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：高频低阻 **RVE**

产品名称：贴片铝电解电容器

APPROVAL		
APPROVAL	CHECK	PREPARE
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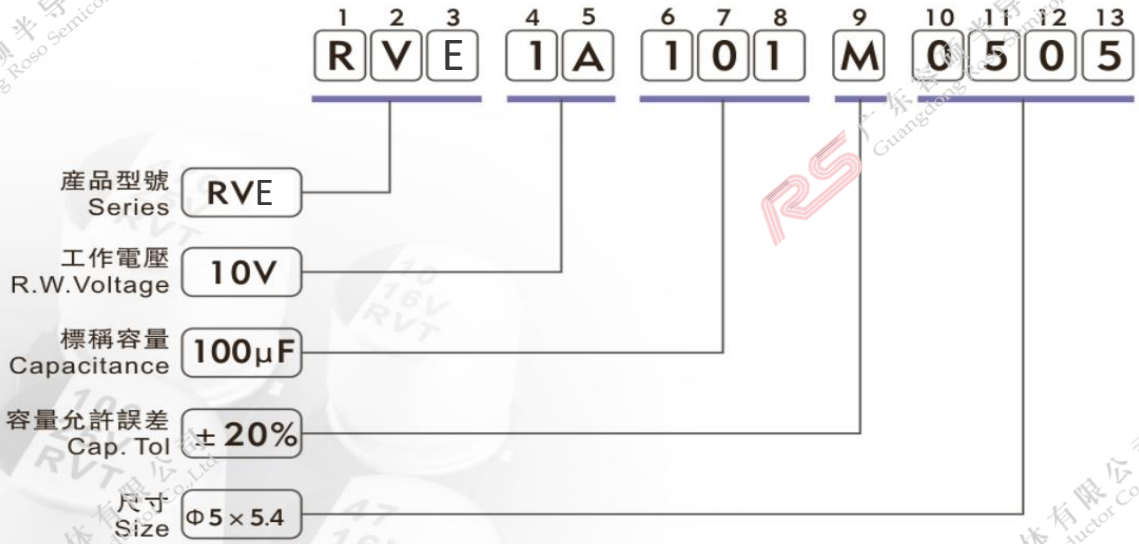
貼片鋁電解電容器代碼標志
Code Sign SMD(V-Chip) Aluminum Electrolytic Capacitor

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		1J		2A	2G
6 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: RVE 100μF 10V



RVE Series

A. 適用于回流焊
Reflow soldering available for reflow soldering.
B. 適用于高密度表面組裝
Available for high density surface mounting.
C. 低阻抗品
low impedance
D. 壽命：105℃, 2000小時
Lifetime: 105℃, 2000Hr long life product
E. ROHS. REACH指令已對應完畢
Adapted to the ROHS. REACH directive.

主要技術性能 Specifications

使用温度範圍 Operating temperature range	−55～＋105℃
額定電壓範圍 Rated voltage range	6.3V～50V DC
標稱電容量範圍 Nominal capacitance range	1～1500μF
標稱電容量允許偏差 Nominal capacitance tolerance	±20% (120Hz, 20℃)
漏電流(20℃) Leakage current	I≤0.01CV(μA) 或3 μA取較大者(2分鐘) Less than 0.01CV(μA) or 3 μAwhichever is greater (after 2 minutes)

損耗角正切值
Dissipation factor (120Hz 20℃)

Rated Voltage(V)	6.3	10	16	25	35	50
Tan δ (max)	0.26	0.20	0.16	0.14	0.12	0.12

温度特性(120Hz)
Temperature characteristics impedance ratio(120Hz)

Rated Voltage(V)	6.3	10	16	25	35	50
Z-25℃/Z+20℃	4	3	2	2	2	2
Z-55℃/Z+20℃	12	8	6	4	3	3

耐久性
Load life

+105℃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℃ and then resumed 16 hours, the capacitor shall meet the following limits.

