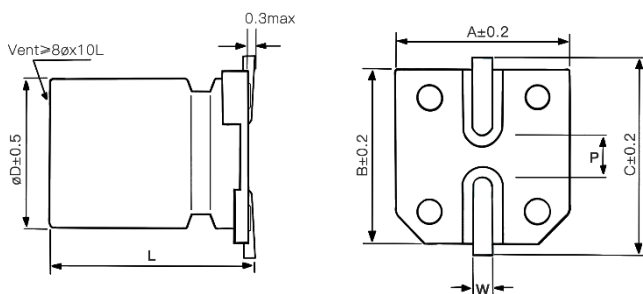
- Endurance : 105°C 5000H
- Designed for High Voltage
- Designed for reflow soldering
- Designed for surface mounting on high-density PCB
- RoHS 2.0 compliant
- 219 SVHC & REACH compliant



Marking color: Black

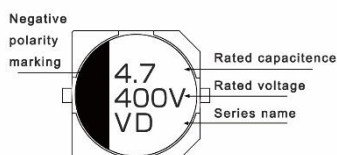
| Specifications                                 |  |                                     |       |                           |              |
|--|--|-------------------------------------|-------|---------------------------|--------------|
| Category temp. range                           | -40°C to +105°C  |                                     |       |                           |              |
| Capacitance tolerance                          | ±20% (120 Hz / +20 °C)   |                                     |       |                           |              |
| Leakage current                                | $I \leq 0.04 CV + 100\mu A$ , after 5 minutes  |                                     |       |                           |              |
| Tan $\delta$                                   | Please see the attached characteristics list   |                                     |       |                           |              |
| Characteristics at low temperature             | Rated voltage (V)  | 400                                 |       | Impedance ratio at 120 Hz |              |
|  | Z (-25 °C) / Z (+20 °C)  | 6                                   |       |                           |              |
|  | Z (-40 °C) / Z (+20 °C)  | 10                                  |       |                           |              |
| Endurance                                      | After applying rated working voltage for 5000 hours at +105 °C ± 2 °C, and then being stabilized at +20 °C, capacitors shall meet the following limits.          |                                     |       |                           |              |
|  | Capacitance change   | Within ±30% of the initial value    |       |                           |              |
|  | Dissipation factor (tan $\delta$ )   | Less than 300% of the initial value |       |                           |              |
|  | Leakage current  | Within the initial limit            |       |                           |              |
| Shelf life                                     | After storage for 1000 h at +105 °C ± 2 °C with no voltage applied and then being stabilized at +20 °C, capacitors shall meet the limits specified in endurance. |                                     |       |                           |              |
| Resistance to soldering heat                   | After reflow soldering and then being stabilized at +20 °C, capacitors shall meet the following limits.  |                                     |       |                           |              |
|  | Capacitance change   | Within ±10% of the initial value    |       |                           |              |
|  | Dissipation factor (tan $\delta$ )   | Within the initial limit            |       |                           |              |
| Frequency correction factor for ripple current | Frequency  | 50Hz                                | 120Hz | 1kHz                      | 10kHz $\leq$ |
|  | Correction Factor  | 0.7                                 | 1.0   | 1.3                       | 1.4          |

## Dimensions:



| Dimensions |            |      |      |      |         | Unit: mm |
|------------|------------|------|------|------|---------|----------|
| $\phi D$   | L          | A    | B    | C    | W       | P ± 0.2  |
| 8          | 10.5 ± 0.5 | 8.3  | 8.3  | 9.2  | 0.7~1.2 | 3.1      |
| 8          | 13 ± 0.5   | 8.3  | 8.3  | 9.2  | 0.7~1.2 | 3.1      |
| 10         | 10.5 ± 0.5 | 10.3 | 10.3 | 11.2 | 0.7~1.2 | 4.4      |
| 10         | 13 ± 0.5   | 10.3 | 10.3 | 11.2 | 0.7~1.2 | 4.4      |

## Marking:



## Part Number System:

|             |               |             |                       |                 |
|-------------|---------------|-------------|-----------------------|-----------------|
| VD series   | 400V          | 4.7 $\mu$ F | ± 20 %                | 8 $\phi$ X10.5L |
| <b>VD</b>   | <b>2G</b>     | <b>4R7</b>  | <b>M</b>              | <b>0810</b>     |
| Series name | Rated voltage | Capacitance | Capacitance tolerance | Case Size       |

**Characteristics list**

| Rated voltage (V) | Capacitance (±20%) (μF) | Case size |        | Specification                              |                    | Part Number <sup>③</sup> | Taping&Reel    |
|-------------------|-------------------------|-----------|--------|--|--------------------|--------------------------|----------------|
|                   |                         | øD (mm)   | L (mm) | Rated ripple current <sup>①</sup> (mA rms) | tan δ <sup>②</sup> |                          | MPQ (pcs/reel) |
| 400               | 2.2                     | 8         | 10.5   | 15   | 0.25               | VD2G2R2M0810             | 500            |
|                   | 3.3                     | 8         | 10.5   | 20   | 0.25               | VD2G3R3M0810             | 500            |
|                   | 4.7                     | 8         | 10.5   | 25   | 0.25               | VD2G4R7M0810             | 500            |
|                   |                         |           | 13     | 30   | 0.25               | VD2G4R7M0813             | 400            |
|                   |                         |           | 10.5   | 30   | 0.25               | VD2G4R7M1010             | 500            |
|                   | 5.6                     | 8         | 13     | 35   | 0.25               | VD2G5R6M0813             | 400            |
|                   |                         |           | 10.5   | 35   | 0.25               | VD2G5R6M1010             | 500            |
|                   | 6.8                     | 10        | 10.5   | 45   | 0.25               | VD2G6R8M1010             | 500            |
|                   | 8.2                     | 10        | 13     | 55   | 0.25               | VD2G8R2M1013             | 400            |
| 10                | 10                      | 13        | 60     | 0.25                                       | VD2G100M1013       | 400                      |                |

① Rated ripple current (120Hz / +105°C)    ② tan δ (120Hz / +20°C)    ③ For plastic reel packaging, the Part Number is appended with "PR" at the end.

※ Please refer to the page of reflow conditions for reflow profile.

单击下面可查看定价，库存，交付和生命周期等信息

[>>NJS\(安远南佳盛\)](#)