

YFX 系列  
SERIES

基板自立型105°C薄型品

105°C Low profile, Snap-in Terminal Type

## ◆特 长 / FEATURES

- 105°C、3000小时、高20mm品。  
Load Life : 105°C 3000 hours, with 20mm height
- RoHS指令对应品。  
RoHS compliance.



## ◆规格表 / SPECIFICATIONS

| 项 目 Items   | 特 性 Characteristics  |          |           |           |         |      |      |               |               |                                  |   |  |  |  |  |  |  |  |                                |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |
|---|--|----------|-----------|-----------|---------|------|------|---------------|---------------|----------------------------------|---|--|--|--|--|--|--|--|--------------------------------|--|--|--|--|--|--|--|--|-----------------------|---|--|--|--|--|--|--|--|
| 工 作 温 度 范 围 Category Temperature Range                              | -40 ~ +105°C   |          |           |           |         |      |      | -25 ~ +105°C  |               |                                  |   |  |  |  |  |  |  |  |                                |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |
| 额 定 电 压 范 围 Rated Voltage Range                                     | 10 ~ 100V.DC   |          |           |           |         |      |      | 160 ~ 450V.DC |               |                                  |   |  |  |  |  |  |  |  |                                |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |
| 静 电 容 量 允 许 差 Capacitance Tolerance                                 | $\pm 20\% (20^\circ\text{C}, 120\text{Hz})$  |          |           |           |         |      |      |               |               |                                  |   |  |  |  |  |  |  |  |                                |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |
| 漏 电 流 Leakage Current(MAX)  | $I = 3\sqrt{CV}$ (施加额定电压5分钟后)<br>$I = 3\sqrt{CV}$ (After 5 minutes application of rated voltage)<br>$I = \text{漏电流 } (\mu\text{A}) \quad C = \text{静电容量 } (\mu\text{F}) \quad V = \text{额定电压 } (V)$<br>Leakage Current Capacitance Rated Voltage   |          |           |           |         |      |      |               |               |                                  |   |  |  |  |  |  |  |  |                                |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |
| 损 失 角 正 切 值 (tanδ) Dissipation Factor(MAX)                          | 额定电压 (V)<br>Rated Voltage  | 10       | 16        | 25        | 35      | 50   | 63   | 80            | 100 160 ~ 450 |                                  |   |  |  |  |  |  |  |  |                                |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |
|   | tan δ  | 0.55     | 0.50      | 0.45      | 0.40    | 0.35 | 0.30 | 0.25          | 0.20 0.20     |                                  |   |  |  |  |  |  |  |  |                                |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |
| 耐 久 性 Endurance   | 在105°C环境中，不超过额定电压的范围内叠加额定纹波电流，连续加载3000小时后，满足以下各项要求。<br>After applying rated voltage with rated ripple current for 3000 hours at 105°C, the capacitors shall meet the following requirements.   |          |           |           |         |      |      |               |               |                                  |   |  |  |  |  |  |  |  |                                |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |
|   | <table border="1"> <tr> <td>静 电 容 量 变 化 率 Capacitance Change</td> <td colspan="8">初期值的<math>\pm 20\%</math>以内<br/>Within <math>\pm 20\%</math> of the initial value.</td> </tr> <tr> <td>损 失 角 正 切 值 Dissipation Factor</td> <td colspan="8">规格值的200%以下<br/>Not more than 200% of the specified value.</td> </tr> <tr> <td>漏 电 流 Leakage Current</td> <td colspan="8">规格值以下<br/>Not more than the specified value.</td> </tr> </table> |          |           |           |         |      |      |               |               | 静 电 容 量 变 化 率 Capacitance Change | 初期值的 $\pm 20\%$ 以内<br>Within $\pm 20\%$ of the initial value. |  |  |  |  |  |  |  | 损 失 角 正 切 值 Dissipation Factor | 规格值的200%以下<br>Not more than 200% of the specified value. |  |  |  |  |  |  |  | 漏 电 流 Leakage Current | 规格值以下<br>Not more than the specified value. |  |  |  |  |  |  |  |
| 静 电 容 量 变 化 率 Capacitance Change                                    | 初期值的 $\pm 20\%$ 以内<br>Within $\pm 20\%$ of the initial value.  |          |           |           |         |      |      |               |               |                                  |   |  |  |  |  |  |  |  |                                |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |
| 损 失 角 正 切 值 Dissipation Factor                                      | 规格值的200%以下<br>Not more than 200% of the specified value.   |          |           |           |         |      |      |               |               |                                  |   |  |  |  |  |  |  |  |                                |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |
| 漏 电 流 Leakage Current   | 规格值以下<br>Not more than the specified value.  |          |           |           |         |      |      |               |               |                                  |   |  |  |  |  |  |  |  |                                |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |
| 低 温 特 性 Low Temperature Stability<br>(阻抗比)<br>Impedance Ratio (MAX) | 额定电压 (V)<br>Rated Voltage  | 10 ~ 100 | 160 ~ 250 | 315 ~ 450 | (120Hz) |      |      |               |               |                                  |   |  |  |  |  |  |  |  |                                |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |
|   | Z(-25°C)/Z(20°C)   | 3        | 3         | 8         |         |      |      |               |               |                                  |   |  |  |  |  |  |  |  |                                |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |
|   | Z(-40°C)/Z(20°C)   | 12       | -         | -         |         |      |      |               |               |                                  |   |  |  |  |  |  |  |  |                                |  |  |  |  |  |  |  |  |                       |   |  |  |  |  |  |  |  |

