Dongguan Xuansn Electronic Tech Co.,Ltd

PRODUCT SPECIFICATION

To：

CATEGORY： Aluminum electrolytic capacitor

DESCRIPTION： 222UF16V D13*L21mm

MPN No.: XXS222M1CD13L21B

Customer Part No.

DATE：

SUPPLIER			CUSTOMER		
APPROVER	AUDITOR	DESIGNER	APPROVER	AUDITOR	TESTING
Yaojun Lv	Xianchen Liu	Xinda Zong			

Dongguan Xuansn Electronic Tech Co.,Ltd

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TEL:0769-8166 8821 FAX:0769-2282 6791

Confirmed,please sign back

How to order

MPN:	XXS	222	M	1C	D13	L21	B
	①	②	③	④	⑤	⑥	⑦

1. Series

Code	Series
XXS	High reliability

2. Rated Capacitance

Code	Capacitance/μf
222	2200

3. Tolerance

Code	Tolerance(%)
M	±20%

4. Rated Voltage

Code	Voltage/V
1C	16

5. Diameter

Code	Diameter/mm
D13	13

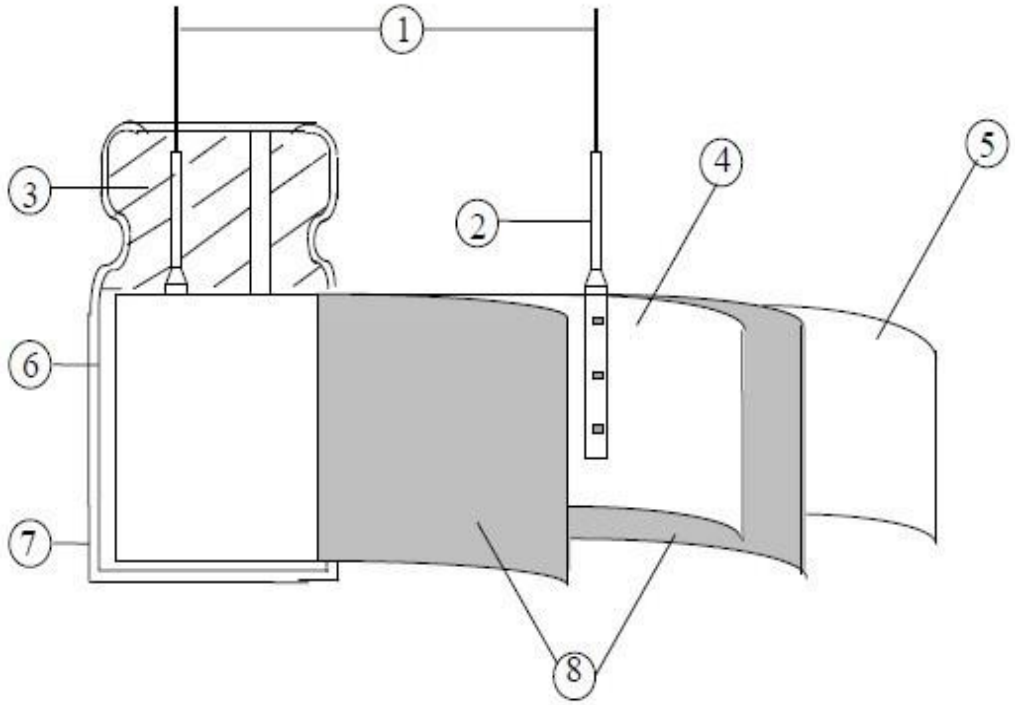
6. Leight

Code	Leight/mm
L21	21

7. Packaging

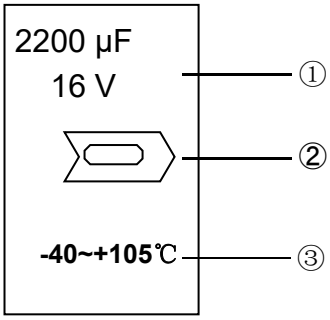
Code	Packaging
B	Bulk

一. Construction



NO	Component	Material
1	Lead Line	Tinned CP wire (Pb Free)
2	Terminal	Aluminum wire
3	Sealing Material	Rubber
4	Al-Foil (+)	Formed aluminum foil
5	Case	Aluminum case
6	Sleeve	PET
7	Separator	Electrolyte paper
8	Al-Foil (-)	Etched aluminum foil

