

### 特點：

1. 超小型化产品
2. 具备三层电极结构
3. 高可靠性、温度范围广
4. 适用于自动贴片机安装

### FEATURES

1. Superviniature size.
2. Three layers of electrodes.
3. High reliability and wide temperature range.
4. Tape package for automatic insertion machine.

### 產品型號代號 ORDERING CODE

例 Ex. :      TCB      0J      227      M      B      A      R  
                   ①      ②      ③      ④      ⑤      ⑥      ⑦

### ① 類別碼 TYPE CODE

### ② 電壓碼 RATED VOLTAGE CODE

代碼 Symbol	電壓 DC Rated Voltage	代碼 Symbol	電壓 DC Rated Voltage
0E	2.5	1C	16
0G	4	1D	20
0J	6.3	1E	25
1A	10	1V	35

### ③ 容量容值碼 CAPACITANCE CODE

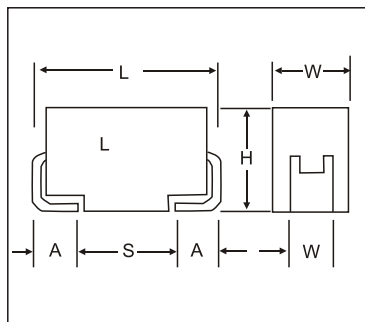
代碼 Symbol	Capacitance(uF)	Pico Farad(pF)	Symbol	Capacitance(uF)	Pico Farad(pF)
105	1.0	10x10 <sup>5</sup>	684	0.68	68x10 <sup>4</sup>
106	10.0	10x10 <sup>6</sup>	475	4.7	47x10 <sup>5</sup>

## 片式钽电容 CHIP TANTALUM CAPACITORS

### ④ 容量误差码 CAPACITANCE TOLERANCE CODE

代碼 Symbol	Tolerance(%)	Symbol	Tolerance(%)
K	±10	M	±20

### ⑤ 尺寸碼 CASE SIZE CODE =MM(INCHES)



For Part Marking See Page 50

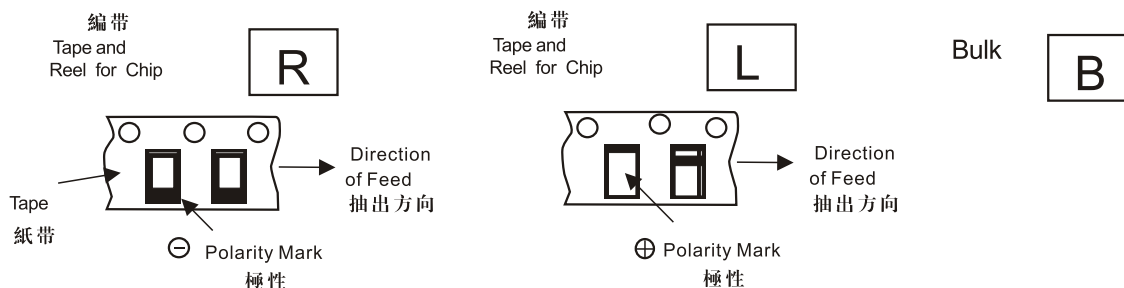
代碼 Code	ELA Code	L±0.2(0.008)	W+0.2(0.008) -0.1(0.004)	H+0.2(0.008) -0.1(0.004)	W1±0.2(0.008)	A+0.3(0.012) -0.2(0.008)	8 Min.
A	3216	3.2(0.126)	1.6(0.063)	1.6(0.063)	1.2(0.047)	0.8(0.031)	1.1(0.043)
B	3528	3.5(0.138)	2.8(0.110)	1.9(0.075)	2.2(0.087)	0.8(0.031)	1.4(0.055)
C	6032	6.0(0.236)	3.2(0.126)	2.6(0.102)	2.2(0.087)	1.3(0.051)	2.9(0.114)
D	7343	7.3(0.287)	4.3(0.169)	2.9(0.114)	2.4(0.094)	1.3(0.051)	4.4(0.173)
E	7343H	7.3(0.287)	4.3(0.169)	4.1(0.162)	2.4(0.094)	1.3(0.051)	4.4(0.173)
V	7361	7.3(0.287)	6.1(0.240)	3.45±0.3 (0.136±0.012)	3.1(0.120)	1.4(0.055)	4.4(0.173)

W<sub>1</sub> Dimension Applies To The Termination Width For A Dimensional Area Only.

