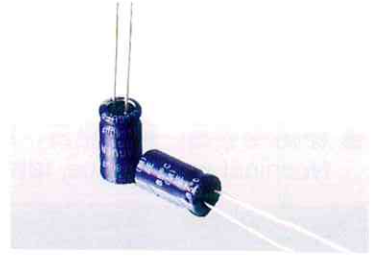


#### RS1 Series (standard) 引线型铝电解电容器标准品

- 体积小 • 85°C、2000 小时
- 性能稳定, 符合 RoHS
- Small size • 85°C, 2000 hours
- High stability, RoHS Compliance

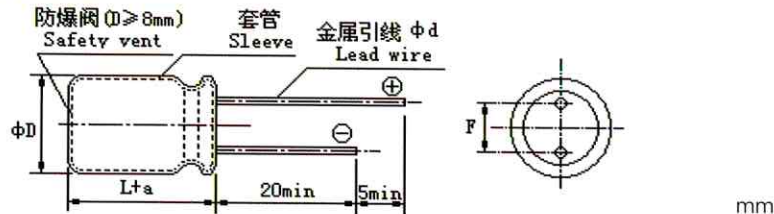
Standard Aluminum Electrolytic Capacitor of Radial Lead Type



#### 主要技术性能 Specifications

使用温度范围 Operating Temperature Range	-40 ~ +85°C	-25 ~ +85°C																																																									
额定电压范围 Rated Voltage Range	6.3 ~ 100V DC	160 ~ 450V DC																																																									
标称电容量允许偏差 Capacitance Tolerance	± 20% (120Hz, 20°C)																																																										
漏电流 Leakage Current	6.3 ~ 100V.DC	160 ~ 450V.DC																																																									
	$I \leq 0.01CV$ 或 $3 \mu A$ 取较大者(2分钟) $I \leq 0.01CV$ or $3 \mu A$ Whichever is greater (after 2 minutes)	$CV \leq 1000$ $I = 0.1CV + 40 \mu A$ (1minute) $I = 0.03CV + 15 \mu A$ (5minutes)	$CV > 1000$ $I = 0.04CV + 100 \mu A$ (1 minute) $I = 0.02CV + 25 \mu A$ (5 minutes)																																																								
损耗角正切值 Dissipation Factor (120Hz 20°C)	<table border="1"> <tr> <td>W.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>250</td> <td>350</td> <td>400</td> <td>450</td> </tr> <tr> <td>tg δ</td> <td>0.28</td> <td>0.24</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.08</td> <td>0.20</td> <td>0.20</td> <td>0.20</td> <td>0.25</td> <td>0.25</td> </tr> </table> <p>容量大于 1000 μ F 者, 每增加 1000 μ F, 其损耗角正切值增加 0.02 For capacitance exceeding 1000 μ F, add 0.02 per increment of 1000 μ F</p>														W.V	6.3	10	16	25	35	50	63	100	160	250	350	400	450	tg δ	0.28	0.24	0.20	0.16	0.14	0.12	0.10	0.08	0.20	0.20	0.20	0.25	0.25																	
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温度特性 (120Hz) Temperature Characteristics Impedance Ratio (120Hz)	<table border="1"> <tr> <td>WV</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> <td>350</td> <td>400</td> <td>450</td> </tr> <tr> <td>Z -25°C/ Z +20°C</td> <td>5</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>3</td> <td>3</td> <td>4</td> <td>5</td> <td>5</td> <td>7</td> </tr> <tr> <td>Z -40°C/ Z +20°C</td> <td>12</td> <td>10</td> <td>8</td> <td>5</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>4</td> <td>4</td> <td>8</td> <td>8</td> <td>10</td> <td>-</td> </tr> </table>														WV	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450	Z -25°C/ Z +20°C	5	4	3	2	2	2	2	2	3	3	4	5	5	7	Z -40°C/ Z +20°C	12	10	8	5	4	3	3	3	4	4	8	8	10	-
WV	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450																																													
Z -25°C/ Z +20°C	5	4	3	2	2	2	2	2	3	3	4	5	5	7																																													
Z -40°C/ Z +20°C	12	10	8	5	4	3	3	3	4	4	8	8	10	-																																													
耐久性 Load Life	<p>+85°C施加带纹波电流的额定电压 2000 小时, 恢复 16 小时后。 After applying rated voltage with specified ripple current for 2000 hours at +85°C and then resumed 16 hours. The capacitor shall meet the following limits.</p> <table border="1"> <tr> <td>电容量变化率 Capacitance Change</td> <td>≤ ± 25% 初始测量值 ≤ ± 25% of Initial measured value</td> </tr> <tr> <td>漏电流值 Leakage</td> <td>≤ 规定值 ≤ The specified value</td> </tr> <tr> <td>损耗角正切值 Dissipation Factor</td> <td>≤ 2 倍规定值 ≤ 200% of the specified value</td> </tr> </table>														电容量变化率 Capacitance Change	≤ ± 25% 初始测量值 ≤ ± 25% of Initial measured value	漏电流值 Leakage	≤ 规定值 ≤ The specified value	损耗角正切值 Dissipation Factor	≤ 2 倍规定值 ≤ 200% of the specified value																																							
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高温贮存 Shelf Life	<p>+85°C, 1000 小时, 然后按 JISC5101-4 第 4.1 项预处理后测量。 After storage for 1000 hours at +85°C, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JISC5101-4.</p> <table border="1"> <tr> <td>电容量变化率 Capacitance Change</td> <td>≤ ± 20% 初始测量值 ≤ ± 20% of Initial measured value</td> </tr> <tr> <td>漏电流值 Leakage</td> <td>≤ 规定值 ≤ The specified value</td> </tr> <tr> <td>损耗角正切值 Dissipation Factor</td> <td>≤ 2 倍规定值 ≤ 200% of the specified value</td> </tr> </table>														电容量变化率 Capacitance Change	≤ ± 20% 初始测量值 ≤ ± 20% of Initial measured value	漏电流值 Leakage	≤ 规定值 ≤ The specified value	损耗角正切值 Dissipation Factor	≤ 2 倍规定值 ≤ 200% of the specified value																																							
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#### 外形图及尺寸 Case size table



