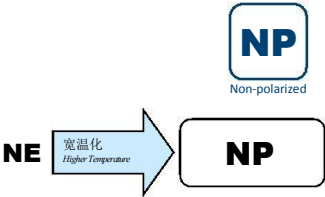


NP Series

NON-POLARIZED, WIDE TEMPERATURE RANGE

无极性宽温品

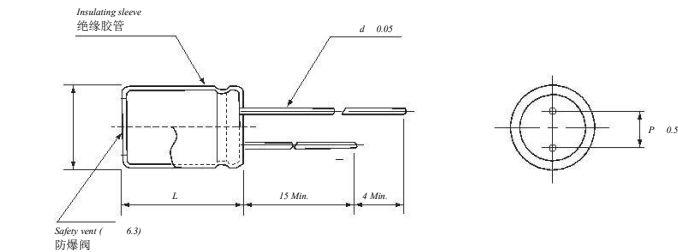
- Wide operating temperature range of $-40\sim+105^{\circ}\text{C}$
适用于 $-40\sim+105^{\circ}\text{C}$ 的宽温范围
- Designed for use in circuits with reversing polarity
适用于极性变换电路
- Comply with the RoHS & REACH
符合RoHS与REACH



SPECIFICATIONS 特性表

Items 项目	Characteristics 主要特性																					
Category Temperature Range 工作温度范围	-40 ~ +105℃																					
Voltage Range 额定工作电压范围	6.3 ~ 100V																					
Capacitance Range 静电容量范围	0.1 ~ 10000 μ F																					
Capacitance Tolerance 静电容量允许偏差	±20% at 120Hz, 20℃																					
Leakage Current 漏电流	Leakage current 0.03CV or 3 μ A, whichever is greater (after 5 minutes application of rated voltage at 20 ℃) 漏电流 0.03CV 或 3 μ A, 取较大值 (在20 ℃环境中施加额定工作电压5分钟后) C: Nominal capacitance (F) 标称静电容量, V: Rated voltage (V) 额定电压																					
Dissipation Factor (tan δ) 损耗角正切	When nominal capacitance is over 1000 μ F, tan δ shall be added 0.02 to the listed value with increase of every 1000 μ F. 当标称静电容量大于1000 μ F, 其标称静电容量每增加1000 μ F, 损耗角正切增加0.02。 Measurement frequency 测试频率: 120Hz, Temperature 温度: 20℃ <table><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>50~100</td></tr><tr><td>tan δ (max.) 最大损耗角正切</td><td>0.24</td><td>0.20</td><td>0.16</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	50~100	tan δ (max.) 最大损耗角正切	0.24	0.20	0.16	0.16	0.14	0.12		
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Stability at Low Temperature 低温特性	Measurement frequency 测试频率: 120Hz <table><tr><td>Rated Voltage (V) 额定工作电压</td><td>6.3</td><td>10</td><td>16</td><td>25~100</td></tr><tr><td rowspan="2">Impedance Ratio 阻抗比</td><td>Z(-25℃) / Z(+20℃)</td><td>4</td><td>3</td><td>2</td><td>2</td></tr><tr><td>Z(-40℃) / Z(+20℃)</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	25~100	Impedance Ratio 阻抗比	Z(-25℃) / Z(+20℃)	4	3	2	2	Z(-40℃) / Z(+20℃)	8	6	4	3
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	Z(-40℃) / Z(+20℃)	8	6	4	3																	
Endurance 耐久性	When the capacitors are restored to 20℃ after 1000 hours application of the rated voltage at 105℃, they meet the characteristics listed below. 在 105℃ 环境中施加额定工作电压1000小时后, 待电容器恢复至20℃时进行测量, 电容器的特性符合下表要求。 <table><tr><td>Capacitance Change 静电容量变化率</td><td>Within ±20% of initial measured value 初始值的 ±20%以内</td></tr><tr><td>Dissipation Factor 损耗角正切</td><td>200% 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 不大于规范值</td></tr></table>						Capacitance Change 静电容量变化率	Within ±20% of initial measured value 初始值的 ±20%以内	Dissipation Factor 损耗角正切	200% of initial specified value 不大于规范值的200%	Leakage Current 漏电流	initial specified value 不大于规范值										
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Leakage Current 漏电流	initial specified value 不大于规范值																					
Shelf Life 高温贮存特性	When the capacitors are restored to 20℃ after leaving under no load at 105℃ for 1000 hours, they meet the specified value for endurance characteristics listed above. 在 105℃ 环境中无负荷放置1000小时后, 待电容器恢复至20℃时进行测量, 电容器的特性符合耐久性特性中所列的规定值。																					
Marking 标识	Printed with white colour on black sleeve (PVC) or printed with white colour on green sleeve (PET). 黑色胶管白字印刷 (PVC) 或绿色胶管白字印刷 (PET)。																					

DRAWING & DIMENSIONS 外形图及尺寸 (Unit: mm)



D	5	6.3	8 (d: 11.5)	8 (d: 16)	10	13	16	18	22	25
P	2.0	2.5	3.5	5.0	7.5	10.0	12.5			
d	0.5	0.6	0.8							
	1.5	2.0								
α	0.5	1.0								

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	0.1 ~47 F	0.75	1.00	1.35	1.55	2.00
	68 ~ 680 F	0.80	1.00	1.25	1.34	1.50
	1000 ~ 6800 F	0.85	1.00	1.10	1.13	1.15

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every $5\sim10^{\circ}\text{C}$ rise. When long life performance is required in actual use, the rms ripple current has to be reduced. 铝电解电容器在叠加纹波电流后会引起发热, 温度每上升 $5\sim10^{\circ}\text{C}$ 寿命会减半。若要保持长寿命性能, 请在使用过程中适当降低纹波电流。

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仅供参考, 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。

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