### ⑥ 包裝碼 PACKING CODE

代碼 Code	包裝規格 Packing Code
A	7 inches
C	13 inches

### ⑦ 包裝極性 PACKING POLARITY CODE



### 主要性能參數 TECHNICAL SPECIFICATIONS

技術參數 Technical Data	所有技术参数均在室温25℃下测定 All technical data relate to an ambient temperature of +25℃								
容量範圍 Capacitance Range	0,1uF to 680uF								
容量誤差 Capacitance Tolerance	±10%; ±20%								
額定電壓 Rated Voltage(VP)	2	4	6.3	10	16	20	25	35	50
邏輯電壓 Category Voltage(VC) ≤+85℃	1.3	2.7	4	7	10	13	17	23	33
最高耐壓 Surge Voltage(VS) ≤+125℃	2.7	5.2	8	13	20	26	32	46	65
最高耐壓 Surge Voltage(VS) ≤+85℃	1.7	3.2	5	8	12	16	20	28	40
溫度範圍 Temperature Range	≤+125℃								
可靠性 Reliability	在溫度85℃溫度60%環境下，用0.1Ω/V條件測試每1000小時容量變化為1% 1% per 1000hours at 85℃ with 0.1Ω/V series impedance, 60% confidence level								
品質標準 Qualification	CECC 30801-005 issue 2 EIA 535BAAC								

## ■ 片式钽电容 CHIP TANTALUM CAPACITORS

 容量及電壓對照表 CAPACITANCE AND RATED VOLTAGE, VR(VOLTAGE CODE)  
 RANGE (LETTER DENOTES CASE SIZE)

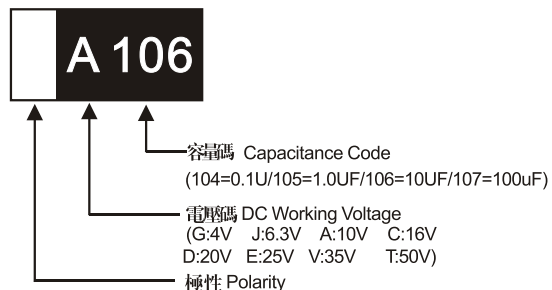
容量 Capacitance		額定電壓 Rate voltage (V <sub>r</sub> ) to 85°C								
μF	Code	2V(F)	4V(G)	6.3V(J)	10V(A)	16V(C)	20V(D)	25V(E)	35V(V)	50V(T)
0.10 0.15 0.22	104 154 224								Ⓐ Ⓐ Ⓐ	Ⓐ Ⓐ Ⓑ Ⓐ Ⓑ
0.33 0.47 0.67	334 474 684						Ⓐ	A A	Ⓐ Ⓐ/Ⓑ Ⓐ/Ⓑ	Ⓑ Ⓒ Ⓒ
1.0 1.5 2.2	105 155 225			Ⓐ	Ⓐ Ⓐ	Ⓐ Ⓐ A/Ⓑ	A A A/Ⓑ	A A/Ⓑ Ⓐ/Ⓑ	A/Ⓑ A/Ⓑ/Ⓒ B/Ⓒ	B/Ⓒ C/Ⓒ C/Ⓒ
3.3 4.7 6.8	335 475 685			Ⓐ Ⓐ Ⓐ/Ⓑ	Ⓐ A/Ⓑ A/Ⓑ	A/Ⓑ A/Ⓑ A/Ⓑ/Ⓒ	A/Ⓑ A/Ⓑ/Ⓒ B/Ⓒ	B/Ⓒ B/Ⓒ B/Ⓒ	B/Ⓒ B/Ⓒ/Ⓒ C/Ⓒ	C/Ⓒ D D
10 15 22	106 156 226		Ⓐ Ⓐ/Ⓑ Ⓐ/Ⓑ	Ⓐ/Ⓑ A/Ⓑ/Ⓒ A/Ⓑ/Ⓒ	A/Ⓑ/Ⓒ A/Ⓑ/Ⓒ A/Ⓑ/Ⓒ/Ⓓ	A/Ⓑ/Ⓒ B/Ⓒ B/Ⓒ/Ⓒ	B/Ⓒ B/Ⓒ/Ⓓ B/Ⓒ/Ⓒ	C/Ⓒ C/Ⓒ C/Ⓒ	C/Ⓒ C/Ⓒ C/Ⓒ	E
33 47 68	336 476 686	A Ⓐ	A/Ⓑ A/Ⓑ Ⓑ/Ⓒ	A/Ⓑ/Ⓒ B/Ⓒ/Ⓒ B/Ⓒ/Ⓒ	B/Ⓒ/Ⓒ B/Ⓒ/Ⓒ C/Ⓒ	B/Ⓒ/Ⓒ C/Ⓒ Ⓒ/Ⓒ/Ⓒ	C/Ⓒ Ⓒ/Ⓒ Ⓒ/Ⓒ	D/Ⓒ D E/Ⓒ	D/Ⓒ D E	
100 150 220	107 157 227	B Ⓑ	B/Ⓒ B C/Ⓒ	B/Ⓒ/Ⓒ C/Ⓒ C/Ⓒ/Ⓒ	C/Ⓒ C/Ⓒ/Ⓒ D/Ⓒ	D/Ⓒ D Ⓒ/Ⓒ/Ⓒ	D/Ⓒ/Ⓒ Ⓒ/Ⓒ Ⓒ/Ⓒ			
330 470 680	337 477 687	Ⓒ	Ⓒ E D/Ⓒ	Ⓒ/Ⓒ/Ⓒ D/Ⓒ/Ⓒ E/Ⓒ	D/Ⓒ/Ⓒ E/Ⓒ Ⓒ	Ⓒ/Ⓒ				
1000 1500	108 158	Ⓓ Ⓒ	Ⓒ/Ⓒ	Ⓒ						