ΦD ± 0.5	5	6.3	8	10	12.5 or 13	16	18
L	11	11	11.5	12, 16, 20	20, 25	25, 31, 36	36, 40
F ± 0.5	2.0	2.5	3.5	5.0			7.5
Φd ± 0.05	0.5		0.5/0.6	0.6			0.8
a	1.5(WV ≤ 100); 2.0(WV > 100)					2.0	

## RS1 Series (standard)

- 标称电容量、额定电压、额定纹波电流及外形尺寸对应表  
Nominal capacitance, rated voltage, rated ripple current and case size table

μF	WV mA	6.3 (0J)		10 (1A)		16 (1C)		25 (1E)		35 (1V)		50 (1H)		63 (1J)	
		ΦD×L	I~mA	ΦD×L	I~mA	ΦD×L	I~mA	ΦD×L	I~mA	ΦD×L	I~mA	ΦD×L	I~mA	ΦD×L	I~mA
1.0 (010)												5×11	13		
2.2 (2R2)												5×11	23		
3.3 (3R3)												5×11	35		
4.7 (4R7)												5×11	41		
10 (100)												5×11	60	5×11	70
22 (220)										5×11	90	5×11	95	5×11	110
33 (330)								5×11	98	5×11	110	5×11	130	6.3×11	140
47 (470)						5×11	115	5×11	120	5×11	135	6.3×11	160	6.3×11	190
100 (101)		5×11	135	5×11	140	5×11	175	5×11	185	6.3×11	215	8×11.5	270	8×11.5	290
220 (221)		5×11	220	5×11	230	6.3×11	280	6.3×11	310	8×11.5	370	10×12	435	10×16	490
330 (331)		6.3×11	280	6.3×11	310	6.3×11	360	8×11.5	410	10×12	500	10×16	590	10×20	710
470 (471)		6.3×11	360	6.3×11	400	8×11.5	460	8×11.5	550	10×12	680	10×20	760	12.5×20	900
680 (681)		6.3×11	460	8×11.5	580	8×11.5	620	10×12	780	10×16	910	12.5×20	1000	12.5×25	1200
1000 (102)		8×11.5	590	8×11.5	560	10×12	720	10×16	870	10×20	1180	12.5×25	1350	16×25	1350
2200 (222)		10×16	920	10×16	1090	10×20	1320	12.5×20	1500	16×25	1810	16×31	1980	18×31	1800
3300 (332)		10×20	1200	10×20	1440	12.5×20	1600	16×25	2000	16×25	1990	18×31	2100	18×40	2600
4700 (472)		12.5×20	1550	12.5×20	1680	12.5×25	2050	16×25	2120	16×36	2500	18×40	2800		
6800 (682)		12.5×25	1920	12.5×25	2150	16×25	2250	16×31	2440	18×36	2740				
10000 (103)		16×25	2370	16×25	2270	16×31	2660	18×36	2900						
15000 (153)		16×31	2550	16×36	2880	18×36	2950								
22000 (223)		16×36	2900	18×36	3100										
33000 (333)		18×40	3400												

