



物料承认书

APPROVAL SHEET

 ROHS

档案编号:

客户名称:	华秋
Customer name:	

供应商	东莞市创慧电子有限公司			
公司地址	东莞市谢岗镇银湖工业区			
物料名称	铝电解电容器	物料名称	铝电解电容器	
物料编码	CD2942G151M	物料品牌	CH	
物料规格	400V150UF	供方电话	0769-87633398	
物料尺寸	D25X25L	供方传真	0769-87633399	
附件	物料规格书:	<input type="checkbox"/> N <input type="checkbox"/> Y	ROHS检测报告:	<input type="checkbox"/> N <input type="checkbox"/> Y
	样品测试报告:	<input type="checkbox"/> N <input type="checkbox"/> Y	IQC样品:	<input type="checkbox"/> N <input type="checkbox"/> Y
备注	<input type="checkbox"/> 新机型物料 <input type="checkbox"/> 物料变更 <input type="checkbox"/> 增加/变更供应商 <input type="checkbox"/> 其他:			

客户确认栏

批准 Approver	审核 Checker	制作 Engineer	盖章

日期:

供应商确认栏

批准 Approver	审核 Checker	制作 Engineer	盖章
刘劲松	魏小容	邓瑶玲	

日期:

2020/11/13

CD294 Series

Aluminum Electrolytic Capacitors

Item Name	Rating	Case size
CD2942G151M	400V150UF	D25X25L

1. Operating Temp. Range

-25°C ~ +105°C

Electrical Characteristics

See Table 1.

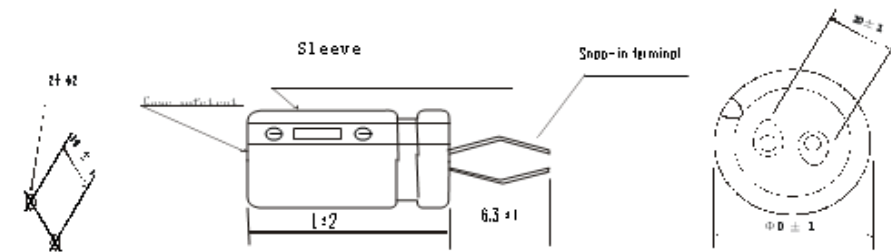
【Table 1】

Rated Voltage VDC	Surge Voltage VDC	Nominal Static Capacitance (μF)	Tolerance on Capacitance (%) 20°C 120Hz	Dissipation Factor (tan δ) max 20°C 120Hz	Leakage Current 5min. 20°C (μA)	Permissible Ripple Current (Arms) 105°C 120Hz
400	450	150	-20~+20	0.15	135	0.82

3

◆ Shape and Dimensions

Unit (mm)



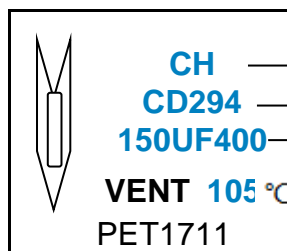
PCB hole dimensions

Unit(mm)

φ D+0.5Max	L+2.0Max	F±0.5	
25	25	10.0	

4.

Following items are printed with white color on black color sleeve



- ① Rated voltage & Nominal Capacitance
- ② Polarity (negative)
- ③ Trade Mark
- ④ Symbol of Capacitance Tolerance (M)
- ⑤ Max Operating Temp.

