

NON-POLARIZED, STANDARD

无极性标准品

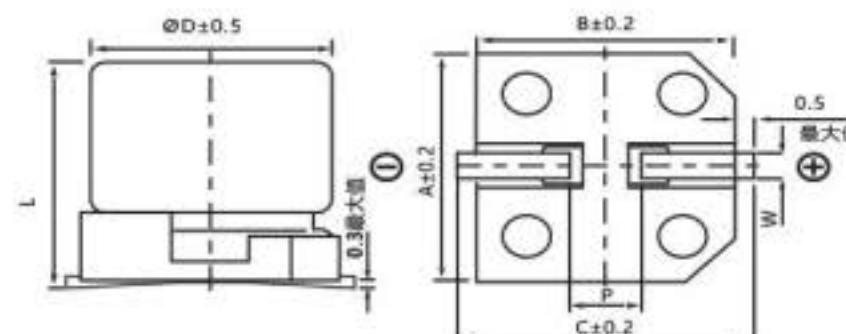
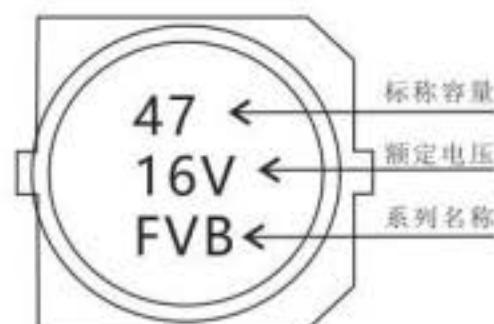
- Non-polarized with wide temperature range -40°C~+105°C
无极性和适用于 -40°C~+105°C 的常规温度范围
- Load life of 1000 hours
负荷寿命1000 小时
- Comply with the RoHS directive
符合 RoHS 指令



□ SPECIFICATIONS 特性表

Items 项目	Characteristics 主要特性																			
Operation Temperature Range 使用温度范围	-40 ~ +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 ~ 47 μF																			
Capacitance Tolerance 静电容量允许偏差	± 20% at 120Hz, 20°C																			
Leakage Current 漏电流	Leakage current≤0.05CV or 10μA, whichever is greater (after 2 minutes application of rated voltage) 漏电流≤0.05CV 或 10 μ A, 取较大值 (施加额定工作电压2 分钟后)																			
Dissipation Factor (tan δ) 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 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> </tr> </table>					Rated Voltage (V) 额定工作电压	6.3	10	16, 25	35, 50	tan δ(max.) 最大损耗角正切	0.24	0.20	0.18	0.16					
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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 Z(-25°C) / Z(20°C)</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> </tr> <tr> <td>ZT/Z20 (max.) Z(-40°C) / Z(20°C)</td> <td>8</td> <td>6</td> <td>4</td> <td>3</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°C) / Z(20°C)	4	3	2	2	ZT/Z20 (max.) Z(-40°C) / Z(20°C)	8	6	4	3
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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 ±20% of initial value 初始值的 ±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 ±20% of initial value 初始值的 ±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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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。 <table border="1"> <tr> <td>Capacitance Change 静电容量变化率</td> <td>Within ±10% of initial value 初始值的 ±10% 以内</td> </tr> <tr> <td>Dissipation Factor 损耗角正切</td> <td>initial specified value or less 不大于规范值</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 ±10% of initial value 初始值的 ±10% 以内	Dissipation Factor 损耗角正切	initial specified value or less 不大于规范值	Leakage Current 漏电流	initial specified value or less 不大于规范值									
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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

Ø D x L	4 x 5.4	5 x 5.4	6.3 x 5.4
A	4.3	5.3	6.6
B	4.3	5.3	6.6
C	5.1	5.9	7.2
P ± 0.2	1.0	1.5	2.0
L	5.4 ± 0.3	5.4 ± 0.3	5.4 ± 0.3

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

WV μF	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
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 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。

● Taping specifications are given in page 17 "Taping Specifications". 编带标准请参阅第 17 页 “编带标准”。

● Please refer to page 18 "Package Quantity" for the minimum package quantity. 最小包装数量请参阅第 18 页 “包装数量”。