

# XT series

## ■ 特性 Features

- 105°C2000H 标准品 105°C2000H standard
- 适用于高密度表面安装 Suitable for High-Density Surface Mounting
- 高稳定性和可靠性 High Stability and Reliability



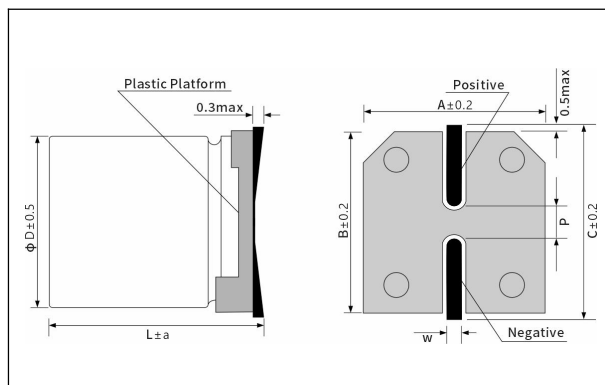
## ■ 仕様 Specifications

| 项目 Item                            | 条件 Condition                                                                                                                                   |                                                                                                                                | 性能 Performance                                                                            |      |      |      |      |      |      |      |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|------|------|------|------|------|------|------|
| 使用温度范围 Operating Temperature Range | -                                                                                                                                              |                                                                                                                                | -40°C~+105°C                                                                              |      |      |      |      |      |      |      |
| 额定电压范围 Rated Voltage Range         | -                                                                                                                                              |                                                                                                                                | 6.3~100V                                                                                  |      |      |      |      |      |      |      |
| 额定静容量范围 Rated Capacitance Range    | -                                                                                                                                              |                                                                                                                                | 1.0~1500μF                                                                                |      |      |      |      |      |      |      |
| 额定静容量容许差 Capacitance Tolerance     | 120Hz, 20°C                                                                                                                                    |                                                                                                                                | ±20%                                                                                      |      |      |      |      |      |      |      |
| 漏电流 Leakage current                | 施加额定电压 2 分钟后<br>After applying rated voltage for 2 minutes                                                                                     |                                                                                                                                | $I \leq 0.01CV$ 或 $3\mu A$ (以较大值为准)<br>$I \leq 0.01CV$ or $3\mu A$ (whichever is greater) |      |      |      |      |      |      |      |
| 额定电压 Rated Voltage(V)              | -                                                                                                                                              |                                                                                                                                | 6.3                                                                                       | 10   | 16   | 25   | 35   | 50   | 63   | 100  |
| 损失角正切值 Dissipation Factor          | 120Hz, 20°C<br>(Max.)                                                                                                                          | $\tan \delta$                                                                                                                  | 0.30                                                                                      | 0.24 | 0.20 | 0.16 | 0.14 | 0.14 | 0.14 | 0.14 |
|                                    |                                                                                                                                                | 对于超过 1000μF 的产品, 每增加 1000μF, 其值便随之增加 0.02<br>For products exceeding 1000μF, the value increases by 0.02 per additional 1000μF. |                                                                                           |      |      |      |      |      |      |      |
| 温度特性 Temperature Characteristics   | 阻抗率 Impedance Ratio(Max.)                                                                                                                      | $Z_{(-25^{\circ}C)}/Z_{(+20^{\circ}C)}$                                                                                        | 4                                                                                         | 3    | 2    | 2    | 2    | 2    | 2    | 3    |
|                                    |                                                                                                                                                | $Z_{(-40^{\circ}C)}/Z_{(+20^{\circ}C)}$                                                                                        | 10                                                                                        | 8    | 6    | 5    | 5    | 5    | 6    | 6    |
| 耐久性 Endurance                      | 在 105°C 下, 连续施加额定电压 2000 小时后, 满足以下项目<br>Under 105°C, apply rated voltage for 2000 hours, The capacitors shall meet the following requirements. |                                                                                                                                |                                                                                           |      |      |      |      |      |      |      |
|                                    | 静电容量变化率 Capacitance Change                                                                                                                     |                                                                                                                                | 初始值的 ±30% 以内<br>≤ ±30% of the initial value.                                              |      |      |      |      |      |      |      |
|                                    | 损失角正切值 Dissipation Factor                                                                                                                      |                                                                                                                                | 规格值 300% 以下<br>≤ 300% of initial specified value.                                         |      |      |      |      |      |      |      |
|                                    | 漏电流 Leakage Current                                                                                                                            |                                                                                                                                | 规格值以下<br>≤ Initial specified value.                                                       |      |      |      |      |      |      |      |

