



广东容硕半导体有限公司

Guangdong Roso Semiconductor Co.,Ltd

系列规格书

系列类型：标准品 **RVT**

产品名称：贴片铝电解电容器

APPROVAL		
APPROVAL	CHECK	PREPARE
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貼片鋁電解電容器代碼標志

Code Sign SMD(V-Chip) Aluminum Electrolytic Capacitor

代碼解釋 Explanation of Part Number

1 2 3	產品型號 Series	RVS	RVK	RVT	RVE	RVW	RVH	RVN	RVZ	RVL									
4 5	額定電壓 R.W.Voltage(v)	4	6.3	10	16	25	35	50	63	100	400								
	代號 Code	0G	0J	1A	1C	1E	1V	1H	1D	2A	2G								
7 8	標稱容量 Capacitance(uf)	1	2.2	3.3	4.7	6.8	8.2	10	22	33	47	100	150	220	330	470	680	1000	1500
	代號 Code	1R0	2R2	3R3	4R7	6R8	8R2	100	220	330	470	101	151	221	331	471	681	102	152
9	容量允許誤差 Cap. Tol	±5%		±10%			±20%			0~20%			-10~30%			-10~20%			
	代號 Code	J		K			M			A			Q			V			
10 11 12 13	尺寸 Size	4×5.4	5×5.4	6.3×5.4	6.3×7.7	8×6.5	8×10.2	10×10.2	8×12	10×12									
	代號 Code	0405	0505	0605	0607	0806	0810	1010	0812	1012									

實例 For Example: RVT 100μF 10V

1 2 3 4 5 6 7 8 9 10 11 12 13
R V T 1 A 1 0 1 M 0 5 0 5

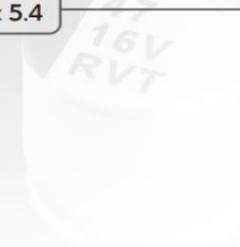
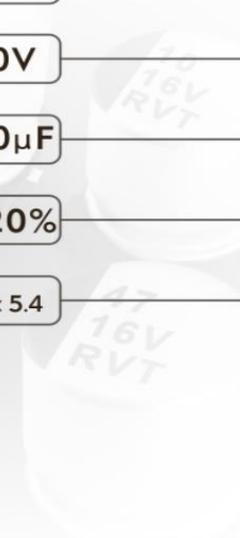
產品型號
Series **RVT**

工作電壓
R.W.Voltage **10V**

標稱容量
Capacitance **100μF**

容量允許誤差
Cap. Tol **±20%**

尺寸
Size **Φ5×5.4**



RVT Series

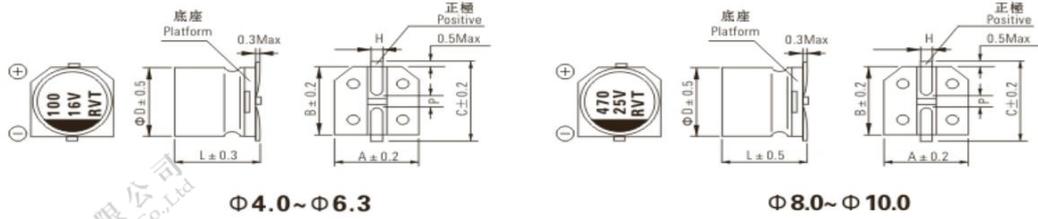


- A. 適用於回流焊
Reflow soldering available for reflow soldering.
- B. 適用於高密度表面組裝
Available for high density surface mounting.
- C. 性能可靠、可靠性高
High stability and reliability
- D. 壽命：105°C, 2000小時
Lifetime: 105°C, 2000Hr
- E. ROHS.REACH指令已對應完畢
Adapted to the ROHS.REACH directive.