■ 片式钽电容 CHIP TANTALUM CAPACITORS

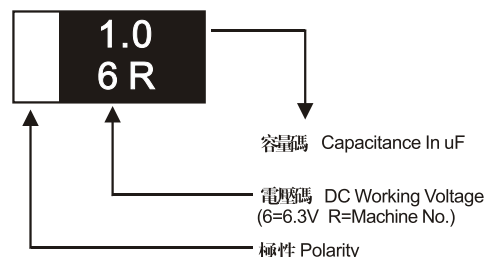
► 包装形式Packaging

● 等级Marking

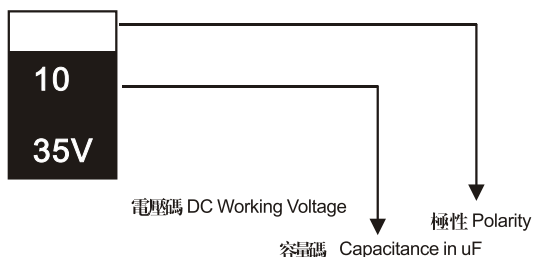
► A级 A Case



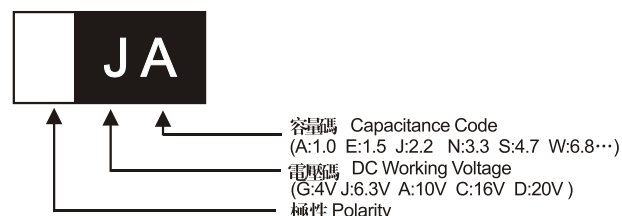
► B级 B Case



► CD级 C,D Case



► P,A级 P,A Case



容值範圍 Capacitance Range	數碼1 1 DIGIT	數碼2 2 DIGIT
< 1.0uf	A Small Letter	A Small Letter
1.0uf ≤ cap < 10uf	A Capital Letter	A Small Letter
≥ 10uf	A Capital Letter	A Capital Letter

對照碼 REFERENCE CODE

uF \ V	4	6.3	10	16
0.47				GS
0.68				CW
1.0			AA	CA
1.5		JE	AE	
2.2		JJ	AJ	
3.3	GN		AN	
4.7		JS	AS	
6.8		JW		
10	GA	JA	AA7	
15	GE			
22	GJ			



