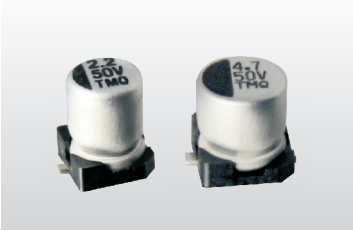
HEADCON

# 鋁電解電容器
Aluminum Electrolytic Capacitor

## VT1 Series

- 工作温度范围宽(–55℃ ~ +105℃) ●适用于再流焊
- 适用于高密度表面组装 ● 性能稳定，可靠性高。
- Operating over wide temperature range ●Reflow soldering is available
- Available for high density surface mounting ●High stability and reliability



## ■主要技术性能 Specifications

| | |
|---|---|
| 使用温度范围<br>Operating Temperature Range | –55 ~ +105℃ |
| 额定电压范围<br>Rated Voltage Range | 6.3 ~ 50V DC |
| 标称电容量允许偏差<br>Capacitance Tolerance | ± 20% (120Hz, 20℃) |
| 漏电流(20℃)<br>Leakage Current | I≤0.01$C_R U_R$(μA)或 3μA 取较大者，( 2 分钟 )<br>I≤0.01$C_R U_R$(μA) or 3μA, Whichever is greater (After 2 minutes) |

**损耗角正切值(120Hz 20℃)<br>Dissipation Factor**

| $U_R$(V) | 6.3 | 10 | 16 | 25 | 35 | 50 |
|---|---|---|---|---|---|---|
| tg δ | 0.26 | 0.20 | 0.16 | 0.14 | 0.12 | 0.12 |

**温度特性 ( 120Hz)<br>Temperature Characteristics<br>Impedance Ratio (120Hz)**

| $U_R$(V) | 6.3 | 10 | 16 | 25 | 35 | 50 |
|---|---|---|---|---|---|---|
| $Z_{-25℃}/Z_{+20℃}$ | 4 | 3 | 2 | 2 | 2 | 2 |
| $Z_{-40℃}/Z_{+20℃}$ | 8 | 6 | 4 | 4 | 3 | 3 |

**耐久性<br>Load Life**

+105℃施加额定电压 1000 小时,恢复 16 小时后,电容器应满足要求
After applying rated voltage for 1000 hours at +105℃ and then resumed 16 hours. The capacitor shall meet the following limits.

| | |
|---|---|
| 电容量变化率<br>Capacitance Change | ≤ ± 20%初始测量值<br>≤ ± 20% of Initial measured value |
| 漏电流值<br>Leakage | ≤规定值<br>≤The specified value |
| 损耗角正切值<br>Dissipation Factor | ≤2 倍规定值<br>≤200% of the specified value |

**高温贮存<br>Shelf Life**

+105℃,1000 小时, 恢复 16 小时后,电容器应满足下列要求。
After storage for 1000 hours at +105℃ and then resumed 16 hours, the capacitor shall meet the following limits.

| | |
|---|---|
| 电容量变化率<br>Capacitance Change | ≤ ± 20%初始测量值<br>≤ ± 20% of Initial measured value |
| 漏电流值<br>Leakage | ≤2 倍的规定值<br>≤200% of the specified value |
| 损耗角正切值<br>Dissipation Factor | ≤2 倍规定值<br>≤200% of the specified value |

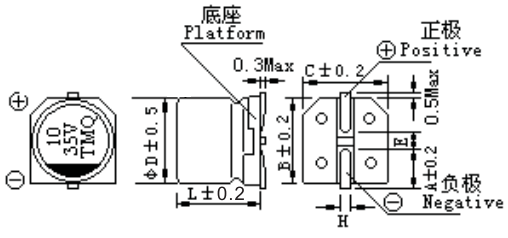
**耐焊接热<br>Resistance to Soldering Heat**

