



双电层电容器 ELECTRIC DOUBLE LAYER CAPACITORS

FME

FME 系列
SERIES



- Double cells in series 串联双单体模组
- Lower leakage current 低漏电流
- Long lifetime with over 500,000 duty cycles 高达 500,000 次循环寿命
- Used in intelligent instrument, UPS, Security equipment,
Computer storage, Communications equipment, Taillight, Small appliances, Flashlight
应用于智能仪表、UPS、安防设备、计算机存储器、通信设备、车尾灯、小家电、手电筒
- 70°C 1500hours

SPECIFICATIONS 性能要求

| Item 项目 | Performance Characteristics 使用特性 | | | | |
|--|---|--|--|----------------|--|
| Operating Temperature Range 工作温度范围 | -40°C ~ +70°C (85°C) | | | | |
| Rated Voltage 额定电压 | 5.0V.DC (4.6V.DC) | | | | |
| Surge Voltage 浪涌电压 | 5.5V.DC | | | | |
| Capacitance Tolerance 容量偏差 | -20%~+50% | | | | |
| DC Leakage Current 漏电流(72h) | After 72 hours application of rated voltage at +25°C 在+25°C下施加额定电压 72 小时后 | | | | |
| Characteristics at High and Low Temperatures 高温及低温特性 | <table border="1"> <tr> <td>Capacitance range 容量偏差</td> <td>Within ±30% of the initial value. $\Delta C \leq$ 初始测量值的 30%</td> </tr> <tr> <td>ESR range 电阻偏差</td> <td>Less than 200% of the initial value. $\Delta ESR \leq$ 初始测量值的 200%</td> </tr> </table> | Capacitance range 容量偏差 | Within ±30% of the initial value. $\Delta C \leq$ 初始测量值的 30% | ESR range 电阻偏差 | Less than 200% of the initial value. $\Delta ESR \leq$ 初始测量值的 200% |
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| Shelf Life 贮存寿命 | <p>The specifications shall be met after storage at upper category temperature for 1500 hours 工作温度上限下无负荷贮存 1500 小时后电容器符合以下的限值</p> <table border="1"> <tr> <td>Capacitance range 容量偏差</td> <td>Within ±30% of the initial value. $\Delta C \leq$ 初始测量值的 30%</td> </tr> <tr> <td>ESR range 电阻偏差</td> <td>Less than 200% of the initial value. $\Delta ESR \leq$ 初始测量值的 200%</td> </tr> </table> | Capacitance range 容量偏差 | Within ±30% of the initial value. $\Delta C \leq$ 初始测量值的 30% | ESR range 电阻偏差 | Less than 200% of the initial value. $\Delta ESR \leq$ 初始测量值的 200% |
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| High Temperature Loaded 耐久性测试 | <p>The specifications shall be met after rated voltage applied at upper category temperature for 1500 hours 工作温度上限下负载额定电压 1500 小时后电容器符合以下的限定值</p> <table border="1"> <tr> <td>Capacitance range 容量偏差</td> <td>Within ±30% of the initial value. $\Delta C \leq$ 初始测量值的 30%</td> </tr> <tr> <td>ESR range 电阻偏差</td> <td>Less than 200% of the initial value. $\Delta ESR \leq$ 初始测量值的 200%</td> </tr> </table> | Capacitance range 容量偏差 | Within ±30% of the initial value. $\Delta C \leq$ 初始测量值的 30% | ESR range 电阻偏差 | Less than 200% of the initial value. $\Delta ESR \leq$ 初始测量值的 200% |
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| Cycle Life 循环寿命 | <p>The specifications shall be met after 500,000 cycles at 25°C, cycle of charge/discharge from V_R to $1/2V_R$ +25°C下以恒定电流使电容器在额定电压和半额定电压之间循环充放电 500,000 次</p> <table border="1"> <tr> <td>Capacitance range 容量偏差</td> <td>Within ±30% of the initial value. $\Delta C \leq$ 初始测量值的 30%</td> </tr> <tr> <td>ESR range 电阻偏差</td> <td>Less than 200% of the initial value. $\Delta ESR \leq$ 初始测量值的 200%</td> </tr> </table> | Capacitance range 容量偏差 | Within ±30% of the initial value. $\Delta C \leq$ 初始测量值的 30% | ESR range 电阻偏差 | Less than 200% of the initial value. $\Delta ESR \leq$ 初始测量值的 200% |
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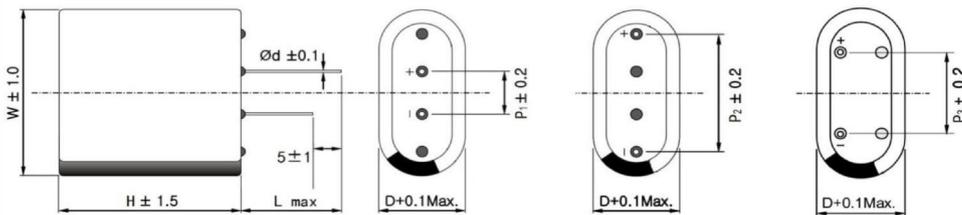
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Part Number 产品型号体系表



※ 容量偏差 (Capacitance Tolerance) □: M:±20%; Q:-10%~+30%; V:-10%~+20%; S:-20%~+50%; A:0%~+20%

Dimensions (mm) 尺寸



| | | | |
|---|--------------|---------------|---------------|
| D | 8 | 10 | 12.5 |
| P | 4.7/12.0/8.5 | 5.5/15.0/10.5 | 7.5/18.0/13.0 |
| d | 0.6 | 0.6 | 0.6 |

Standard size 标准品一览表

| Rated Voltage 额定电压 (V.DC) | Rated Capacitance 额定容量(F) | ESR(mΩ) | | Leakage Current 漏电流 (μA/ 72hours) | ΦD×W×H (mm) | Part No. 编号 |
|---------------------------------|---------------------------------|--------------|------|---|----------------|--------------------|
| | | AC (1kHz) | DC | | | |
| 5.0 | 0.5 | 500 | 1000 | 5 | 8.5×17×15 | ECFME5R0504S081715 |
| | 1.5 | 240 | 480 | 8 | 8.5×17×23 | ECFME5R0155S081723 |
| | 2.5 | 130 | 250 | 10 | 8.5×17×23 | ECFME5R0255S081723 |
| | 4.0 | 100 | 180 | 12 | 11×21×23 | ECFME5R0405S112123 |
| | 5.0 | 90 | 160 | 15 | 11×21×27 | ECFME5R0505S112127 |
| | 7.5 | 70 | 120 | 20 | 13×26×28 | ECFME5R0755S132628 |