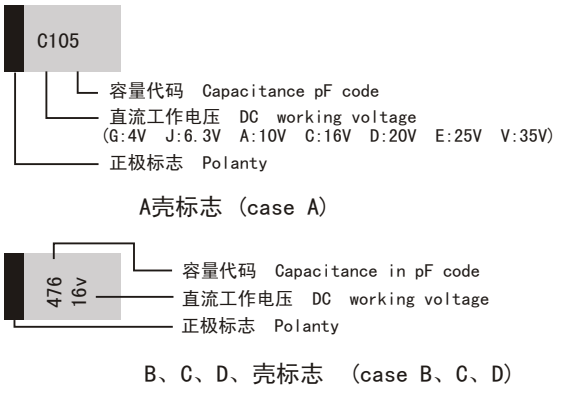
■ CA45型 片式固体电解质钽电容器
SERIES CA45 CHIP SOLID TANTALUM ELECTROLYTIC CAPACITORS

● CA45 型产品简介 FEATURES

- 模压片式固体电解质钽电容器
- 适用于蜂窝电话、笔记本电脑、摄影、工业等各种表面安装电路及其它电子类产品

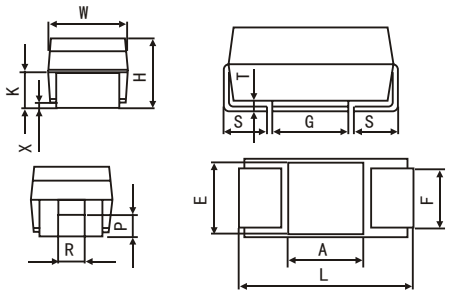
- Molded chip solid tantalum electrolytic capacitor
- Used for cellular Telephones, personal computers Photographs. It's used in SMT circuit and others electronic product applications.



A壳标志 (case A)

B、C、D、壳标志 (case B、C、D)

● 产品外形尺寸图



● 产品外形尺寸 DIMENSIONS

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壳号Case size	L	W	H	k±0.2	F±0.1	S±0.3	X	P	R	T	G	E
P	3.2±0.2	1.6±0.2	1.2±0.2	0.9	1.2	0.8	0.10±0.10	0.4	0.4	0.13	1.2	1.5
A	3.2±0.2	1.6±0.2	1.6±0.2	0.9	1.2	0.8	0.10±0.10	0.4	0.4	0.13	1.2	1.5
B	3.5±0.2	2.8±0.2	1.9±0.2	1.1	2.2	0.8	0.10±0.10	0.5	1.0	0.13	1.5	2.6
C	6.0±0.2	3.2±0.2	2.5±0.2	1.4	2.2	1.3	0.10±0.10	0.9	1.0	0.13	3.0	3.0
D	7.3±0.2	4.3±0.3	2.8±0.3	1.5	2.4	1.3	0.10±0.10	0.9	1.0	0.13	4.3	4.1
E	7.3±0.2	4.3±0.3	4.0±0.3	1.5	2.4	1.3	0.10±0.10	0.9	1.0	0.13	4.3	4.1

● 尺寸规格、额定电压、浪涌电压、降额电压及标称容量
STANDARD SIZE, RATED VOLTAGE, SURGE VOLTAGE AT 85℃ AND DERATED VOLTAGE AT 125℃

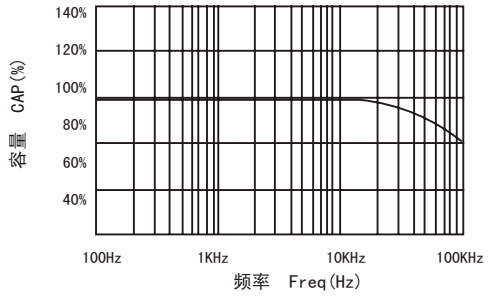
额定电压 Rated voltage(v)		4		6.3		10		16		20		25		35		50	
		0G		0J		1A		1C		1D		1E		1V		1H	
浪涌电压 85℃ surge voltage(v)		5.2		8		13		20		26		32		46		65	
降额电压(125℃) 125℃ CD Derated voltage(v)		2.5		4		6.3		10		13		16		22		32	
		外壳代号 (case code)															
Cap/(µF)	Code	STD	EXT	STD	EXT	STD	EXT	STD	EXT	STD	EXT	STD	EXT	STD	EXT	STD	EXT
0.1	104													A	P	A	
0.15	154												P	A	P	B	A
0.22	224												P	A	P	B	A/B
0.33	334											A	P	A	P	B	B
0.47	474									A	P	A	P	B	A	C	B/C
0.68	684							A	P	A	P	B	A	B	A	C	B/C
1	105					A	P	A	P	A	A	B	A	B	A/B	C	B/C
1.5	155			A	P	A	P	A	P	B	A	B	A	C	A/B	D	C
2.2	225	A	P	A	P	A	P	B	A	B	A/B	C	A/B	C	A/B/C	D	C/D
3.3	335	A	P	A	P	B	A	B	A	B	A/B	C	A/B/C	C	B/C	D	C/D
4.7	475	A	P	B	A	B	A	B	A	C	A/B/C	C	B/C	D	B/C	D	D
6.8	685	B	A	B	A	B	A	C	A/B	C	B/C	D	B/C	D	C/D		D
10	106	B	A	B	A	C	A/B	C	A/B	D	B/C	D	C	D	C/D/E		D/E
15	156	B	A	C	A/B	C	A/B/C	C	B/C	D	B/C/D	D	C/D		C/D		E
22	226	C	A/B	C	A/B	C	A/B/C	D	B/C	D	B/C/D						
33	336	C	A/B	D	A/B/C	D	B/C	D	B/C								
47	476	D	A/B/C	D	B/C	D	B/C		C/D								
68	686	D	B/C	D	B/C		C/D		C/D								
100	107	D	C	D	B/C		C/D										
150	157		B/C/D		C/D												
220	227		B/C/D		C/D/E												