主要技術性能 Specifications

使用溫度範圍 Operating temperature range	-55~ +105°C																											
額定電壓範圍 Rated voltage range	6.3V~100V DC																											
標稱電容量範圍 Nominal capacitance range	1~1500 μF																											
標稱電容量允許偏差 Nominal capacitance tolerance	±20% (120Hz, 20°C)																											
漏電流(20°C) Leakage current	$I \leq 0.01CV (\mu A)$ 或 $3 \mu A$ 取較大者(2分鐘) Less than $0.01CV (\mu A)$ or $3 \mu A$ whichever is greater (after 2 minutes)																											
損耗角正切值 Dissipation factor (120Hz 20°C)	<table border="1"> <thead> <tr> <th>Rated Voltage(V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> </tr> </thead> <tbody> <tr> <td>Tan δ (max)</td> <td>0.30</td> <td>0.24</td> <td>0.20</td> <td>0.18</td> <td>0.16</td> <td>0.14</td> <td>0.14</td> <td>0.14</td> </tr> </tbody> </table>	Rated Voltage(V)	6.3	10	16	25	35	50	63	100	Tan δ (max)	0.30	0.24	0.20	0.18	0.16	0.14	0.14	0.14									
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耐久性 Load life	<p>+105°C 施加額定電壓2000小時，恢復16小時後，電容器應滿足下要求 After applying rated voltage for 2000 hours at +105°C and then resumed 16 hours, the capacitor shall meet the following limits.</p> <table border="1"> <tbody> <tr> <td>電容量變化率 Capacitance change</td> <td>≤ ±30% 初始值以內 ≤ ±30% of initial measured value</td> </tr> <tr> <td>漏電流值 Leakage</td> <td>≤ 初始規定值 ≤ Initial specified value</td> </tr> <tr> <td>損耗角正切值 Dissipation factor</td> <td>≤ 300% 初始規定值 ≤ 300% of initial specified value</td> </tr> </tbody> </table>	電容量變化率 Capacitance change	≤ ±30% 初始值以內 ≤ ±30% of initial measured value	漏電流值 Leakage	≤ 初始規定值 ≤ Initial specified value	損耗角正切值 Dissipation factor	≤ 300% 初始規定值 ≤ 300% of initial specified value																					
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高溫儲存 Shelf life	<p>+105°C, 1000小時，恢復16小時後，電容器應滿足下要求 After storage for 1000 hours at +105°C and then resumed 16 hours, the capacitor shall meet the following limits.</p> <table border="1"> <tbody> <tr> <td>電容量變化率 Capacitance change</td> <td>≤ ±30% 初始值以內 ≤ ±30% of initial measured value</td> </tr> <tr> <td>漏電流值 Leakage</td> <td>≤ 2倍初始規定值 ≤ 200% of initial specified value</td> </tr> <tr> <td>損耗角正切值 Dissipation factor</td> <td>≤ 300% 初始規定值 ≤ 300% of initial specified value</td> </tr> </tbody> </table>	電容量變化率 Capacitance change	≤ ±30% 初始值以內 ≤ ±30% of initial measured value	漏電流值 Leakage	≤ 2倍初始規定值 ≤ 200% of initial specified value	損耗角正切值 Dissipation factor	≤ 300% 初始規定值 ≤ 300% of initial specified value																					
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耐焊接熱 Resistance to soldering heat	<p>在250°C的條件下，電容器應在熱板上保持30秒，然後從熱板上取出電容器，讓其在溫室下恢復，電容器應滿足以下要求。 The capacitors shall be kept on the hot plate maintained at 250°C for 30 seconds. After removing from the hot plate and restored at room temperature, then meet the following requirement.</p> <table border="1"> <tbody> <tr> <td>電容量變化率 Capacitance change</td> <td>≤ ±10% 初始值以內 ≤ ±10% of initial measured value</td> </tr> <tr> <td>漏電流值 Leakage</td> <td>≤ 初始規定值 ≤ Initial specified value</td> </tr> <tr> <td>損耗角正切值 Dissipation factor</td> <td>≤ 初始規定值 ≤ Initial specified value</td> </tr> </tbody> </table>	電容量變化率 Capacitance change	≤ ±10% 初始值以內 ≤ ±10% of initial measured value	漏電流值 Leakage	≤ 初始規定值 ≤ Initial specified value	損耗角正切值 Dissipation factor	≤ 初始規定值 ≤ Initial specified value																					
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■ 尺寸及印字 Dimensions & Marking