# XT series

## 尺寸图 Dimensions

(Unit: mm)

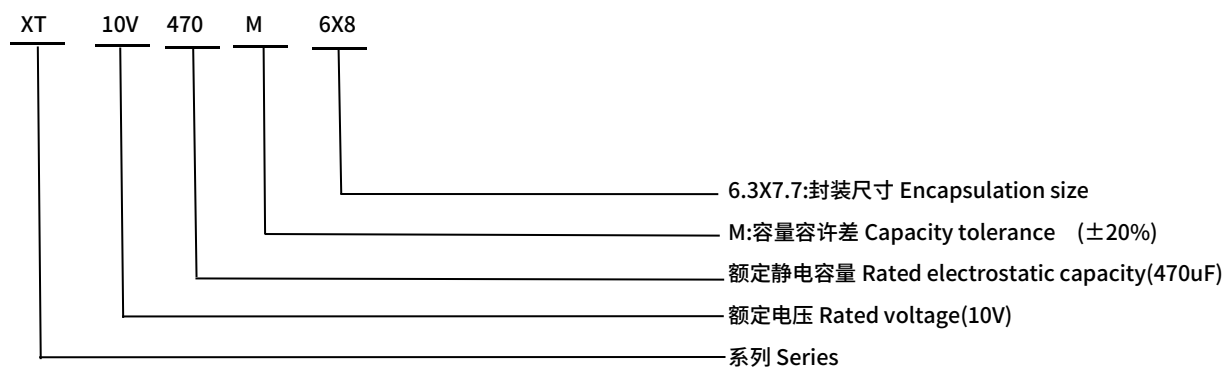


| D    | L    | A    | B    | C    | P   | $\alpha$  | W       |
|------|------|------|------|------|-----|-----------|---------|
| 4    | 5.4  | 4.3  | 4.3  | 5.0  | 1.0 | $\pm 0.5$ | 0.5-0.8 |
| 5    | 5.4  | 5.3  | 5.3  | 6.0  | 1.5 | $\pm 0.5$ | 0.5-0.8 |
| 6.3  | 5.4  | 6.6  | 6.6  | 7.2  | 2.1 | $\pm 0.5$ | 0.5-0.8 |
| 6.3  | 7.7  | 6.6  | 6.6  | 7.2  | 2.1 | $\pm 0.5$ | 0.5-0.8 |
| 8.0  | 10.5 | 8.3  | 8.3  | 9.1  | 3.1 | $\pm 0.5$ | 0.7-1.2 |
| 10.0 | 10.5 | 10.3 | 10.3 | 11.1 | 4.5 | $\pm 0.5$ | 0.7-1.2 |

## 纹波电流速查表 Ripple Current Quick Reference Table:

| 频率 Freq.        | 50Hz | 120Hz | 300Hz | 1kHz | 10kHz Up |
|-----------------|------|-------|-------|------|----------|
| 容值 Cap.         |      |       |       |      |          |
| 1~10 $\mu$ F    | 0.60 | 1.0   | 1.15  | 1.25 | 1.40     |
| 22~1500 $\mu$ F | 0.75 | 1.0   | 1.10  | 1.20 | 1.35     |

## 品号编码体系 Part Number Coding System (Example: 10V470 $\mu$ F)



注释: 型号中 R 表示小数点, 如 4R7 表示 4.7 $\mu$ F

Note: "R" in the model number denotes a decimal point (e.g., 4R7 = 4.7 $\mu$ F)