## ◆纹波电流补正系数 / MULTIPLIER FOR RIPPLE CURRENT

| 频 率 (Hz)<br>Frequency | 60(50)      | 120  | 500  | 1k   | 10k≤ |
|-----------------------|-------------|------|------|------|------|
| 系 数<br>Coefficient    | 10 ~ 100WV  | 0.90 | 1.00 | 1.05 | 1.10 |
|                       | 160 ~ 250WV | 0.80 | 1.00 | 1.20 | 1.30 |
|                       | 315 ~ 450WV | 0.80 | 1.00 | 1.20 | 1.25 |

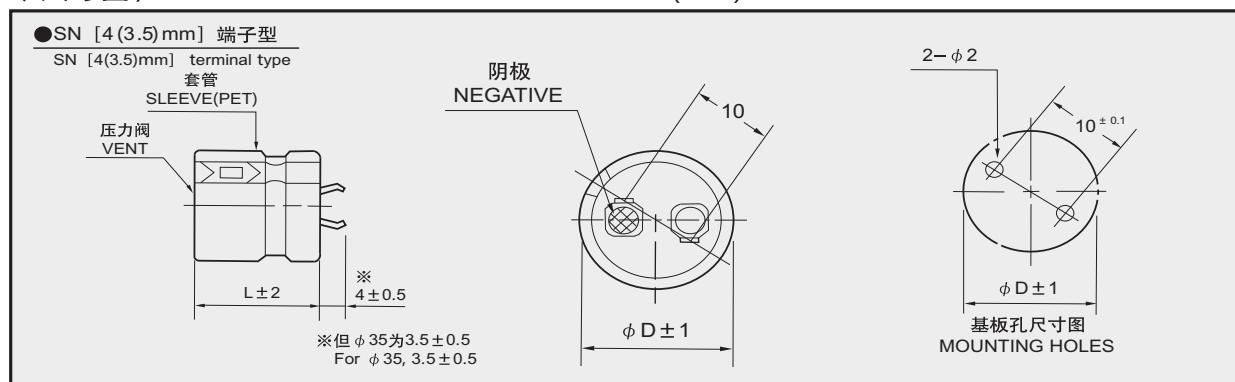
## ◆产品型号体系 / PART NUMBER

Z    YFX   —    M T  
 静电容量 Capacitance 系列名 Series 额定电压 Rated Voltage 直径尺寸  $\phi D$  高度尺寸 High size M 副记号 Option  
 Capacitance Tolerance