5. MULTIPLIER FOR RIPPLE CURRENT

①. Frequency Coefficient

Freq.(Hz)	60(50)	120	300	1K	10K
Cap(μF)					
150	0.8	1	1.25	1.34	1.5

②. Temperature Coefficient

Ambient Temperature(°C)	40	60	70	85	105
Coefficient	2.4	2.1	1.78	1.65	1

6. Characteristics

No.	Item	Performance	Test Method						
1	Leakage Current	$I = 135 \mu A$ Whichever is smaller (After 2 min)	Protection Resistor : $1000 \pm 10 \Omega$ Applied Volt : Rated Voltage Measuring time : 2minutes						
2	Static Capacitance	$-20 \sim +20$	Measured Frequency : $120 \text{Hz} \pm 20\%$ Measured Voltage $\leq 0.5 \text{Vrms}, 1.5 \sim 2.0 \text{VDC}$ Same as condition of Capacitors						
3	Dissipation Factor (tan δ)	0.15 and Under							
4	High Temp. Load Characteristics	Leakage Current	\leq the value specified in Table 1	Test Temp. : $105 \pm 2^\circ \text{C}$ Applied voltage: Rated voltage Test Time : 2000 hours +72, -0 hours					
		Cap. Change	$\leq \pm 20\%$ of initial value						
		Dissipation Factor	$\leq 200\%$ of value specified in Table 1						
		Appearance	No remarkable abnormality						
	no load Characteristics	Leakage Current	\leq the value specified in Table 1	Test Temp. : $105 \pm 2^\circ \text{C}$ No voltage applied Test Time : 1000 hours +24, -0 hours					
			$\leq \pm 20\%$ of initial value						
		Dissipation Factor	$\leq 200\%$ of value specified in Table 1						
		Appearance	No remarkable abnormality						
6	Terminal Strength	Tensile Strength	45N {4.5kg}	Keeping time Tensile 1~5sec Bending $30 \pm 5 \text{sec}$					
		Bending Strength	25N {2.5kg}						
7	Impedance Ratio	<table border="1"> <thead> <tr> <th>W V</th> <th>400</th> </tr> </thead> <tbody> <tr> <td>Z(-25°C)/Z(+20°C)</td> <td>4</td> </tr> <tr> <td>Z(-40°C)/Z(+20°C)</td> <td>/</td> </tr> </tbody> </table>	W V	400	Z(-25°C)/Z(+20°C)	4	Z(-40°C)/Z(+20°C)	/	
W V	400								
Z(-25°C)/Z(+20°C)	4								
Z(-40°C)/Z(+20°C)	/								
8	Temperature Characteristics	Stage	Item	Performance	Stage	Test Temp(°C)			
		2,3	Impedance Ratio	less than the value mentioned in 5-7,	1	20 ± 2			
		5	Cap, Change	$\leq \pm 25\%$ against value in stage 4	2	-25 ± 3 ;			
					3	-40 ± 3 ;			
					4	20 ± 2			
					5	105 ± 2			
		After the capacitor is held at temperature of each stage and reaches temperature stability, measure performance.	6	20 ± 2					
9	Surge Voltage	Item	Performance	Test Temp. $15 \sim 35^\circ \text{C}$ Test volt. Surge Volt. Specified in 2 Voltage apply. 1,000times of chage for $30 \pm 5 \text{sec}$, under frequency of $6 \pm 0.5 \text{sec}$, and discharge for 5min30sec.					
		Leakage Current	\leq the initial specified value						
		Cap, Change	$\leq \pm 15\%$ against value before test						
		Dissipation Factor	\leq the initial specified value						
		Appearance	No remarkable abnormality						

