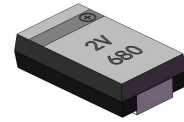


## Surface Mount Type

### SD Large Capacitance Series



#### Features

- High voltage (35V, max)
- High Capacitance (820, max)
- Excellent Ripple Absorption (8500 mA, max)
- RoHS & REACH Compliance, Halogen free

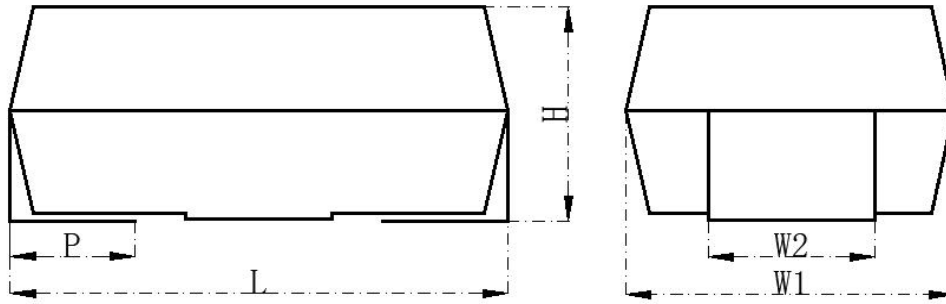
#### Main Applications

- AI Server
- Charger
- New Energy Vehicles

#### Specifications

| series                   | SD   |   |
|--------------------------|--|---|
| Operating Temp. Range    | -55°C~105°C  |   |
| Rated Voltage Range      | 2V~35V   |   |
| Rated Capacitance Range  | 10μF~820μF   |   |
| DC Leakage Current (LC)  | 2V~6.3V: ≤0.1CV, 10V~35V: ≤0.3CV (Rated Voltage, 2minutes) |   |
| Capacitance Tolerance    | K(-10%~+10%), M(-20%~+20%), Y(-35%~+10%) or customized     |   |
| Dissipation Factor (tgδ) | ≤ 0.06 (Frequency: 120Hz, Temp.:20°C)                      |   |
| Surge Voltage (V)        | 2V~16V:1.25*VR, 20V~25V:1.15*VR,35V:1.05*VR (15°C~35°C)    |   |
| Endurance                | Temp.: <b>105</b> ±3°C                                     | Appearance: No macroscopi damage  |
|                          | Applied Voltage: Rated Voltage(DC)                         | Capacitance Change: -20%~+20% of initial value  |
|                          | Test time: 2000h   | Dissipation Factor (tgδ): ≤0.12   |
|                          | Stabilizing time: 1~2h                                     | Leakage Current: ≤specified value   |
| Damp heat, Steady state  | Temp.: <b>60</b> ±2°C                                      | Appearance: No macroscopi damage  |
|                          | Humidity: <b>90</b> <sup>+2</sup> <sub>-3</sub> %RH        | Capacitance Change: -20%~+60% of initial value (4V~35V), -20%~+70% of initial value (2V~2.5V) |
|                          | No load, Test time: 500h                                   | Dissipation Factor (tgδ): ≤0.12   |
|                          | Stabilizing time: 1~2h                                     | Leakage Current: ≤300% of specified value   |

### Product Size



| Series | L (mm)±0.4 | W1 (mm)±0.3 | H (mm)±0.2 | P (mm)±0.2 | W2 (mm)±0.1 |
|--------|------------|-------------|------------|------------|-------------|
| SD     | 7.3        | 4.3         | 2.8        | 1.3        | 2.4         |

