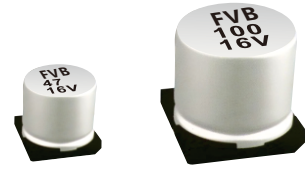


NON-POLARIZED, STANDARD

New
新品

无极性标准品

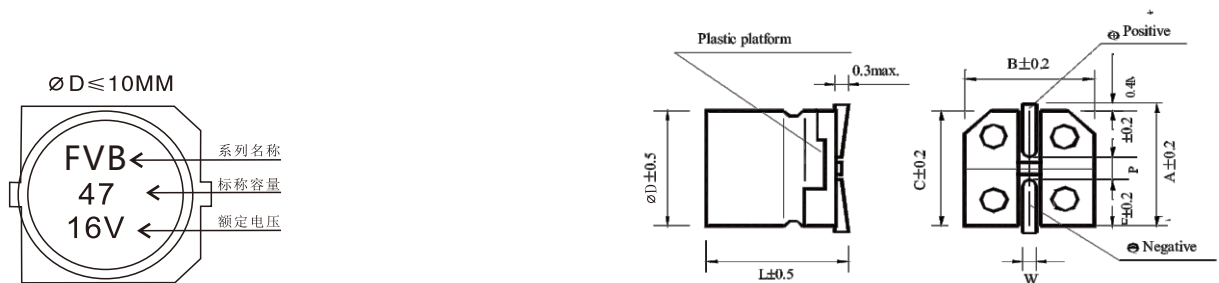
- Non-polarized with wide temperature range $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$
无极性和适用于 $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$ 的常规温度范围
- Load life of 1000 hours
负荷寿命1000 小时
- Comply with the RoHS directive
符合 RoHS 指令



□ SPECIFICATIONS 特性表

Items 项目	Characteristics 主要特性														
Operation Temperature Range 使用温度范围	$-40 \sim +105^{\circ}\text{C}$														
Voltage Range 额定工作电压范围	6.3 ~ 50V														
Capacitance Range 静电容量范围	0.1 ~ 47 μF														
Capacitance Tolerance 静电容量允许偏差	$\pm 20\%$ at 120Hz, 20°C														
Leakage Current 漏电流	Leakage current $\leq 0.05\text{CV}$ or $10\mu\text{A}$, whichever is greater (after 2 minutes application of rated voltage) 漏电流 $\leq 0.05\text{CV}$ 或 $10\mu\text{A}$, 取较大值 (施加额定工作电压 2 分钟后)														
Dissipation Factor ($\tan \delta$) 损耗角正切	Measurement frequency 测试频率: 120Hz, Temperature 温度: 20°C														
	<table border="1"> <tr> <td>Rated Voltage (V) 额定工作电压</td> <td>6.3</td> <td>10</td> <td>16, 25</td> <td>35, 50</td> </tr> <tr> <td>$\tan \delta$ (max.) 最大损耗角正切</td> <td>0.24</td> <td>0.20</td> <td>0.18</td> <td>0.16</td> </tr> </table>	Rated Voltage (V) 额定工作电压	6.3	10	16, 25	35, 50	$\tan \delta$ (max.) 最大损耗角正切	0.24	0.20	0.18	0.16				
Rated Voltage (V) 额定工作电压	6.3	10	16, 25	35, 50											
$\tan \delta$ (max.) 最大损耗角正切	0.24	0.20	0.18	0.16											
Stability at Low Temperature 低温特性	Measurement frequency 测试频率: 120Hz														
	<table border="1"> <tr> <td>Rated Voltage (V) 额定工作电压</td> <td>6.3</td> <td>10</td> <td>16, 25</td> <td>35, 50</td> </tr> <tr> <td>Impedance Ratio 阻抗比</td> <td>$Z(-25^{\circ}\text{C}) / Z(20^{\circ}\text{C})$</td> <td>4</td> <td>3</td> <td>2</td> </tr> <tr> <td></td> <td>$Z(-40^{\circ}\text{C}) / Z(20^{\circ}\text{C})$</td> <td>8</td> <td>6</td> <td>4</td> </tr> </table>	Rated Voltage (V) 额定工作电压	6.3	10	16, 25	35, 50	Impedance Ratio 阻抗比	$Z(-25^{\circ}\text{C}) / Z(20^{\circ}\text{C})$	4	3	2		$Z(-40^{\circ}\text{C}) / Z(20^{\circ}\text{C})$	8	6
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	$Z(-40^{\circ}\text{C}) / Z(20^{\circ}\text{C})$	8	6	4											
Load Life 高温负荷特性	After 1000 hours application of the rated voltage at 105°C (the polarity needs to exchange every 250 hours), they meet the characteristics listed below. 在 105°C 环境中施加额定工作电压1000 小时 (每250 小时必须转换一次极性) 后, 电容器的特性符合下表的要求。														
	<table border="1"> <tr> <td>Capacitance Change 静电容量变化率</td> <td>Within $\pm 20\%$ of initial value 初始值的 $\pm 20\%$ 以内</td> </tr> <tr> <td>Dissipation Factor 损耗角正切</td> <td>200% or less of initial specified value 不大于规范值的200%</td> </tr> <tr> <td>Leakage Current 漏电流</td> <td>initial specified value or less 不大于规范值</td> </tr> </table>	Capacitance Change 静电容量变化率	Within $\pm 20\%$ of initial value 初始值的 $\pm 20\%$ 以内	Dissipation Factor 损耗角正切	200% or less of initial specified value 不大于规范值的200%	Leakage Current 漏电流	initial specified value or less 不大于规范值								
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Leakage Current 漏电流	initial specified value or less 不大于规范值														
Shelf Life 高温贮存特性	After leaving capacitors under no load at 105°C for 1000 hours, they meet the specified value for load life characteristics listed above. 在 105°C 环境中无负荷放置1000 小时后, 电容器的特性符合高温负荷特性中所列的规定值。														
Resistance to Soldering Heat 耐焊接热特性	After reflow soldering and restored at room temperature, they meet the characteristics listed below. 经过回流焊并冷却至室温后, 电容器的特性符合下表的要求。														
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Leakage Current 漏电流	initial specified value or less 不大于规范值														
Marking 标识	Black print on the case top. 铝壳顶部黑字印刷。														