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

高温儲存
Shelf life

+105℃，1000小時，恢復16小時後，電容器應滿足下要求
After storge for 1000 hours at +105℃ and resumed 16 hours, the dapacitor shall meet the following limits.

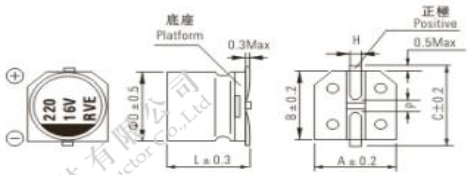
電容量變化率 Capacitance change	≤ ±30%初始值以內 ≤ ±30% of initial measured value
漏電流值 Leakage	≤2倍初始規定值 ≤ 200% of initial specified value
損耗角正切值 Dissipation factor	≤300%初始規定值 ≤ 300% of initial specified value

耐焊接熱
Resistance to soldering heat

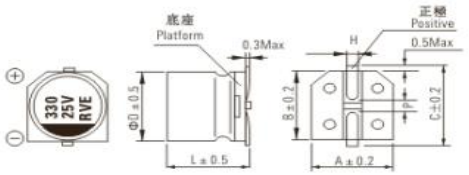
在250℃的條件下，電容器應在熱板上保持30秒，然後從熱板上取出電容器，讓其在温室下恢復，電容器應滿足以下要求。
The capacitors shall be kept on the hot plate maintained at 250℃ for 30 seconds. After removing from the hot plate and restored at room temperature, then meet the following requirement.

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

■ 尺寸及印字 Dimensions & Marking



Φ4.0~Φ6.3



Φ8.0~Φ10.0

mm

ΦD	A	B	C	P	L	H
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	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 / uF	6.3V			10V			16V			25V			35V			50V		
	D×Lmm	Z	mA	D×Lmm	Z	mA	D×Lmm	Z	mA	D×Lmm	Z	mA	D×Lmm	Z	mA	D×Lmm	Z	mA
1																4*5.4	5.0	30
2.2																4*5.4	5.0	30
3.3																4*5.4	5.0	30
4.7										4*5.4	3.2	60	4*5.4	3.2	60	5*5.4	3.0	50
10							4*5.4	3.2	60	4*5.4	3.2	60	4*5.4	3.2	60	6.3*5.4	2.0	70
										5*5.4	1.5	110	5*5.4	1.5	110			
22	4*5.4	3.2	60	4*5.4	3.2	60	5*5.4	1.5	110	5*5.4	1.5	110	5*5.4	1.5	110	6.3*5.4	2.0	70
				5*5.4	1.5	110				6.3*5.4	0.85	170	6.3*5.4	0.85	170	6.3*7.7	1.0	120
33	5*5.4	1.5	110	5*5.4	1.5	110	5*5.4	1.5	110	6.3*5.4	0.85	170	6.3*5.4	0.85	170	6.3*7.7	1.0	120
							6.3*5.4	0.85	170									
47	5*5.4	1.5	110	5*5.4	1.5	110	5*5.4	1.5	110	6.3*5.4	0.85	170	6.3*5.4	0.85	170	6.3*7.7	1.0	120
				6.3*5.4	0.85	170	6.3*5.4	0.85	170	6.3*7.7	0.60	230	6.3*7.7	0.60	230	8*10.2	0.60	300
100	5*5.4	1.5	110	6.3*5.4	0.85	170	6.3*5.4	0.85	170	6.3*7.7	0.60	230	6.3*7.7	0.60	230	8*10.2	0.60	300
	6.3*5.4	0.85	170	6.3*7.7	0.60	230	6.3*7.7	0.60	230				8*10.2	0.43	450	10*10.2	0.30	500
150	6.3*5.4	0.85	170	6.3*5.4	0.85	170	6.3*7.7	0.60	230	8*10.2	0.43	450	8*10.2	0.43	450	10*10.2	0.30	500
220	6.3*5.4	0.85	170	6.3*7.7	0.60	230	6.3*7.7	0.60	230	8*10.2	0.43	450	10*10.2	0.23	670	10*10.2	0.30	500
	6.3*7.7	0.60	230				8*10.2	0.43	450	10*10.2	0.23	670						
330	6.3*7.7	0.60	230	8*10.2	0.43	450	8*10.2	0.43	450	8*10.2	0.43	450	10*10.2	0.23	670			
										10*10.2	0.23	670						
470	8*10.2	0.43	450	8*10.2	0.43	450	8*10.2	0.43	450	10*10.2	0.23	670						
							10*10.2	0.23	670									
680	8*10.2	0.43	450	10*10.2	0.23	670	10*10.2	0.23	670									
1000	8*10.2	0.43	450	10*10.2	0.23	670												
	10*10.2	0.23	670															
1500	10*10.2	0.23	670															