### Characteristics List

| Product Part No. | Rated Voltage (V) | Capacitance (μF)<br>*1 | D.F.<br>*2 | ESR (mΩ)<br>*3 | R.C. (mA)<br>*4 | L.C. (μA)<br>*5 |
|------------------|-------------------|------------------------|------------|----------------|-----------------|-----------------|
| SD0D561MR009A0   | 2                 | 560                    | 0.06       | 9              | 6300            | 112             |
| SD0D681MR006A0   |                   | 680                    | 0.06       | 6              | 7500            | 136             |
| SD0D821MR4R5A0   |                   | 820                    | 0.06       | 4.5            | 8500            | 164             |
| SD0E561MR009A0   | 2.5               | 560                    | 0.06       | 9              | 6300            | 140             |
| SD0E681MR006A0   |                   | 680                    | 0.06       | 6              | 7500            | 170             |
| SD0E821MR4R5A0   |                   | 820                    | 0.06       | 4.5            | 8500            | 205             |
| SD0J331MR012A0   | 6.3               | 330                    | 0.06       | 12             | 5600            | 207.9           |
| SD0J471MR009A0   |                   | 470                    | 0.06       | 9              | 6300            | 296.1           |
| SD1A221MR018A0   | 10                | 220                    | 0.06       | 18             | 4800            | 660             |
| SD1A331MR015A0   |                   | 330                    | 0.06       | 15             | 5100            | 990             |
| SD1B221MR030A0   | 12.5              | 220                    | 0.06       | 30             | 3500            | 825             |
| SD1C221MR030A0   | 16                | 220                    | 0.06       | 30             | 3500            | 1056            |
| SD1D820MR060A0   | 20                | 82                     | 0.06       | 60             | 1400            | 492             |
| SD1D101MR060A0   |                   | 100                    | 0.06       | 60             | 1400            | 600             |
| SD1E680MR060A0   | 25                | 68                     | 0.06       | 60             | 1400            | 510             |
| SD1E820MR060A0   | 25                | 82                     | 0.06       | 60             | 1400            | 615             |
| SD1V100MR080A0   | 35                | 10                     | 0.06       | 80             | 1200            | 105             |

Note:

\*1: 120Hz, +20±1°C

\*2: 120Hz, +20±1°C

\*3: 100KHz, +20±1°C

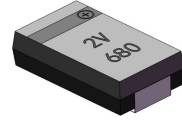
\*4: 100KHz, +45±1°C

\*5: Rated Voltage, 2 minutes

### Temperature Coefficient for Ripple Current

| Products  | T ≤ 45°C | 45°C < T ≤ 85°C | 85°C < T ≤ 105°C | Products  |
|-----------|----------|-----------------|------------------|-----------|
| 2 V~6.3 V | 1.0      | 0.7             | 0.25             | 2 V~6.3 V |
| 10 V~35 V | 1.0      | 0.8             | 0.5              | 10 V~35 V |

## 表面贴装型 SD大容量系列



### 产品特点

- 高电压 (35V, max)
- 大容量 (820  $\mu$ F, max)
- 耐纹波电流能力好 (8500mA, max)
- 环保 (符合无卤、RoHS和REACH规定)