容量允许偏差  
Capacitance Tolerance

## ◆尺寸图 / DIMENSIONS

( mm )



## ◆标准品一览表/STANDARD SIZE

| V.DC<br>Cap(μF) | 10                  | 16                  | 25                  | 35                  | 50                  | 63                  | 80                  | 100                 |
|-----------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| 330             |                     |                     |                     |                     |                     |                     |                     | $20 \times 20$ 0.60 |
| 390             |                     |                     |                     |                     |                     |                     |                     | $20 \times 20$ 0.71 |
| 470             |                     |                     |                     |                     |                     |                     | $20 \times 20$ 0.65 | $22 \times 20$ 0.78 |
| 560             |                     |                     |                     |                     |                     |                     | $20 \times 20$ 0.70 | $25 \times 20$ 0.95 |
| 680             |                     |                     |                     |                     |                     | $20 \times 20$ 0.83 | $22 \times 20$ 0.84 | $25 \times 20$ 1.09 |
| 820             |                     |                     |                     |                     |                     | $22 \times 20$ 0.99 | $25 \times 20$ 1.04 | $30 \times 20$ 1.32 |
| 1000            |                     |                     |                     |                     | $20 \times 20$ 0.87 | $22 \times 20$ 1.10 | $25 \times 20$ 1.19 |                     |
| 1200            |                     |                     |                     |                     | $22 \times 20$ 1.02 | $25 \times 20$ 1.20 | $30 \times 20$ 1.44 |                     |
| 1500            |                     |                     |                     | $20 \times 20$ 0.80 | $25 \times 20$ 1.15 | $30 \times 20$ 1.47 |                     |                     |
| 1800            |                     |                     |                     | $22 \times 20$ 0.94 | $25 \times 20$ 1.34 | $30 \times 20$ 1.52 |                     |                     |
| 2200            |                     |                     | $20 \times 20$ 0.98 | $22 \times 20$ 1.04 | $30 \times 20$ 1.60 |                     |                     |                     |
| 2700            |                     |                     | $22 \times 20$ 1.08 | $25 \times 20$ 1.29 |                     |                     |                     |                     |
| 3300            |                     | $20 \times 20$ 1.06 | $22 \times 20$ 1.29 | $30 \times 20$ 1.45 |                     |                     |                     |                     |
| 3900            |                     | $20 \times 20$ 1.25 | $25 \times 20$ 1.58 |                     |                     |                     |                     |                     |
| 4700            | $20 \times 20$ 0.98 | $22 \times 20$ 1.38 | $25 \times 20$ 1.61 |                     |                     |                     |                     |                     |
| 5600            | $20 \times 20$ 1.16 | $25 \times 20$ 1.68 |                     |                     |                     |                     |                     |                     |
| 6800            | $22 \times 20$ 1.31 | $25 \times 20$ 1.80 |                     |                     |                     |                     |                     |                     |
| 8200            | $25 \times 20$ 1.59 |                     |                     |                     |                     |                     |                     |                     |
| 10000           | $25 \times 20$ 1.77 |                     |                     |                     |                     |                     |                     |                     |