額定紋波電流 Rated ripple current: (mA,105℃,100KHz); 阻抗值 Impedance: (Ω, 20℃, 100KHz)

■ 額定紋波電流的頻率系數 Frequency coefficient of rated ripple current

頻率 Frequency	50Hz	120Hz	300Hz	1KHz	≥10KHz
系數 Coefficient	0.64	0.80	0.85	0.93	1.00

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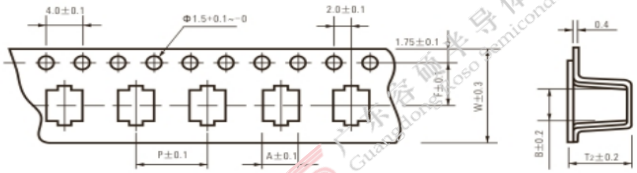
貼片鋁電解電容器編帶形狀及尺寸要求
Taping of Chip Type Aluminum Electrolytic Capacitor And Size

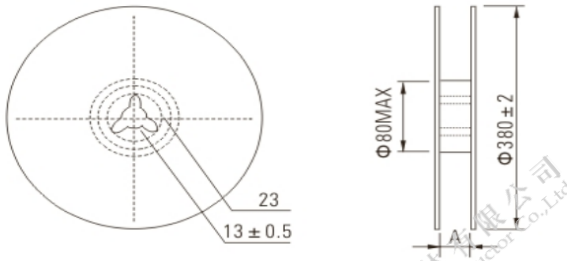
編帶 Carrier Tape

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



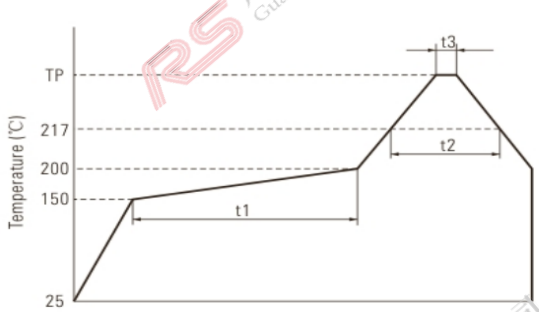
編帶包裝卷盤 Reel

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	10000pcs	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



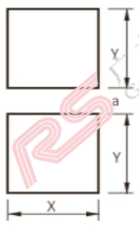
焊接方法和再流焊允許範圍 Slodering method and allowable range of the reflow

Size	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℃
  Average ramp-up rate is 3℃/second max.
- 溫度下降平均每分鐘最多6℃
  Ramp-down rate is 6℃/second max.
- 從25℃上升到峰值溫度時間最長不能超過7分鐘
  Time from 25℃ 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℃和120秒
  Pre-heating shall be done less than +150℃ and for 120 seconds.
- 電容器頂部的溫度不慶超過+260℃
  The temperature at capacitor top shall not exceed +260℃.
- 電容器頂部的温度在+200℃以上時，持續時間不超過90秒
  The duration for over +200℃ at capacitor top shall not exceed 90 seconds
- 不同的再流焊方法，其温度曲綫不同。
  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，請與我們聯系。
  If the conditions capacitors can bear are different, from the allowable range of reflow.

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