在 250℃的条件下,电容器应在热板上保持 30 秒,然后从热板上取出电容器,让其在室温下恢复,电容器应满足以下要求:
The capacitors shall be kept on the hot plate maintained at 250℃ for 30 seconds. After removing from the hot plate and restored at room temperature,then meet the following requirement.

| | |
|---|---|
| 电容量变化率<br>Capacitance Change | ≤ ± 10%初始测量值<br>≤ ± 10% of Initial measured value |
| 漏电流值<br>Leakage | ≤规定值<br>≤The specified value |
| 损耗角正切值<br>Dissipation Factor | ≤规定值<br>≤The specified value |

## ■尺寸及印字 Dimensions & Marking

(φ4～φ6.3)




mm

| Size | φ4×5.4 | φ5×5.4 | φ6.3×5.4 |
|---|---|---|---|
| A | 1.8 | 2.1 | 2.4 |
| B | 4.3 | 5.3 | 6.6 |
| C | 4.3 | 5.3 | 6.6 |
| E | 1.0 | 1.3 | 2.2 |
| L | 5.4 | 5.4 | 5.4 |
| H | 0.5 ~ 0.9 | | |

# VT1 Series

## ■ 标称电容量、额定电压、额定纹波电流与外形尺寸对应表
Nominal capacitance, rated voltage, rated ripple current and case size table

| WV / mA / μF | 6.3 | | 10 | | 16 | | 25 | | 35 | | 50 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | D×L mm | I~mA | D×L mm | I~mA | D×L mm | I~mA | D×L mm | I~mA | D×L mm | I~mA | D×L mm | I~mA |
| 0.1 | | | | | | | | | | | 4×5.4 | 1.0 |
| 0.22 | | | | | | | | | | | 4×5.4 | 2.0 |
| 0.33 | | | | | | | | | | | 4×5.4 | 3.0 |
| 0.47 | | | | | | | | | | | 4×5.4 | 4.0 |
| 1.0 | | | | | | | | | | | 4×5.4 | 8.0 |
| 2.2 | | | | | | | | | | | 4×5.4 | 11 |
| 3.3 | | | | | | | | | | | 4×5.4 | 13 |
| 4.7 | | | | | 4×5.4 | 12 | 4×5.4 | 13 | 4×5.4 | 14 | 5×5.4 | 18 |
| 10 | | | | | 4×5.4 | 20 | 4×5.4<br>5×5.4 | 14<br>20 | 5×5.4 | 24 | 6.3×5.4 | 28 |
| 22 | 4×5.4 | 20 | 4×5.4<br>5×5.4 | 21<br>27 | 4×5.4<br>5×5.4 | 22<br>31 | 5×5.4<br>6.3×5.4 | 25<br>36 | 5×5.4<br>6.3×5.4 | 27<br>40 | 6.3×5.4 | 42 |
| 33 | 4×5.4<br>5×5.4 | 22<br>27 | 4×5.4<br>5×5.4 | 23<br>34 | 5×5.4<br>6.3×5.4 | 28<br>40 | 5×5.4<br>6.3×5.4 | 29<br>44 | 6.3×5.4 | 50 | | |
| 47 | 4×5.4<br>5×5.4 | 25<br>37 | 5×5.4<br>6.3×5.4 | 30<br>41 | 5×5.4<br>6.3×5.4 | 31<br>56 | 6.3×5.4 | 48 | | | | |
| 100 | 5×5.4<br>6.3×5.4 | 39<br>57 | 6.3×5.4 | 53 | 6.3×5.4 | 75 | | | | | | |
| 220 | 6.3×5.4 | 67 | | | | | | | | | | |

I~额定纹波电流 Rated ripple current：(mA，105℃，120Hz)

## ■ 额定纹波电流的频率系数 Frequency coefficient of rated ripple current

| Frequency 频率 | 50Hz | 120Hz | 300Hz | 1KHz | ≥10KHz |
|---|---|---|---|---|---|
| Coefficient 系数 | 0.70 | 1.00 | 1.17 | 1.36 | 1.50 |