■ CA45产品特性表
SPECIFICATIONS

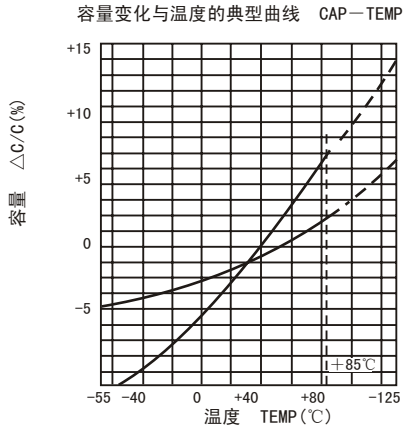
<table>
<tr><th>项 目 Item</th><th colspan="3">主要特性 Performance Characteristics</th></tr>
<tr><td>使用温度范围
Operating Temperature Range</td><td colspan="3">-55℃～＋125℃ (>+85℃降额使用)
-55℃～＋125℃ (applied derating voltage at greater than +85℃)</td></tr>
<tr><td>标称容量允许偏差
Capacitance Tolerance</td><td colspan="3">±20%(M),±10%(K) at 120Hz +25℃</td></tr>
<tr><td>损耗角正切值(tgδ)
Dissipation Factor</td><td colspan="3">测试频率120Hz Test frequency 120Hz
0.1~1μF 4%Max 1.5～68μF 6% Max. 100μF~ 8% Max.</td></tr>
<tr><td>漏 电 流
Leakage current</td><td>施加额定电压1分钟：
I≤0.01CV或0.5μA(取较大者)25℃
After 1minute's application of rated voltage, leakage current at 25℃ is not more than 0.01CV or 0.5μA, whichever is greater.</td><td>施加额定电压1分钟：
I≤0.1CV或5μA(取较大者)85℃
After 1minute's application of rated voltage, leakage current at 85℃ is not more than 0.1CV or 5μA, whichever is greater.</td><td>施加额定电压1分钟：
I≤0.125CV或6.3μA(取较大者)
125℃
After 1minute's application of rated voltage, leakage current at 125℃ is not more than 0.125CV or 6.3μA, whichever is greater.</td></tr>
<tr><td>标称容量随温度变化
Capacitance Change by Temperature</td><td colspan="3">±10%Max. (+85℃) ±12%Max. (+125℃)
±10%Max. (－55℃)</td></tr>
<tr><td>浪涌电压
Surge Voltage</td><td colspan="3">在85℃环境中，电容器接33Ω电阻，加上浪涌电压，以30秒开，30秒关为一个周期，共经1000个周期实验后，电容器的性能符合下列要求：
After application of Surge Voltage in series with a 33Ω resister at the rate voltage of 30 seconds ON, 30 seconds OFF, for 1000 successive test cycles at 85℃, capacitors meet the characteristics requirements listed below.
容量变化 Capacitance Change：初始值的±5%以内 Within ±5% of initial value
损耗角正切值 Dissipation Factor：不大于初始规定值 Initial specified value or less
漏 电 流 Leakgae Current：不大于初始规定值 Initial specified value or less</td></tr>
<tr><td>耐焊接热
Resistance to Soldering Heat</td><td colspan="3">将电容器端子线浸入260±5℃的锡液中距至本体2～2.5mm，经3±0.5秒后，电容器的性能符合下列要求：
After immersing the bottom parts of capacitor bodies by 2～2.5mm in a solder pot at 260±5℃ for 3±0.5 seconds
容量变化 Capacitance Change：初始值的±3%以内 Within ±3% of initial value
损耗角正切值 Dissipation Factor：不大于初始规定值 Initial specified value or less
漏 电 流 Leakgae Current：不大于初始规定值 Initial specified value or less</td></tr>
<tr><td>耐湿性
Humidity Resistance</td><td colspan="3">在40℃，相对湿度为90～95% R.H.，经过500小时后(不充电压)，电容器的性能符合下列要求：
At 40℃，90～95% R.H.，For 500hours (No voltage applied).
容量变化 Capacitance Change：初始值的±10%以内 Within ±10% of initial value
损耗角正切值 Dissipation Factor：不大于初始规定值 Initial specified value or less
漏 电 流 Leakgae Current：不大于初始规定值 Initial specified value or less</td></tr>
<tr><td>高温负荷特性
Load Life</td><td colspan="3">电容器接上3Ω电阻，在＋85℃环境中施加额定工作电压2000小时后，或者在＋125℃环境中施加额定工作电压2000小时后，电容器的性能符合下列要求： After 2000 hour's application of rated voltage in series with a 3Ω resistor at 85℃ or derated voltage in series with a 3Ω resistor at 125℃, capacitance meet the characteristics requirements listed below.
容量变化 Capacitance Change：初始值的±10%以内 Within ±10% of initial value
损耗角正切值 Dissipation Factor：不大于初始规定值 Initial specified value or less
漏 电 流 Leakgae Current：不大于初始规定值 Initial specified value or less</td></tr>
</table>