# XT series

## ■ 电气特性 Electrical characteristics

| 额定电压<br>Rated<br>Voltage(V) | 额定静容量<br>Rated<br>Capacitance(μF) | 铝壳尺寸<br>Case Size<br>Φ DXL(mm) | 漏电流<br>Leakage current<br>(μA,2min) | 额定纹波电流<br>Rated Ripple Current<br>(mA,105°C,120Hz) | 损失角<br>正切值<br>tan δ | 品号<br>Part Number |
|-----------------------------|-----------------------------------|--------------------------------|-------------------------------------|----------------------------------------------------|---------------------|-------------------|
| 6.3                         | 47                                | 4X5.4                          | 3                                   | 25                                                 | 0.3                 | XT6.3V47M4X5      |
|                             | 100                               | 5X5.4                          | 6.3                                 | 39                                                 | 0.3                 | XT6.3V100M5X5     |
|                             | 820                               | 8X10.5                         | 51.6                                | 230                                                | 0.3                 | XT6.3V820M8X10    |
|                             | 1000                              | 8X10.5                         | 63                                  | 230                                                | 0.3                 | XT6.3V1000M8X10   |
| 10                          | 47                                | 4X5.4                          | 4.7                                 | 25                                                 | 0.24                | XT10V47M4X5       |
|                             | 100                               | 5X5.4                          | 10                                  | 39                                                 | 0.24                | XT10V100M5X5      |
|                             | 220                               | 6.3X5.4                        | 22                                  | 85                                                 | 0.24                | XT10V220M6X5      |
|                             | 330                               | 6.3X7.7                        | 33                                  | 105                                                | 0.24                | XT10V330M6X8      |
|                             | 470                               | 6.3X7.7                        | 47                                  | 120                                                | 0.24                | XT10V470M6X8      |
|                             | 470                               | 8X6.5                          | 47                                  | 105                                                | 0.24                | XT10V470M8X6      |
|                             | 1000                              | 8X10.5                         | 100                                 | 230                                                | 0.24                | XT10V1000M8X10    |
| 16                          | 10                                | 4X5.4                          | 3                                   | 18                                                 | 0.2                 | XT16V10M4X5       |
|                             | 22                                | 4X5.4                          | 3.52                                | 20                                                 | 0.2                 | XT16V22M4X5       |
|                             | 33                                | 4X5.4                          | 5.28                                | 22                                                 | 0.2                 | XT16V33M4X5       |
|                             | 47                                | 5X5.4                          | 7.52                                | 31                                                 | 0.2                 | XT16V47M5X5       |
|                             | 100                               | 6.3X5.4                        | 16                                  | 60                                                 | 0.2                 | XT16V100M6X5      |
|                             | 100                               | 5X5.4                          | 16                                  | 39                                                 | 0.2                 | XT16V100M5X5      |
|                             | 220                               | 6.3X7.7                        | 35.2                                | 105                                                | 0.2                 | XT16V220M6X8      |
|                             | 220                               | 6.3X5.4                        | 35.2                                | 85                                                 | 0.2                 | XT16V220M6X5      |
|                             | 220                               | 8X6.5                          | 35.2                                | 85                                                 | 0.2                 | XT16V220M8X6      |
|                             | 330                               | 6.3X7.7                        | 52.8                                | 105                                                | 0.2                 | XT16V330M6X8      |
|                             | 470                               | 8X10.5                         | 75.2                                | 230                                                | 0.2                 | XT16V470M8X10     |
|                             | 470                               | 6.3X7.7                        | 75.2                                | 145                                                | 0.2                 | XT16V470M6X8      |
|                             | 1000                              | 10X10.5                        | 160                                 | 347                                                | 0.2                 | XT16V1000M10X10   |
| 25                          | 10                                | 4X5.4                          | 3                                   | 14                                                 | 0.16                | XT25V10M4X5       |
|                             | 22                                | 5X5.4                          | 5.5                                 | 25                                                 | 0.16                | XT25V22M5X5       |
|                             | 47                                | 5X5.4                          | 11.75                               | 31                                                 | 0.16                | XT25V47M5X5       |
|                             | 47                                | 6.3X5.4                        | 11.75                               | 48                                                 | 0.16                | XT25V47M6X5       |
|                             | 68                                | 6.3X5.4                        | 17                                  | 48                                                 | 0.16                | XT25V68M6X5       |
|                             | 100                               | 6.3X7.7                        | 25                                  | 65                                                 | 0.16                | XT25V100M6X8      |
|                             | 100                               | 6.3X5.4                        | 25                                  | 60                                                 | 0.16                | XT25V100M6X5      |
|                             | 220                               | 8X10.5                         | 55                                  | 175                                                | 0.16                | XT25V220M8X10     |
|                             | 220                               | 6.3X7.7                        | 55                                  | 105                                                | 0.16                | XT25V220M6X8      |