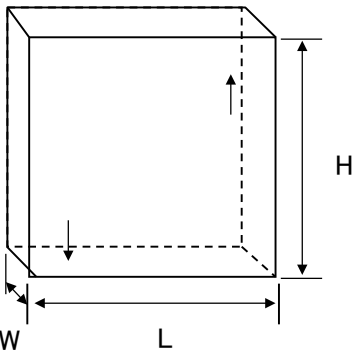
Drawing

6-2. Characteristics

No.	Item	Performance	Test Method
10	Vibration Resistance	Capacitance	Stability required
		Cap. Change	≤±5% of the initial specified value
		Appearance	No remarkable abnormality
		Frequency : 10~55Hz/1min. Width of vibration, 1.5mm Direction and duration X, Y and Z directions, each for 2 hours (Total 9 hours)	
11	Solderability	3/4 area of surrounding directions of surface should be covered with new solder.	Solder: Sn-Ag, Sn-Cu Type Soldering Temp : 240±5°C Dipping degree : 2~2.5mm Flux : Ethanol solution (JIS K8101) or Isopropylalchol (JIS K8839) solution of Rosin (JIS K5902)
12	Resistance to Soldering	Leakage Current	≤ Initial specified value
		Cap. Change	≤ ±10% of initial value
		Dissipation Factor	≤ Initial specified in value
		Appearance	No remarkable abnormality
13	Resistance Humidity	Leakage Current	≤ Initial specified value
			≤ ±15% of initial value
		Dissipation Factor	≤ Initial specified value
		Appearance	No remarkable abnormality
14	Perssure valve moment charact-erstics	There must not be thing ignition, scattering the resolution that that case works safely	
		Dcmethod: impress the reverse voltage and of 1A, I cancel an electric current.	

7.Packing method

5-1 Packaging shape, size, quantity



Component size	Quantity per	Symbol of box	L	H	W
D25X25L	PCS	Y-2	480	320	320

8 Related Standards JIS C 5141

9 Marking on packing box

- ① Item name
- ② Series name
- ③ Rated Voltage
- ④ Nominal Static Capacitance
- ⑤ Case size
- ⑥ Lot No.
- ⑦ Quantity

10.Soldering

Soldering by soldering iron

Temperature of iron top : 270~350°C

Operating time : within 3 sec.

Flow soldering.

Preheat : PCB surface temperature 120°C±5°C

Solder Temp : 260°C±5°C

Solder Dipping Temp. : 2~4sec.

11.Cleaning of PC board after soldering

Using following solvents is possible but make sure following condition

Solvent

IPA or Alcoholic agent like Pinealpha ST-100S, Cleanthrough 750H, 750L, 710M, 750K,
or Technocare FRW-14~17

- ① Cleaning should be made by ultrasonic within 5min, at the temperature less than 60°C.
- ② Control of pollution is necessary (conductivity,pH, specific gravity, water volume)
- ③ Please do not keep near cleaning agent. Please do not store in air-tight container.
Please let it dry by hot air at the temperature less than maximum operating temp.



东莞市创慧电子有限公司

Dong Guan Chuang Hui Electronics Factory

TEST DATA SHEET OF ELECTROLYTIC CAPACITORS (数据测试表)

DATE (日期):	2020/11/13	QUANTITY (数量):	10 PCS
CUSTOMER (客户):	华秋	BRAND(商标):SERIES(型号)	CH CD294
RATINGS (规格):	400V150UF	CASE SIZE (尺寸):	D25X25L

Capacitance Tolerance at 120Hz/25°C	Max.TAN δ at 120 Hz 25°C	Max.Leakage Current(μ A) After2min.	Max.Impedance (Ω) At100KHz/25°C	Max. Ripple Current(Arms) At120HZ/ 105 °C	WORKING TEMP (°C)	SURGE VOLT. (V)
-20~+20	15%	135	/	0.82	-25°C ~ +105°C	450

NO.	CAPACITANCE (μ F)	TAN δ (%)	Leakage Current (μ A)	Impedance (Ω)	Remarks
1	141.0	5.2	102.0		
2	143.0	5.3	104.0		
3	142.0	5.1	105.0		
4	145.0	5.2	103.0		
5	147.0	5.3	104.0		
6	142.0	5.2	102.0		
7	143.0	5.1	102.0		
8	144.0	5.3	104.0		
9	147.0	5.2	102.0		
10	143.0	5.1	104.0		
MIN.	141.0	5.1	102		
MAX.	147.0	5.3	105.0		
AVE.	143.0	5.2	103.0		
核准	刘劲松		审核	魏小容	
				制作	邓瑶玲

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