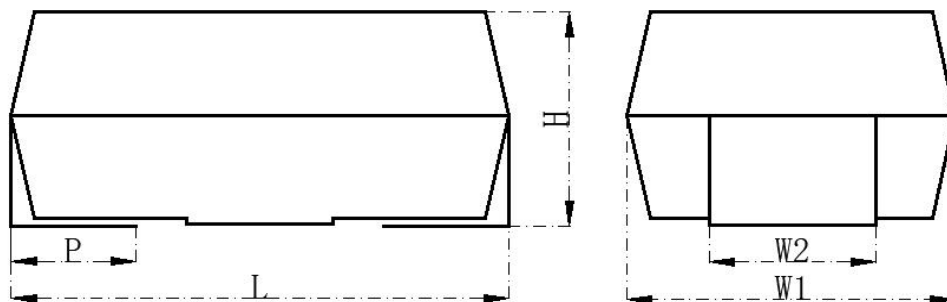
### 产品应用

- AI服务器
- 充电器
- 新能源汽车

### 产品规格

| 系列                              | SD  |   |
|---------------------------------|---|---|
| 类别温度                            | -55 $^{\circ}$ C~105 $^{\circ}$ C   |   |
| 额定电压                            | 2V~35V  |   |
| 静电容量范围 (120Hz, 20 $^{\circ}$ C) | 10 $\mu$ F~820 $\mu$ F  |   |
| 漏电流 (LC)                        | 2V~6.3V: $\leq 0.1CV$ , 10V~35V: $\leq 0.3CV$ (额定电压, 2分钟)                         |   |
| 静电容量容差                          | K档(-10%~+10%), M档(-20%~+20%), Y档(-35%~+10%) 或定制其他档位                               |   |
| 损耗角正切 (tg $\delta$ )            | $\leq 0.06$ (频率: 120Hz, 温度: 20 $^{\circ}$ C)                                      |   |
| 浪涌电压 (V)                        | 2V~16V: 1.25*VR, 20V~25V: 1.15*VR, 35V: 1.05*VR (15 $^{\circ}$ C~35 $^{\circ}$ C) |   |
| 耐久性                             | 温度: 105 $\pm 3^{\circ}$ C   | 外观: 无明显损伤   |
|                                 | 施加电压: 额定电压(DC)  | 容量变化: 初始值的-20%~+20%                                   |
|                                 | 测试时间: 2000h   | 损耗角正切 (tg $\delta$ ): $\leq 0.12$                     |
|                                 | 恢复时间: 1~2h  | 漏电流: $\leq$ 规定值                                       |
| 高温高湿                            | 温度: 60 $\pm 2^{\circ}$ C  | 外观: 无明显损伤   |
|                                 | 湿度: 90 $\begin{matrix} +2 \\ -3 \end{matrix}$ %RH                                 | 容量变化: 初始值的-20%~+70% (2V~2.5V), 初始值的-20%~+60% (4V~35V) |
|                                 | 空载, 测试时间: 500h  | 损耗角正切(tg $\delta$ ): $\leq 0.12$                      |
|                                 | 恢复时间: 1~2h  | 漏电流: $\leq$ 规定值的300%                                  |

产品尺寸



| 系列 | L (mm)±0.4 | W1 (mm)±0.3 | H (mm)±0.2 | P (mm)±0.2 | W2 (mm)±0.1 |
|----|------------|-------------|------------|------------|-------------|
| SD | 7.3        | 4.3         | 2.8        | 1.3        | 2.4         |

特性一览表

| 产品编号           | 额定电压 (V) | 容量 (μF)<br>*1 | 损耗<br>*2 | ESR (mΩ)<br>*3 | 纹波电流 (mA)<br>*4 | 漏电流 (μA)<br>*5 |
|----------------|----------|---------------|----------|----------------|-----------------|----------------|
| SD0D561MR009A0 | 2        | 560           | 0.06     | 9              | 6300            | 112            |
| SD0D681MR006A0 |          | 680           | 0.06     | 6              | 7500            | 136            |
| SD0D821MR4R5A0 |          | 820           | 0.06     | 4.5            | 8500            | 164            |
| SD0E561MR009A0 | 2.5      | 560           | 0.06     | 9              | 6300            | 140            |
| SD0E681MR006A0 |          | 680           | 0.06     | 6              | 7500            | 170            |
| SD0E821MR4R5A0 |          | 820           | 0.06     | 4.5            | 8500            | 205            |
| SD0J331MR012A0 | 6.3      | 330           | 0.06     | 12             | 5600            | 207.9          |
| SD0J471MR009A0 |          | 470           | 0.06     | 9              | 6300            | 296.1          |
| SD1A221MR018A0 | 10       | 220           | 0.06     | 18             | 4800            | 660            |
| SD1A331MR015A0 |          | 330           | 0.06     | 15             | 5100            | 990            |
| SD1B221MR030A0 | 12.5     | 220           | 0.06     | 30             | 3500            | 825            |
| SD1C221MR030A0 | 16       | 220           | 0.06     | 30             | 3500            | 1056           |
| SD1D820MR060A0 | 20       | 82            | 0.06     | 60             | 1400            | 492            |
| SD1D101MR060A0 |          | 100           | 0.06     | 60             | 1400            | 600            |
| SD1E680MR060A0 | 25       | 68            | 0.06     | 60             | 1400            | 510            |
| SD1E820MR060A0 | 25       | 82            | 0.06     | 60             | 1400            | 615            |
| SD1V100MR080A0 | 35       | 10            | 0.06     | 80             | 1200            | 105            |

备注:

\*1: 120Hz, +20±1°C

\*2: 120Hz, +20±1°C

\*3: 100KHz, +20±1°C

\*4: 100KHz, +45±1°C

\*5: 额定电压, 2分钟

纹波电流温度系数

| 产品        | T≤45°C | 45°C<T≤85°C | 85°C<T≤105°C | 产品        |
|-----------|--------|-------------|--------------|-----------|
| 2 V~6.3 V | 1.0    | 0.7         | 0.25         | 2 V~6.3 V |
| 10 V~35V  | 1.0    | 0.8         | 0.5          | 10 V~35 V |