# XT series

| 额定电压<br>Rated<br>Voltage(V) | 额定静容量<br>Rated<br>Capacitance(μF) | 铝壳尺寸<br>Case Size<br>Φ DXL(mm) | 漏电流<br>Leakage current<br>(μA,2min) | 额定纹波电流<br>Rated Ripple Current<br>(mA,105°C,120Hz) | 损失角<br>正切值<br>tan δ | 品号<br>Part Number |
|-----------------------------|-----------------------------------|--------------------------------|-------------------------------------|----------------------------------------------------|---------------------|-------------------|
| 25                          | 330                               | 8X10.5                         | 82.5                                | 220                                                | 0.16                | XT25V330M8X10     |
|                             | 470                               | 8X10.5                         | 117.5                               | 230                                                | 0.16                | XT25V470M8X10     |
| 35                          | 10                                | 4X5.4                          | 3.5                                 | 14                                                 | 0.14                | XT35V10M4X5       |
|                             | 22                                | 5X5.4                          | 7.7                                 | 28                                                 | 0.14                | XT35V22M5X5       |
|                             | 33                                | 6.3X5.4                        | 11.55                               | 38                                                 | 0.14                | XT35V33M6X5       |
|                             | 33                                | 5X5.4                          | 11.55                               | 22                                                 | 0.14                | XT35V33M5X5       |
|                             | 47                                | 6.3X5.4                        | 16.4                                | 50                                                 | 0.14                | XT35V47M6X5       |
|                             | 47                                | 5X5.4                          | 16.45                               | 31                                                 | 0.14                | XT35V47M5X5       |
|                             | 100                               | 6.3X7.7                        | 35                                  | 84                                                 | 0.14                | XT35V100M6X8      |
|                             | 100                               | 6.3X5.4                        | 35                                  | 60                                                 | 0.14                | XT35V100M6X5      |
|                             | 100                               | 8X6.5                          | 35                                  | 70                                                 | 0.14                | XT35V100M8X6      |
|                             | 120                               | 6.3X7.7                        | 42                                  | 91                                                 | 0.14                | XT35V120M6X8      |
|                             | 150                               | 6.3X7.7                        | 52.5                                | 100                                                | 0.14                | XT35V150M6X8      |
|                             | 220                               | 8X10.5                         | 77                                  | 190                                                | 0.14                | XT35V220M8X10     |
|                             | 470                               | 10X10.5                        | 164.5                               | 286                                                | 0.14                | XT35V470M10X10    |
| 50                          | 1                                 | 4X5.4                          | 3                                   | 7                                                  | 0.14                | XT50V1M4X5        |
|                             | 2.2                               | 4X5.4                          | 3                                   | 11                                                 | 0.14                | XT50V2R2M4X5      |
|                             | 3.3                               | 4X5.4                          | 3                                   | 13                                                 | 0.14                | XT50V3R3M4X5      |
|                             | 4.7                               | 4X5.4                          | 3                                   | 13                                                 | 0.14                | XT50V4R7M4X5      |
|                             | 6.8                               | 5X5.4                          | 3.4                                 | 16                                                 | 0.14                | XT50V6R8M5X5      |
|                             | 10                                | 5X5.4                          | 5                                   | 21                                                 | 0.14                | XT50V10M5X5       |
|                             | 10                                | 6.3X5.4                        | 5                                   | 24                                                 | 0.14                | XT50V10M6X5       |
|                             | 22                                | 6.3X5.4                        | 11                                  | 42                                                 | 0.14                | XT50V22M6X5       |
|                             | 47                                | 6.3X7.7                        | 23.5                                | 63                                                 | 0.14                | XT50V47M6X8       |
|                             | 47                                | 6.3X5.4                        | 23.5                                | 50                                                 | 0.14                | XT50V47M6X5       |
|                             | 47                                | 8X6.5                          | 23.5                                | 48                                                 | 0.14                | XT50V47M8X6       |
|                             | 68                                | 8X6.5                          | 34                                  | 48                                                 | 0.14                | XT50V68M8X6       |
|                             | 100                               | 8X10.5                         | 50                                  | 140                                                | 0.14                | XT50V100M8X10     |
|                             | 100                               | 6.3X7.7                        | 50                                  | 80                                                 | 0.14                | XT50V100M6X8      |
|                             | 220                               | 10X10.5                        | 110                                 | 220                                                | 0.14                | XT50V220M10X10    |
|                             | 330                               | 10X10.5                        | 165                                 | 247                                                | 0.14                | XT50V330M10X10    |
| 63                          | 10                                | 6.3X5.4                        | 6.3                                 | 24                                                 | 0.14                | XT63V10M6X5       |
|                             | 22                                | 6.3X5.4                        | 13.86                               | 28                                                 | 0.14                | XT63V22M6X5       |
|                             | 22                                | 6.3X5.4                        | 13.86                               | 42                                                 | 0.14                | XT63V22M6X5       |
|                             | 22                                | 8X6.5                          | 13.8                                | 49                                                 | 0.14                | XT63V22M8X6       |