Marking



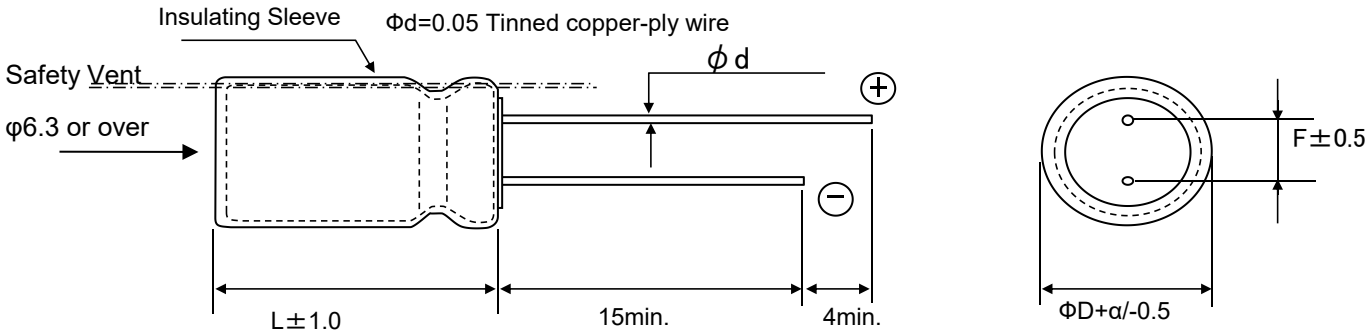
Rated voltage and standard capacity

Polarity, negative

Operating temperature

三. Dimensions

Model	2200UF16V	Size	D13*L21mm
Lead Pitch	5 ±0.5mm	Lead DIA	0.6 ±0.05mm



Unit(mm)

φD+0.5Max	L±1.0	F±0.5	d±0.05
13	21	5	0.6

Item	Capacitance Tolerance 20 ℃	Tanδ 120Hz	Leakage Current((μA)	Ripple Current (mArms) 100KHz 105 ℃	Impedance (Ω) 100KHz20℃	Operating Temp. (℃)	Surge Valtage (V)
No.	**-20%~+20%**	**0.20**	**352**	**1411**	/	**-40~+105℃**	**20**
1	2108.11	0.0666	96.371				
2	2117.39	0.0669	96.795				
3	2115.59	0.0645	96.713				
4	2110.62	0.0648	96.485				
5	2102.41	0.0655	96.110				
6	2123.04	0.0669	97.053				
7	2106.35	0.0642	96.290				
8	2099.42	0.0646	95.973				
9	2103.55	0.0627	96.162				
10	2117.30	0.0654	96.791				
MAX	2117.39	0.0669	97.053				
MIN	2102.41	0.0627	95.973				
AVE	2110.82	0.0652	96.474				

四. Capacitance characteristics

1.Properties of the ripple current

①.Frequency coefficient

Freq.(HZ) / Cap(μF)	50	120	1K	10K	≥100K
2200	/	0.75	0.9	0.95	1

②.Temperature coefficient

Temperature(℃)	40	60	70	85	105
Coefficient	2.4	2.1	1.78	1.65	1

2. Rated Value And Characteristic

Item	Performance	Test method
Leakage current	Whichever is smaller (after 2 min)	Resistance range: 1000±10Ω Applied voltage: rated voltage Measuring time: 2 min
Static Capacitance	-20%~+20%	Measuring frequency: 120HZ±20% Measuring voltage: ≤0.5Vrms,1.5~2.0VDC
Dissipation Factor (tanδ)	0.2 and under	Same as condition of capacitor
Stability at low temperature	Impedance ratio at 120HZ:	

WV	16
Z(-25℃)/Z(+20℃)	3
Z(-40℃)/Z(+20℃)	6

<table>
<tr><td rowspan="4">High temperature load life</td><td>Leakage current</td><td>≤the value specified in table 1</td><td rowspan="4">Test temp: 105 ± 2℃

