

NP

Series Non-Polarized 105°C
无极性产品 105°C

一般适用于信号交换、喇叭等回路中。

★ Suitable for use circuits whose polarity is reversed such as: signal coupling circuits and speakers, etc.

★ Load Life 2000Hrs at 105°C

主要技术性能 Specifications

项目 Item	特性 Performance Characteristics																																					
使用温度范围 Operating temperature rang	-40 ~ 105°C	-25 ~ 105°C																																				
额定电压范围 Rated voltage range	6.3 ~ 100V	160 ~ 450V																																				
标准电容量范围 Nominal capacitance range	0.47 ~ 3300 μF	0.47 ~ 47 μF																																				
标准电容量允许偏差 Capacitance tolerance	±20% (120Hz, +20°C)																																					
漏电流 Leakage current	I ≤ 0.03CV (A) or 3μA																																					
损耗角正切值 (tan. δ) Dissipation factor max. (D.F.) at 20°C, 120Hz	<table border="1"> <tr> <td>Working Voltage V_{DC}(V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> <td>160</td> <td>200</td> <td>250</td> </tr> <tr> <td>DF (%)Max.</td> <td>25</td> <td>25</td> <td>20</td> <td>15</td> <td>15</td> <td>13</td> <td>10</td> <td>10</td> <td>15</td> <td>15</td> <td>20</td> </tr> </table> <p>当容量大于1000 μF 时, 每增加1000 μF 的容量, DF 增加2%。 For Capacitance >1000 μF, add 2% per another 1000 μF.</p>		Working Voltage V _{DC} (V)	6.3	10	16	25	35	50	63	100	160	200	250	DF (%)Max.	25	25	20	15	15	13	10	10	15	15	20												
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低温特性 Low Temperature Characteristics (Impedance ratio at 120Hz)	<table border="1"> <tr> <td>Working Voltage (V_{DC})</td> <td>6</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>63</td> <td>100</td> <td>160</td> <td>200</td> <td>250</td> </tr> <tr> <td>Z-25°C/+20°C</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>3</td> </tr> <tr> <td>Z-40°C/+20°C</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>3</td> <td>3</td> <td></td> <td></td> <td></td> </tr> </table> <p>For Capacitance >1000 μF, add 0.5 per another 1000 μF for 25°C/420°C add 1 per another 1000 μF for 40°C/420°C</p>		Working Voltage (V _{DC})	6						63	100	160	200	250	Z-25°C/+20°C							2	2	2	2	3	Z-40°C/+20°C							3	3			
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负荷寿命 Load life	<p>+105°C下施加额定工作电压2000Hrs 后, 特性变化率如下: After applying rated voltage for 2000Hrs at +105°C ,</p> <table border="1"> <tr> <td>Capacitance Change</td> <td>≤ ±20%初始测量值以内 The initial value</td> </tr> <tr> <td>D.F. (%)Change</td> <td>≤ 200%初始规定值 The initial specified value</td> </tr> <tr> <td>Leakage Current Change</td> <td>≤ 初始规定值 The initial specified value</td> </tr> </table>		Capacitance Change	≤ ±20%初始测量值以内 The initial value	D.F. (%)Change	≤ 200%初始规定值 The initial specified value	Leakage Current Change	≤ 初始规定值 The initial specified value																														
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放置寿命 Shelf life	<p>+105°C下放置1000Hrs 后, 特性变化率如下: After 1000Hrs at +105°C ,</p> <table border="1"> <tr> <td>Capacitance Change</td> <td>≤ ±20%初始测量值以内 The initial value</td> </tr> <tr> <td>D.F. (%)Change</td> <td>≤ 200%初始规定值 The initial specified value</td> </tr> <tr> <td>Leakage Current Change</td> <td>≤ 初始规定值 The initial specified value</td> </tr> </table>		Capacitance Change	≤ ±20%初始测量值以内 The initial value	D.F. (%)Change	≤ 200%初始规定值 The initial specified value	Leakage Current Change	≤ 初始规定值 The initial specified value																														
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纹波与频率系数对照表