Φ D	A	B	C	P	L	容
4.0	4.3	4.3	5.0	1.0	5.4	0.5~0.8
5.0	5.3	5.3	6.0	1.5	5.4	0.5~0.8
6.3	6.6	6.6	7.2	2.1	5.4	0.5~0.8
6.3	6.6	6.6	7.2	2.1	7.7	0.5~0.8
8.0	8.3	8.3	9.1	3.1	6.5	0.8~1.1
8.0	8.3	8.3	9.1	3.1	10.2	0.8~1.1
10.0	10.3	10.3	11.1	4.5	10.2	0.8~1.1

■ 標稱電容量、額定電壓、額定紋波電流與外形尺寸對應表 Nominal capacitance, rated voltage, rated ripple current and case size table

WV	6.3V		10V		16V		25V		35V		50V		63V		100V	
	D × Lmm	mA														
1											4 × 5.4	8.0				
2.2											4 × 5.4	12			6.3 × 5.4	15
3.3									4 × 5.4	14	4 × 5.4	14	5 × 5.4	14	6.3 × 5.4	22
4.7							4 × 5.4	14	4 × 5.4	15	4 × 5.4	14	5 × 5.4	17	6.3 × 5.4	23
10					4 × 5.4	17	4 × 5.4	15	4 × 5.4	15	5 × 5.4	17	6.3 × 5.4	26	6.3 × 7.7	38
22	4 × 5.4	22	4 × 5.4	21	4 × 5.4	21	5 × 5.4	26	5 × 5.4	28	6.3 × 5.4	43	6.3 × 5.4	52	8 × 10.2	100
33	4 × 5.4	23	4 × 5.4	23	5 × 5.4	29	5 × 5.4	30	6.3 × 5.4	45	6.3 × 7.7	63	8 × 10.2	116	10 × 10.2	136
47	4 × 5.4	26	5 × 5.4	31	6.3 × 5.4	33	6.3 × 5.4	49	6.3 × 5.4	54	6.3 × 7.7	66	8 × 10.2	125	8 × 10.2	148
68							6.3 × 5.4	55	6.3 × 7.7	80						
100	5 × 5.4	40	5 × 5.4	40	6.3 × 5.4	63	6.3 × 7.7	93	6.3 × 7.7	87	8 × 10.2	146				
150	6.3 × 5.4	52	6.3 × 5.4	55	6.3 × 7.7	93	8 × 10.2	125	8 × 10.2	178	10 × 10.2	200				
220	6.3 × 5.4	56	6.3 × 5.4	65	6.3 × 7.7	100	6.3 × 7.7	100	8 × 10.2	158	10 × 10.2	179				
330	6.3 × 7.7	108	6.3 × 7.7	110	8 × 6.5	110	10 × 10.2	230	10 × 10.2	230	10 × 10.2	250				
470	6.3 × 7.7	125	8 × 10.2	214	8 × 10.2	240	10 × 10.2	286	10 × 10.2	286						
680	8 × 10.2	214	10 × 10.2	277	10 × 10.2	322										
1000	8 × 10.2	235														
1500	10 × 10.2	310	10 × 10.2	320	10 × 10.2	347										

額定紋波電流 Rated ripple current (mA, 105°C, 120Hz)

■ 額定紋波電流的頻率係數 Frequency coefficient of rated ripple current

頻率 Frequency	50Hz	120Hz	300Hz	1KHz	10KHz
係數 Coefficient	0.70	1.00	1.17	1.36	1.50

注：以上所提供的設計及特性參數僅供參考，任何修改不做預先通知，如在使用上有疑問，請在採購前與我們聯絡，以便提供技術上的協助。

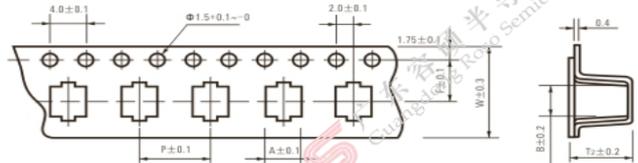
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貼片鋁電解電容器編帶形狀及尺寸要求