Applied voltage: rated voltage

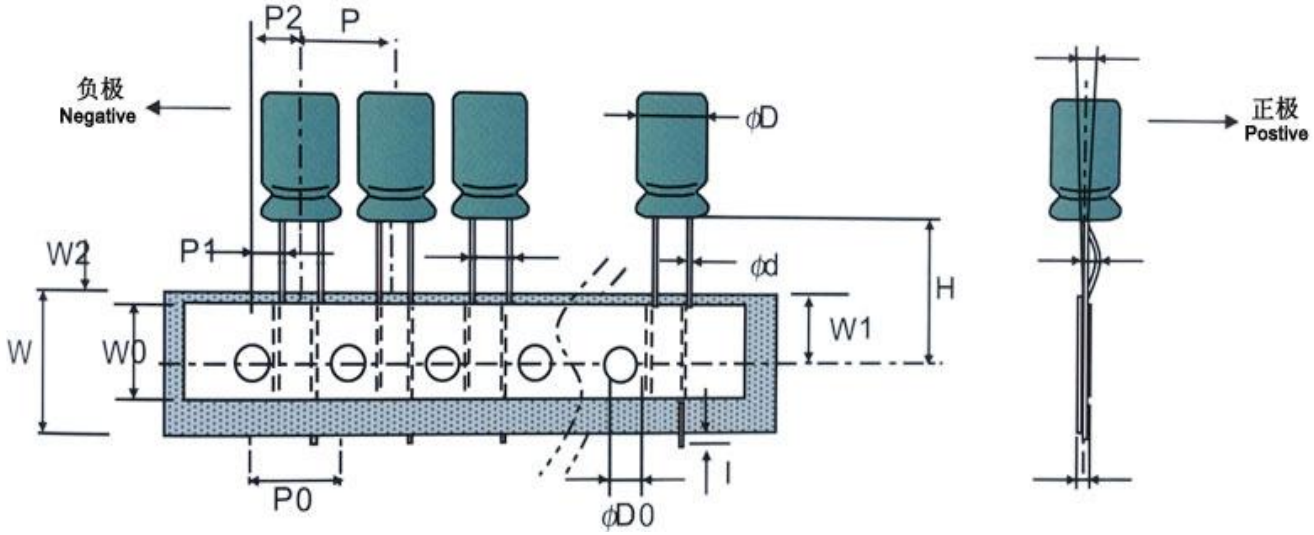
Test time: 2000 hours (+100/-0 hours)</td></tr>
<tr><td>Cap. Change</td><td>≤±20% of initial value</td></tr>
<tr><td>Dissipation Factor</td><td>≤200% of value specified in table 1</td></tr>
<tr><td>Appearance</td><td>No remarkable abnormality</td></tr>
<tr><td rowspan="4">High temperature no load characteristics</td><td>Leakage current</td><td>≤the value specified in table 1</td><td rowspan="4">Test temp: 105 ± 2℃

No voltage applied

Test time:1000 hours (+24/-0 hours)</td></tr>
<tr><td>Cap. Change</td><td>≤±20% of initial value</td></tr>
<tr><td>dissipation Factor</td><td>≤200% of value specified in table 1</td></tr>
<tr><td>Appearanc）</td><td>No remarkable abnormality</td></tr>
<tr><td rowspan="6">Surge voltage</td><td colspan="2">Item</td><td>Performance</td></tr>
<tr><td colspan="2">Leakage current</td><td>≤the initial specified value</td></tr>
<tr><td colspan="2">Cap. Change</td><td>≤±20% against value before test</td></tr>
<tr><td colspan="2">Dissipation Factor</td><td>≤the initial specified value</td></tr>
<tr><td colspan="2">Appearance</td><td>No remarkable abnormality</td></tr>
<tr><td colspan="3">Test temp:15~35℃
Test voltage,surge voltage specified in 2 voltage apply.
1000 times of charge for 30±5sec,under frequency of 6±0.5sec,and discharge for 5min 30sec.</td></tr>
</table>