片式钽电容 CHIP TANTALUM CAPACITORS

電壓 Rated Volt	容量 Rated Capacitance (uA)	等級 Case code	電流 Leakage Current (uA)	誤差 Dissipation Factor(%@ 120Hz)	阻值 ESR (Ω @100KHz)
6.3V	47	A	1.2	12	2.5
	68	A	1.7	18	2.5
	100	B	2.5	14	0.9
	150	B	3.8	14	0.7
	220	B	5.5	18	0.7
	330	C	8.3	16	0.7
	470	C	11.8	18	0.5
	470	D	11.8	12	0.3
	4.7	A	0.5	6	4.0
	6.8	A	0.5	6	3.5
	10	A	0.5	6	3.0
	15	A	0.6	6	2.9
	22	A	0.9	8	2.5
	22	B	0.9	6	1.9
	33	A	1.3	8	2.5
	33	B	1.3	6	1.4
	47	A	1.9	18	2.5
	47	B	1.9	8	1.0
	68	A	2.7	24	2.5
	68	B	2.7	8	0.8
	100	A	4.0	30	2.0
	100	B	4.0	14	0.9
	150	B	6.0	16	0.7
	220	B	8.8	18	0.7
	220	C	8.8	12	0.7
330	C	13.2	14	0.7	
330	D	13.2	10	0.5	
470	D	18.8	16	0.3	
680	D	27.2	18	0.3	
1	A	0.5	4	7.5	
1.5	A	0.5	6	6.0	
2.2	A	0.5	6	5.0	
3.3	A	0.5	6	4.5	
4.7	A	0.8	6	4.0	
6.8	A	1.1	6	3.5	
6.8	B	1.1	6	2.5	
10	A	1.6	6	3.0	
10	B	1.6	6	2.0	
15	A	2.4	10	3.0	
15	B	2.4	8	2.0	
22	B	3.5	8	1.9	
22	C	3.5	8	1.1	
33	B	5.3	8	1.9	
33	C	5.3	8	1.1	
47	C	7.5	8	0.9	
47	D	7.5	6	0.7	
68	D	10.9	8	0.6	
100	D	16.0	10	0.6	
1	A	0.5	4	7.5	
1.5	A	0.5	6	6.3	
2.2	A	0.5	6	5.0	
3.3	A	0.7	6	4.5	
4.7	A	0.9	6	4.0	
4.7	B	0.9	6	2.8	
6.8	A	1.4	6	3.5	
6.8	B	1.4	6	2.5	
10	A	2.0	8	3.5	
10	B	2.0	6	2.1	
15	C	3.0	6	1.2	
22	C	4.4	8	1.1	
33	C	6.6	8	1.1	
33	D	6.6	6	0.7	
47	D	9.4	8	0.7	

電壓 Rated Volt	容量 Rated Capacitance (uA)	等級 Case code	電流 Leakage Current (uA)	誤差 Dissipation Factor(%@ 120Hz)	阻值 ESR (Ω @100KHz)
6.3V	2.2	A	0.5	6	5.0
	3.3	A	0.5	6	4.5
	4.7	A	0.5	6	4.0
	6.8	A	0.5	6	3.5
	10	A	0.6	6	3.0
	15	A	0.9	8	2.9
	15	B	0.9	6	2.0
	22	A	1.4	8	2.5
	22	B	1.4	6	1.9
	33	A	2.1	8	2.5
	33	B	2.1	8	1.4
	47	A	3.0	18	2.5
	47	B	3.0	8	1.0
	68	B	4.3	8	1.0
	68	C	4.3	8	0.8
	100	B	6.3	14	0.9
	100	C	6.3	10	0.7
	150	B	9.5	18	0.9
	150	C	9.5	12	0.7
	220	C	13.9	14	0.7
	220	D	13.9	10	0.5
	330	D	20.8	14	0.5
	470	D	29.6	16	0.3
	2.2	A	0.5	6	5.0
	3.3	A	0.5	6	4.5
4.7	A	0.5	6	4.0	
6.8	A	0.7	6	3.5	
10	A	1.0	6	3.0	
10	B	1.0	6	2.1	
15	A	1.5	8	2.9	
15	B	1.5	6	2.0	
22	A	2.2	12	2.5	
22	B	2.2	8	1.9	
33	A	3.3	18	2.5	
33	B	3.3	8	1.4	
33	C	3.3	6	1.1	
47	B	4.7	8	1.0	
47	C	4.7	8	0.9	
68	C	6.8	8	0.8	
68	D	6.8	6	0.6	
100	C	10.0	10	0.7	
100	N	10.0	10	0.6	
150	C	15.0	14	0.7	
150	D	15.0	10	0.6	
220	D	22.0	12	0.5	
330	D	33.0	18	0.5	
0.68	A	0.5	4	7.6	
1	A	0.5	4	7.5	
1.5	A	0.5	6	6.7	
2.2	A	0.6	6	6.3	
3.3	A	0.8	6	6.0	
3.3	B	0.8	6	3.1	
4.7	A	1.2	8	4.0	
4.7	B	1.2	6	2.8	
6.8	C	1.7	6	1.8	
10	C	2.5	6	1.5	
15	C	3.8	8	1.2	
22	D	5.5	6	0.7	
33	D	8.3	8	0.7	
47	D	11.8	8	0.7	
0.47	A	0.5	4	10.0	
0.68	A	0.5	4	7.6	
1	A	0.5	4	7.5	
1.5	A	0.5	6	7.5	
2.2	A	0.8	6	7.0	
2.2	B	0.8	6	3.8	
3.3	B	1.2	6	3.5	
4.7	C	1.6	6	1.8	
6.8	C	2.4	6	1.8	
10	C	3.5	6	1.6	
15	D	5.3	6	0.7	
22	D	7.7	8	0.7	