μF	WV mA	100 (2A)		160 (2C)		200 (2D)		250 (2E)		350 (2V)		400 (2G)		450 (2W)	
		ΦD×L	I~mA	ΦD×L	I~mA	ΦD×L	I~mA	ΦD×L	I~mA	ΦD×L	I~mA	ΦD×L	I~mA	ΦD×L	I~mA
0.47 (R47)		5×11	8					6.3×11	8	6.3×11	8	6.3×11	8	6.3×11	8
1.0 (010)		5×11	16					6.3×11	16	6.3×11	16	6.3×11	16	6.3×11	16
2.2 (2R2)		5×11	35					6.3×11	30	6.3×11	30	8×11.5	31	8×11.5	29
3.3 (3R3)		5×11	45			6.3×11	40	6.3×11	45	8×11.5	45	8×11.5	48	8×11.5	33
4.7 (4R7)		5×11	50	6.3×11	45	6.3×11	51	6.3×11	54	8×11.5	55	10×12	56	10×12	46
10 (100)		5×11	75	8×11.5	83	8×11.5	85	10×12	90	10×16	90	10×16	90	10×20	84
22 (220)		6.3×11	135	10×12	130	10×16	150	10×16	150	12.5×20	185	12.5×20	200	12.5×25	140
33 (330)		8×11.5	185	10×16	180	10×20	205	10×20	205	12.5×25	240	12.5×25	240	16×25	180
47 (470)		8×11.5	220	10×20	230	10×20	220	12.5×20	260	16×25	300	16×25	250	16×31	220
100 (101)		10×16	380	12.5×25	430	12.5×25	320	16×25	450	18×31	520	18×36	420	18×40	280
220 (221)		12.5×20	610	16×31	645	16×31	540	18×36	680						
330 (331)		12.5×25	760	16×36	700	18×36	800								
470 (471)		16×25	1000	18×40	1200										
680 (681)		16×31	1100												
1000 (102)		18×31	1200												

I~ 额定纹波电流 Rated ripple current: (mA, 85°C, 120Hz)

## 编带产品规格 Taping Specifications (Radial Type)

### ■ Taping Specifications

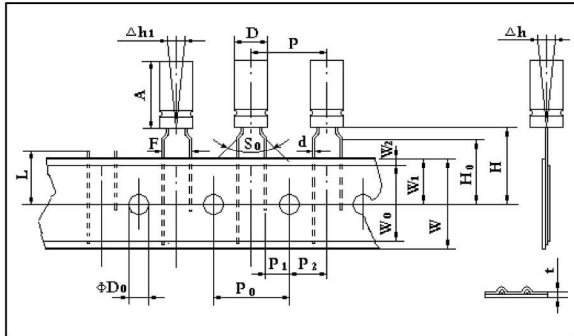


Figure 1

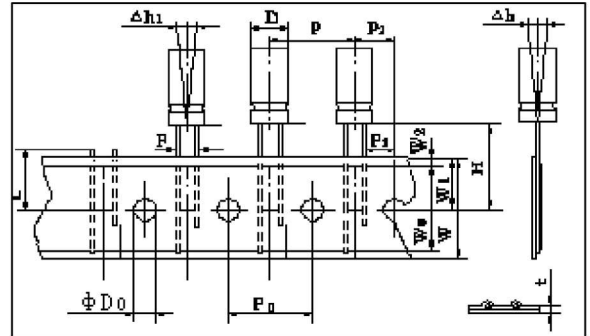


Figure 2

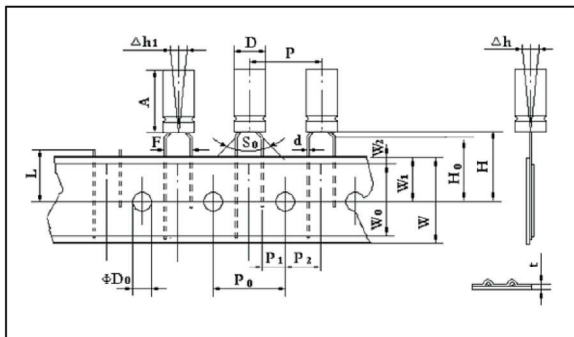


Figure 3

### ■ Packaging Specification

Diameter	Ammunition	Ammunition packing dimensions(mm)
	Quantity/Box(pcs)	
φ 4	3000	330 × 296 × 49
φ 5	2000	330 × 250 × 49
φ 6.3	2000	330 × 296 × 49
φ 8	1000	330 × 250 × 49

