

LOW LEAKAGE CURRENT

低漏电流品

- Low leakage current (0.5~3.3 μA max.)
- 低漏电流 (0.5~3.3 μA 最大值)
- Low cost for replacement of some tantalum applications
- 可替换价格较高的钽电容器
- Comply with the RoHS directive
- 符合 RoHS指令

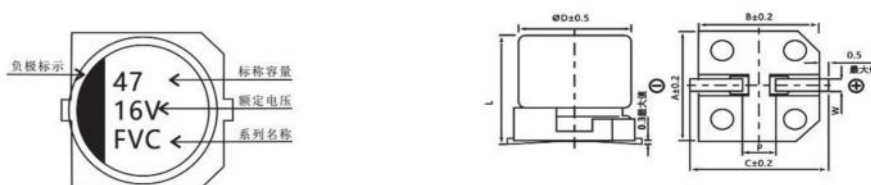


SPECIFICATIONS 特性表

Items 项目	Characteristics 主要特性																				
Operation Temperature Range 使用温度范围	-40 ~ +105°C																				
Voltage Range 额定工作电压范围	6.3 ~ 50V																				
Capacitance Range 静电容量范围	0.1 ~ 220μF																				
Capacitance Tolerance 静电容量允许偏差	±20% at 120Hz, 20°C																				
Leakage Current 漏电流	Leakage current ≤0.002CV or 0.5 μA, whichever is greater (after 2 minutes application of rated voltage) 漏电流 ≤0.002CV 或 0.5 μA, 取较大值 (施加额定工作电压 2 分钟后)																				
Surge Voltage & Dissipation Factor (tan δ) 浪涌电压和损耗角正切	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</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>Surge voltage 浪涌电压</td> <td>8.0</td> <td>13</td> <td>20</td> <td>32</td> <td>44</td> <td>63</td> </tr> <tr> <td>tan δ (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> <td>0.14</td> <td>0.12</td> </tr> </table>	Rated Voltage (V) 额定工作电压	6.3	10	16	25	35	50	Surge voltage 浪涌电压	8.0	13	20	32	44	63	tan δ (max.) 最大损耗角正切	0.24	0.20	0.18	0.16	0.14
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Stability at Low Temperature 低温特性	Measurement frequency 测试频率: 120Hz																				
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Load Life 高温负荷特性	After 2000 hours application of the rated voltage at 105°C, they meet the characteristics listed below. 在 85°C 环境中施加额定工作电压 2000 小时后, 电容器的特性符合下表的要求。																				
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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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Marking 标识	Black print on the case top. 铝壳顶部黑字印刷。																				

FVC | Chip Type 贴片式

DRAWING (Unit: mm) 外形图



DIMENSIONS (Unit: mm) 尺寸表

∅D x L	4x5.4	5x5.4	6.3x5.4	6.3x7.7
A	4.3	5.3	6.6	6.6
B	4.3	5.3	6.6	6.6
C	5.1	5.9	7.2	7.2
P ± 0.2	1.0	1.3	2.2	2.2
L	5.4 ± 0.3	5.4 ± 0.3	5.4 ± 0.3	7.7 ± 0.3

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

WV		6.3 (0J)			10 (1A)			16 (1C)		
Parameter 参数	μF	Case size ∅D × L (mm) 尺寸	E.S.R. (Ω) 20°C, 120Hz E.S.R.值	Ripple current (mA rms) at 105°C, 120Hz 纹波电流	Case size ∅D × L (mm) 尺寸	E.S.R. (Ω) 20°C, 120Hz E.S.R.值	Ripple current (mA rms) at 105°C, 120Hz 纹波电流	Case size ∅D × L (mm) 尺寸	E.S.R. (Ω) 20°C, 120Hz E.S.R.值	Ripple current (mA rms) at 105°C, 120Hz 纹波电流
		10	100							4 × 5.4
22	220	4 × 5.4	23.5	31	5 × 5.4	19.6	35	5 × 5.4	15.7	39
33	330	5 × 5.4	15.7	39	5 × 5.4	13.1	43	6.3 × 5.4	10.5	57
47	470	5 × 5.4	11.0	47	6.3 × 5.4	9.2	59	6.3 × 5.4	7.3	68
100	101	6.3 × 5.4	5.2	75	6.3 × 5.4	4.3	76	6.3 × 7.7	3.5	96
220	221	6.3 × 7.7	2.4	85						

WV		25 (1E)			35 (1V)			50 (1H)		
Parameter 参数	μF	Case size ∅D × L (mm) 尺寸	E.S.R. (Ω) 20°C, 120Hz E.S.R.值	Ripple current (mA rms) at 105°C, 120Hz 纹波电流	Case size ∅D × L (mm) 尺寸	E.S.R. (Ω) 20°C, 120Hz E.S.R.值	Ripple current (mA rms) at 105°C, 120Hz 纹波电流	Case size ∅D × L (mm) 尺寸	E.S.R. (Ω) 20°C, 120Hz E.S.R.值	Ripple current (mA rms) at 105°C, 120Hz 纹波电流
		0.1	0R1							4 × 5.4
0.22	R22							4 × 5.4	980	2.3
0.33	R33							4 × 5.4	653	3.5
0.47	R47							4 × 5.4	459	5
1	010							4 × 5.4	216	10
2.2	2R2							4 × 5.4	98	15
3.3	3R3							4 × 5.4	65	18
4.7	4R7	4 × 5.4	64.2	19	4 × 5.4	55.1	20	5 × 5.4	46	23
10	100	5 × 5.4	30.2	28	5 × 5.4	25.9	30	6.3 × 5.4	22	34
22	220	6.3 × 5.4	13.7	52	6.3 × 5.4	11.8	54	6.3 × 7.7	9.8	85
33	330	6.3 × 5.4	9.1	63	6.3 × 7.7	7.8	105			
47	470	6.3 × 7.7	6.4	100	6.3 × 7.7	5.5	110			

• Case size ∅D×L(mm), ripple current (mA rms) at 105°C, 120Hz • 尺寸∅D×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 10°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10°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。