# XT series

| 额定电压<br>Rated<br>Voltage(V) | 额定静容量<br>Rated<br>Capacitance(μF) | 铝壳尺寸<br>Case Size<br>Φ DXL(mm) | 漏电流<br>Leakage current<br>(μA,2min) | 额定纹波电流<br>Rated Ripple Current<br>(mA,105°C,120Hz) | 损失角<br>正切值<br>tan δ | 品号<br>Part Number |
|-----------------------------|-----------------------------------|--------------------------------|-------------------------------------|----------------------------------------------------|---------------------|-------------------|
| 63                          | 47                                | 6.3X7.7                        | 29.61                               | 63                                                 | 0.14                | XT63V47M6X8       |
|                             | 100                               | 8X10.5                         | 63                                  | 140                                                | 0.14                | XT63V100M8X10     |
|                             | 100                               | 10X10.5                        | 63                                  | 200                                                | 0.14                | XT63V100M10X10    |
|                             | 220                               | 10X10.5                        | 138.6                               | 230                                                | 0.14                | XT63V220M10X10    |
| 100                         | 2.2                               | 5X5.4                          | 3                                   | 13                                                 | 0.14                | XT100V2.2M5X5     |
|                             | 4.7                               | 5X5.4                          | 4.7                                 | 16                                                 | 0.14                | XT100V4R7M5X5     |
|                             | 4.7                               | 6.3X5.4                        | 4.7                                 | 21                                                 | 0.14                | XT100V4R7M6X5     |
|                             | 10                                | 6.3X5.4                        | 10                                  | 24                                                 | 0.14                | XT100V10M6X5      |
|                             | 10                                | 6.3X7.7                        | 10                                  | 35                                                 | 0.14                | XT100V10M6X8      |
|                             | 22                                | 8X10.5                         | 22                                  | 84                                                 | 0.14                | XT100V22M8X10     |
|                             | 22                                | 6.3X7.7                        | 22                                  | 35                                                 | 0.14                | XT100V22M6X8      |
|                             | 47                                | 8X10.5                         | 47                                  | 119                                                | 0.14                | XT100V47M8X10     |