Taping of Chip Type Aluminum Electrolytic Capacitor And Size

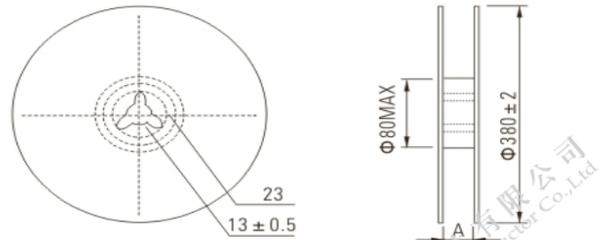
■ 編帶 Carrier Tape

ΦD×L	4.0×5.4	5.0×5.4	6.3×5.4	6.3×7.7	8.0×6.5	8.0×10.2	10.0×10.2	8.0×12.0	10.0×12.0
W	12.0	12.0	16.0	16.0	16.0	24.0	24.0	24.0	24.0
P	8.0	12.0	12.0	12.0	12.0	16.0	16.0	16.0	16.0
F	5.5	5.5	7.5	7.5	7.5	11.5	11.5	11.5	11.5
A	4.7	6.0	7.0	7.0	8.7	8.7	10.7	8.7	10.7
B	4.7	6.0	7.0	7.0	8.7	8.7	10.7	8.7	10.7
T ₂	5.8	5.8	5.8	8.3	7.0	11.0	11.0	12.8	12.8



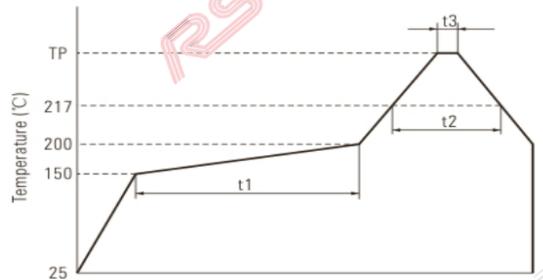
■ 編帶包裝卷盤 Reel

ΦD×L	卷裝數量 Quantity/Reel	盒裝數量 Quantity/Bag	A
4.0×5.4	2000 pcs	20000 pcs	12.5
5.0×5.4	1000 pcs	10000 pcs	12.5
6.3×5.4	1000 pcs	10000 pcs	16.5
6.3×7.7	1000 pcs	10000 pcs	16.5
8.0×6.5	1000 pcs	10000 pcs	16.5
8.0×10.2	500 pcs	5000 pcs	24.5
10.0×10.2	500 pcs	5000 pcs	24.5
8.0×12.0	400 pcs	4000 pcs	24.5
10.0×12.0	400 pcs	4000 pcs	24.5



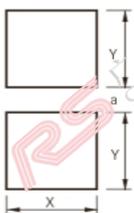
■ 焊接方法和再流焊允許範圍 Soldering method and allowable range of the reflow

Φ	Thickness (mm)	TP(°C)	t1	t2	t3	Reflow cycles
Φ4.0~Φ6.3	≥2.5	260±0	120s	90s	5s	1
Φ8.0~6.5/12.0	≥2.5	240±0	100s	60s	5s	1
Φ10.0~10.2/12.0	≥2.5	235±0	100s	40s	5s	1



- 溫度上升平均每秒每分鐘最多3°C
Average ramp-up rate is 3°C/second max.
- 溫度下降平均每分鐘最多6°C
Ramp-down rate is 6°C/second max.
- 從25°C上升到峰值溫度時間最長不能超過7分鐘
Time from 25°C to peak temperature is 7 minutes max.

■ 表面安裝推薦尺寸 Recommended land size



尺寸 Size	X	Y	a
Φ4.0	1.6	2.6	1.0
Φ5.0	1.6	3.0	1.4
Φ6.3	1.6	3.5	2.1
Φ8.0	2.5	3.5	3.0
Φ10.0	2.5	4.0	4.0

- 預熱進行的條件:不超過+150°C和120秒
Pre-heating shall be done less than +150°C and for 120 seconds.
- 電容器頂部的溫度不超過+260°C
The temperature at capacitor top shall not exceed +260°C
- 電容器頂部的溫度在+200°C以上時,持續時間不超過90秒
The duration for over +200°C at capacitor top shall not exceed 90 seconds
- 不同的再流焊方法,其溫度曲線不同。
The standard temperature profile differs by every reflow method.
- 如果電容器承受的條件與現流焊的允許範圍不同,請與我們聯繫。
If the conditions capacitors can bear are different, from the allowable range of reflow.

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