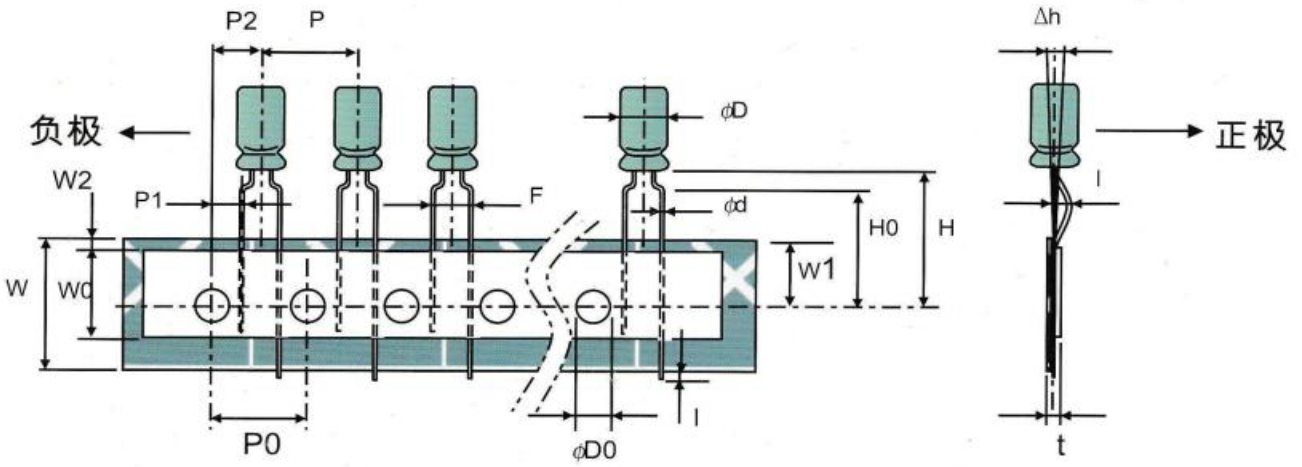
Vibration resistance	Capacitance	Stability required	
	Cap. Change	≤±5 % of the specified initial value.	
	Appearance	No remarkable abnormality	
	Frequency:10~55HZ/1min,width of vibration,1.5mmdirection and duration X,Y		
Resistance to soldering	Leakage current	≤initial specified value	Soldering temp: 280±5℃ Soldering time: 10±1 sec
	Cap. Chang	≤±10% of initial value	
	Dissipation Factor	≤the initial specified value	
	Appearanc	No remarkable abnormality	
Resistance to humidity	Leakage current	≤initial specified value	Test temp:40±2℃ Humidity:90~95% Test time:500±8 hours After the above condition, restored to normal temp, and then measuring.
	Cap. Change	≤±10% of initial value	
	Dissipation Factor	≤initial specified value	
	Appearance	No remarkable abnormality	

五. Package details



Unit:mm

φD	φ4	φ5	φ6.3	φ8	φ10	Tolerance
φd	0.45		0.5	0.6		±0.05
P	12.7					±1
P0	12.7					±0.2
P1	5.1			4.85	3.85	±0.5
P2	6.35					±1
F	2.5			3.5	5	+0.8,-0.2
W	18					±0.5
W0	11					min
W1	9					±0.5
W2	0.75					±0.75
H	17.5	18.5,17.5			19	±0.75
H0	16					±0.5
I	1					max
φD0	4					±0.2
Δh	0					±1
t	0.7					±0.2



Unit:mm

φD	φ4*5 φ4*7	φ5*7	φ6.3*5 φ6.3*7	φ5*11 φ6.3*11	φ8*12	Tolerance
φd	0.5					±0.05
P	12.7					±1
P0	12.7					±0.2
P1	3.85					±0.5
P2	6.35					±1
F	5					+0.8,-0.2
W	18					±0.5
W0	11					min
W1	9					±0.5
W2	0.75					±0.75
H	17.5			18.5	20	±0.75
H0	16					±0.5
I	1					max
φD0	4					±0.2
Δh	0					±1
t	0.7					±0.2