- 特性曲线图　CHARACTERISTICS CURVE

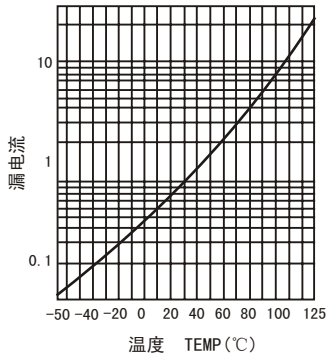
容量与频率的典型曲线　CAP－FREQ



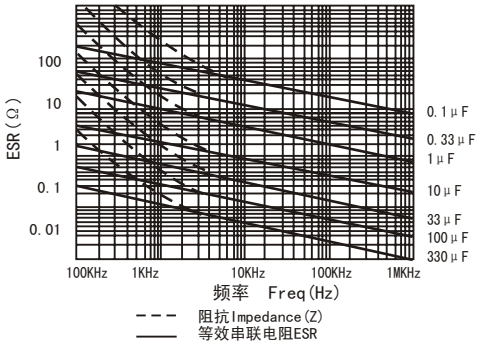
容量变化与温度的典型曲线　CAP－TEMP



漏电流与温度的关系



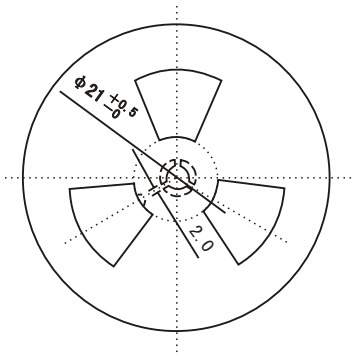
阻抗和ESR与频率的典型曲线

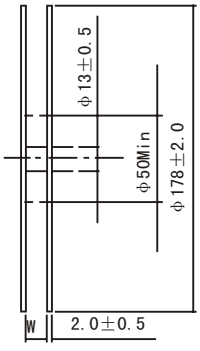


- CA45产品编带包装　TAPE PACKING

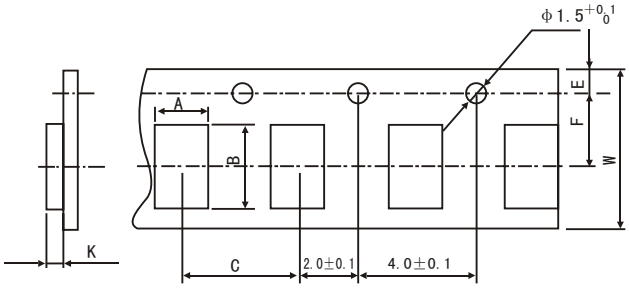
卷盘尺寸 TAPE REEL DIMENSIONS

外壳号 Case size	W±1.5 (mm)	每卷电容数量(支) Qty. /Reel(φ178mm)
P　A　B	10.0	2000
C　D	14.0	500





编带包装　TAPE PACKING



mm

外壳号 Case size	A±0.1	B±0.1	C±0.1	E±0.1	F±0.1	W±0.3	K±0.1
P	1.8	3.4	4.0	1.75	3.5	8.0	1.3
A	1.8	3.4	4.0	1.75	3.5	8.0	1.8
B	3.1	3.8	4.0	1.75	3.5	8.0	2.2
C	3.57	6.37	8.0	1.75	5.5	12.0	2.9
D	4.6	7.6	8.0	1.75	5.5	12.0	3.3