Multiplier of ripple current vs frequency

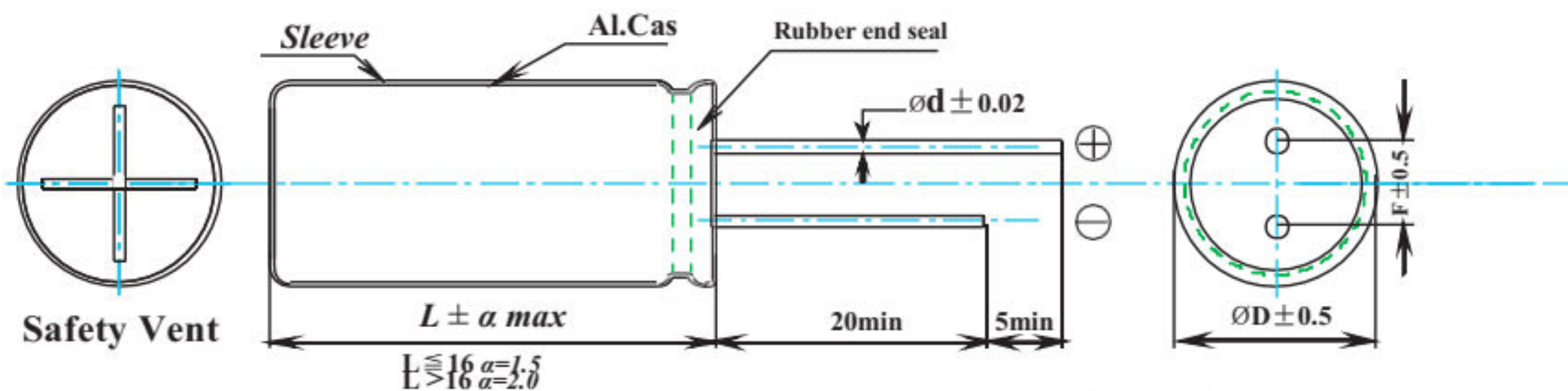
CAP (μF) \ Hz	50	60	120	400	1K	10K	50K-100K
CAP ≤ 10	0.8	1	1.30	1.45	1.65	1.70	
10 < CAP ≤ 100	0.8	1	1.23	1.36	1.48	1.53	
100 < CAP ≤ 1000	0.8	1	1.16	1.25	1.35	1.38	
1000 < CAP	0.8	1	1.11	1.17	1.25	1.28	

纹波与温度系数对照表

Multiplier of ripple current vs temperature

Temperature (°C)	55	60	70	85	105
系数 Factor	2.23	2.17	2.00	1.75	1.00

规格尺寸图 Dimensions: (mm)



φD ± 0.5	5	6.3	8	10	13	16	18
F ± 0.5	2.0	2.5	3.5	5.0	5.0	7.5	7.5
φd ± 0.02	0.5	0.5	0.5	0.6	0.6	0.8	0.8

尺寸与纹波对照表 Ripple current vs size

WV (V) Cap (F)		6.3 (6)		10 (3)		16 (20)		25 (62)		35 (44)	
		Size	R.C.	Size	R.C.	Size	R.C.	Size	R.C.	Size	R.C.
10								5X11	34	5X11	38
22						5X11	50	6.3x12	55	6.3x12	65
33				5X11	60	5X11	60	6.3x12	70	8x12	75
47				5X11	80	6.3x12	90	6.3x12	96	8x12	110
100		5X11	100	6.3x12	100	8x12	120	8x12	150	10x13	200
220		8X12	150	8x12	160	8x12	200	10x13	250	10x20	320
330		8X12	190	10x13	230	10x13	260	10x17	310	13x21	370
470		10X13	280	10x13	290	10x17	360	13x21	420	13x25	490
1000		10X17	350	10x20	430	13x21	510				
2200		13X21	640	16x26	830	16x31.5	950				
3300		16X26	950	16x31.5	1150						

WV (V) Cap (F)		50 (63)		63 (79)		100 (25)		160 (200)		200 (250)		250 (600)	
		Size	R.C.	Size	R.C.	Size	R.C.	Size	R.C.	Size	R.C.	Size	R.C.
0.47		5X11	8	5X11	9	5X11	10	5X11	12	6.3X12	17	6.3X12	22
1		5X11	12	5X11	14	5X11	15	6.3X12	18	8X12	20	8X12	25
2.2		5X11	17	5X11	20	5X11	20	8X12	28	8X12	32	10X13	40
						6.3X12	22			10X13	40	10X17	45
3.3		5X11	23	6.3X12	25	6.3X12	28	8X12	37	10X17	52	10X20	65
4.7		5X11	30	6.3X12	30	6.3X12	32	10X13	45	10X20	86	10X20	110
						8X12	36			13X21	160	13X25	190
10		6.3X11	50	6.3X12	50	8X12	50	10X17	80	13X25	210	16X26	250
						10X13	55						
22		8X12	85	8X12	88	10X17	120	13X21	140				
				10X13	90								
33		8X12	90	10X13	110	10x20	170	13X21	200				
47		10X13	120	10X17	150	13X21	190	13X25	220				
100		10X17	200	13X21	290	16X26	400						
		10X20	220										
220		13X21	340	13X25	420								
		13X25	370										
330		16X26	500										

Ripple Current (mA rms) at 105°C 120Hz