Code <b>F1</b>	Case Size				Tol
	4*5 4*7	5*5 5*7 5*11	6.3*5 6.3*7 6/6.3*11	8*5 8*7 8*11.5	
Reference figure	Figure 1				--
φ d	0.45	0.45 0.5 ( 5*11 )	0.45 0.5 ( 6*11 )	0.45 0.5(8*7) 0.5(8*11.5)	± 0.05
p	12.7				± 1.0
P <sub>0</sub>	12.7				± 0.3
P <sub>1</sub>	3.85				± 0.5
F	5.0				+0.6/-0.2
Δh	0				± 1.0
W	18.0				± 0.5
W <sub>0</sub>	12min				--
W <sub>1</sub>	9.0				± 0.5
W <sub>2</sub>	2.0 max				--
H	18.5 ( 17.5 ) *				± 0.5
H <sub>0</sub>	16.0				± 0.5
D <sub>0</sub>	4.0				± 0.3
t	0.6				± 0.2
Δh1	0				± 0.2

Code <b>F2</b>	Case Size					Tol
	4*5 4*7	5*5 5*7 5*11	6.3*5 6.3*7 6/6.3*11	8*5 8*7 8*11.5	$\phi$ 10	
Reference figure	Figure 2					--
$\phi$ d	0.45	0.45 0.5 ( 5*11 )	0.45 0.5 ( 6*11 )	0.45 0.5(8*7) 0.5(8*11.5)	0.60	$\pm 0.05$
p	12.7					$\pm 1.0$
P <sub>0</sub>	12.7					$\pm 0.3$
P <sub>1</sub>	5.6	5.35	5.1	4.6	3.85	$\pm 0.5$
F	1.5	2.0	2.5	3.5	5.0	+0.6/-0.2
$\Delta$ h	0					$\pm 1.0$
W	18.0					$\pm 0.5$
W <sub>0</sub>	12min					--
W <sub>1</sub>	9.0					$\pm 0.5$
W <sub>2</sub>	2.0 max					--
H	18.5 ( 17.5 ) *					$\pm 0.5$
H <sub>0</sub>	--					--
D <sub>0</sub>	4.0					$\pm 0.3$
t	0.6					$\pm 0.2$
$\Delta$ h1	0					$\pm 0.2$

Code <b>F3</b>	Case Size			Tol
	4*5 4*7	5*5 5*7 5*11	8*5 8*7	
Reference figure	Figure 3		Figure 2	--
$\phi$ d	0.45	0.45 0.5 ( 5*11 )	0.45 0.5(8*7)	$\pm 0.05$
p	12.7			$\pm 1.0$
P <sub>0</sub>	12.7			$\pm 0.3$
P <sub>1</sub>	5.1			$\pm 0.5$
F	2.5			+0.6/-0.2
$\Delta$ t	0			$\pm 1.0$
W	18.0			$\pm 0.5$
W <sub>c</sub>	12min			--
W <sub>1</sub>	9.0			$\pm 0.5$
W <sub>2</sub>	2.0 max			--
H	18.5 ( 17.5 ) *			$\pm 0.5$
H <sub>0</sub>	16.0		--	$\pm 0.5$
D <sub>0</sub>	4.0			$\pm 0.3$
t	0.6			$\pm 0.2$
$\Delta$ h1	0			$\pm 0.2$

# 成型产品规格

## Lead Forming Specifications (Radial Type)

■ Lead Forming Specifications

Code		Case Size				Shape Figure
		D	d ± 0.05	s ± 0.5	h	
C	1	φ 4	φ 0.45	1.5	h ± 0.3	
		φ 5	φ 0.45/0.5	2.0		
		φ 6.3	φ 0.45/0.5	2.5		
		φ 8	φ 0.45/0.5	3.5		
C	B	φ 4	φ 0.45	5	h ± 0.3	
		φ 5	φ 0.45/0.5	5	h ± 0.3	
		φ 6.3	φ 0.45/0.5	5	h ± 0.3	
		φ 8	φ 0.45/0.5	5	h ± 0.3	
C	K	φ 4	φ 0.45	1.5	h ± 0.5	
		φ 5	φ 0.45	2.0	h ± 0.5	
		φ 6.3	φ 0.45	2.5	h ± 0.5	
		φ 8	φ 0.45	3.5	h ± 0.5	
φ 0.50						
C	N	φ 4	φ 0.45	1.5	h ± 0.5	
		φ 5	φ 0.45	2.0	h ± 0.5	
		φ 6.3	φ 0.45	2.5	h ± 0.5	
C	M	φ 4	φ 0.45	1.5	h ± 0.5	
		φ 5	φ 0.45	2.0	h ± 0.5	
		φ 6.3	φ 0.45	2.5	h ± 0.5	

Note: "h" depends on customer's requirement.