□ DRAWING (Unit: mm) 外形图



□ DIMENSIONS (Unit: mm) 尺寸表

$\varnothing D \times L$	4 x 5.4	5 x 5.4	6.3 x 5.4
A	5.1	6.1	7.3
B	4.3	5.3	6.6
C	4.3	5.3	6.6
$P \pm 0.2$	1.0	1.3	2.2
L	5.4	5.4	5.4

Note: All design and specifications are for reference only and is subject to change without prior notice. If any doubt about safety for your application, please contact us immediately for technical assistance before purchase.

注: 以上所提供的设计及特性参数谨供参考, 任何修改不作预先通知。如果在使用上有疑问, 请在采购前与我们联系, 以便提供技术上的协助

□ DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT 规格尺寸及最大允许纹波电流

μF	WV Code 代码	6.3		10		16		25		35		50	
		0J		1A		1C		1E		1V		1H	
0.1	0R1											4 × 5.4	1.0
0.22	R22											4 × 5.4	2.0
0.33	R33											4 × 5.4	2.8
0.47	R47											4 × 5.4	4.0
1	010											4 × 5.4	8.4
2.2	2R2									4 × 5.4	8.4	5 × 5.4	13
3.3	3R3							5 × 5.4	12	5 × 5.4	16	5 × 5.4	17
4.7	4R7					4 × 5.4	12	5 × 5.4	16	5 × 5.4	18	6.3 × 5.4	20
10	100			4 × 5.4	17	5 × 5.4	23	6.3 × 5.4	27	6.3 × 5.4	29		
22	220	5 × 5.4	28	6.3 × 5.4	33	6.3 × 5.4	37						
33	330	6.3 × 5.4	37	6.3 × 5.4	41	6.3 × 5.4	49					Case size 尺寸	Ripple current 纹波电流
47	470	6.3 × 5.4	45										

• Case size $\varnothing D \times L$ (mm), ripple current (mA rms) at 105°C, 120Hz • 尺寸 $\varnothing D \times L$ (mm), 纹波电流(mA rms)于105°C, 120Hz

□ FREQUENCY COEFFICIENT OF ALLOWABLE RIPPLE CURRENT 纹波电流频率补偿系数

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

- The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.
- 铝电解电容器由于在纹波电流叠加时自我发热，温度上升而老化，每升温5°C寿命减少一半；要想保持长寿命请在使用过程中降低纹波电流。
- Taping specifications are given in page 20 "Taping Specifications". 编带标准请参阅第 20 页“编带标准”。
- Please refer to page 21 "Package Quantity" for the minimum package quantity. 最小包装数量请参阅第 21 页“包装数量”。

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