| V.DC<br>Cap(μF) | 160                 | 180                 | 200                 | 220                 | 250                 | 315                 | 350                 | 385                 |
|-----------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| 39              |                     |                     |                     |                     |                     |                     |                     | $20 \times 20$ 0.35 |
| 47              |                     |                     |                     |                     |                     |                     | $20 \times 20$ 0.38 | $20 \times 20$ 0.38 |
| 56              |                     |                     |                     |                     |                     | $20 \times 20$ 0.41 | $20 \times 20$ 0.40 | $22 \times 20$ 0.42 |
| 68              |                     |                     |                     |                     |                     | $22 \times 20$ 0.48 | $22 \times 20$ 0.45 | $25 \times 20$ 0.50 |
| 82              |                     |                     |                     |                     |                     | $22 \times 20$ 0.51 | $25 \times 20$ 0.54 | $25 \times 20$ 0.52 |
| 100             |                     |                     |                     |                     |                     | $25 \times 20$ 0.57 | $25 \times 20$ 0.57 | $30 \times 20$ 0.61 |
| 120             |                     |                     |                     |                     | $20 \times 20$ 0.65 | $30 \times 20$ 0.65 | $30 \times 20$ 0.65 | $30 \times 20$ 0.64 |
| 150             |                     |                     |                     | $20 \times 20$ 0.70 | $22 \times 20$ 0.74 | $30 \times 20$ 0.70 | $35 \times 20$ 0.78 | $35 \times 20$ 0.80 |
| 180             |                     | $20 \times 20$ 0.80 | $20 \times 20$ 0.80 | $22 \times 20$ 0.80 | $22 \times 20$ 0.77 | $35 \times 20$ 0.85 | $35 \times 20$ 0.85 |                     |
| 220             | $20 \times 20$ 0.81 | $22 \times 20$ 0.90 | $22 \times 20$ 0.87 | $25 \times 20$ 0.85 | $25 \times 20$ 0.95 | $35 \times 20$ 0.90 |                     |                     |
| 270             | $22 \times 20$ 0.98 | $22 \times 20$ 0.95 | $25 \times 20$ 0.95 | $25 \times 20$ 1.02 | $30 \times 20$ 1.00 |                     |                     |                     |
| 330             | $25 \times 20$ 1.02 | $25 \times 20$ 1.15 | $25 \times 20$ 1.15 | $30 \times 20$ 1.12 | $30 \times 20$ 1.16 |                     |                     |                     |
| 390             | $25 \times 20$ 1.25 | $25 \times 20$ 1.20 | $30 \times 20$ 1.20 | $30 \times 20$ 1.25 | $35 \times 20$ 1.25 |                     |                     |                     |
| 470             | $30 \times 20$ 1.30 | $30 \times 20$ 1.36 | $30 \times 20$ 1.41 | $35 \times 20$ 1.45 |                     |                     |                     |                     |
| 560             | $30 \times 20$ 1.46 | $30 \times 20$ 1.43 | $35 \times 20$ 1.43 |                     |                     |                     |                     |                     |
| 680             | $35 \times 20$ 1.51 | $35 \times 20$ 1.51 |                     |                     |                     |                     |                     |                     |
| 820             | $35 \times 20$ 1.55 |                     |                     |                     |                     |                     |                     |                     |

| V.DC<br>Cap(μF) | 400                 | 420                 | 450                 |
|-----------------|---------------------|---------------------|---------------------|
| 39              |                     |                     | $20 \times 20$ 0.36 |
| 47              | $20 \times 20$ 0.39 | $20 \times 20$ 0.38 | $20 \times 20$ 0.41 |
| 56              | $20 \times 20$ 0.40 | $22 \times 20$ 0.45 | $22 \times 20$ 0.43 |
| 68              | $22 \times 20$ 0.49 | $22 \times 20$ 0.48 | $25 \times 20$ 0.50 |
| 82              | $25 \times 20$ 0.55 | $25 \times 20$ 0.53 | $25 \times 20$ 0.53 |
| 100             | $25 \times 20$ 0.60 | $30 \times 20$ 0.58 | $30 \times 20$ 0.61 |
| 120             | $30 \times 20$ 0.75 | $30 \times 20$ 0.70 | $30 \times 20$ 0.70 |
| 150             | $30 \times 20$ 0.80 | $35 \times 20$ 0.80 | $35 \times 20$ 0.80 |
| 180             | $35 \times 20$ 0.85 |                     |                     |

↑ 纹波电流 Ripple Current (A r.m.s./120Hz,105°C)  
铝壳尺寸 Case Size φ D × L(mm)