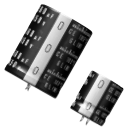
nichicon LGL2W331MELC25 alternative



Aluminium Electrolytic Capacitors -
Snap In 450volts 330uF Ultra Small Sz

Customer: .....

Date: 2022.10.21

Specification Description： ： Liquid Electrolytic Capacitors

330uF±20%/450V/Φ35*25/105℃/3KH

SPECIFICATION

Product: Aluminum Electrolytic Capacitors

APPROVED BY

Please Return One Copy with Your Approval

批准	审核	做成
李民	姚萍	晏雨钦

nichicon LGL2W331MELC25 alternative

Aluminium Electrolytic Capacitors - Snap In 450volts 330uF Ultra Small Sz

1 、Overview

This letter of acceptance specifies the technical specifications of aluminum electro capacitors.

2 、Reference standard

This approval sheet consulted the institute of JIS-C-5101-1 and JIS-C-5101-4.

3 、Operating Temperature Range

Operating temperature range is the range of ambient temperature at which the capacitor can be operated continuously at rated voltage.

-25℃~+105℃（200 V.DC~ 450V.DC）

4、Test environment

If there are no regulations, the standard test and inspection environmental conditions are as follows:

Ambient temperature：15℃~35℃

Relative humidity：45%~75%le

Air pressure：86kpa~106kpa

If there may be doubt on the results, measurements shall be made within the following limits.

Ambient temperature ： 24±1℃

Relative humidity ： 60 to 67%

Air pressure ： 86kpa to 106kpa

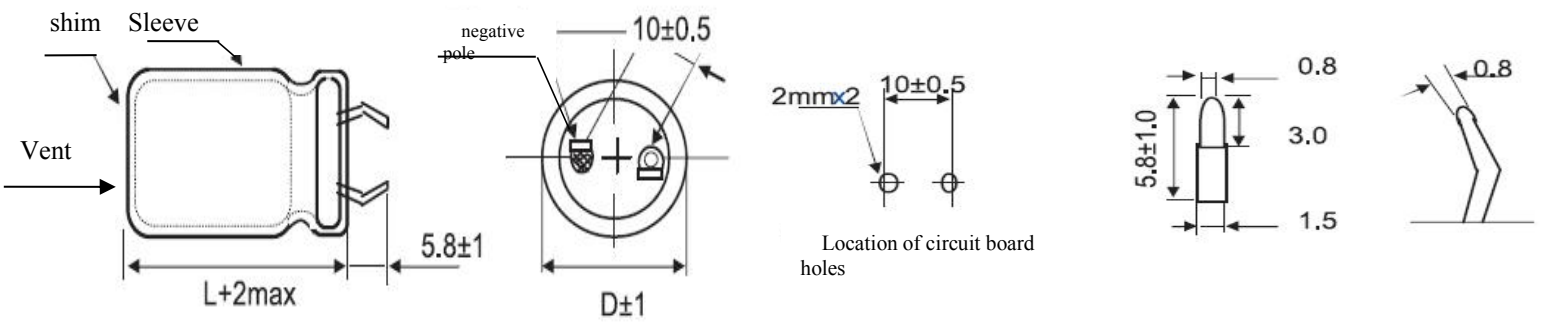
5 、SPECIFICATIONS

Item	Characteristics			
Operating Temperature Range	–25 ~ +105℃			
Rated voltage Range	200 ~ 450Vdc			
Capacitance Tolerance	±20%(M)			(condition ： 20℃, 120Hz)
Leakage current	200~450Vdc $I \le 3\sqrt{CV}$ or 1.5mA choose the smaller one	I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (at 20℃ after 5 minutes)		
Dissipation Factor (tanδ)	Rated Voltage (Vdc)	200 to 400V	450V	(condition： 20℃, 120Hz)
	tanδ (Max.)	0.15	0.15	
Temperature characteristics(Impedance ratio at 120HZ)	Rated Voltage (Vdc)	200 to 400V	450V	(condition： 120Hz)
	Z(–25℃)/Z(+20℃)	4	8	
Load Life	The following specifications shall be satisfied after 3000h,when the capacitors are restored to 20°C after DC voltage plus the rated ripple current is applied for a specified period of time at 105°C ：			
	Capacitance Change	≤±20% of the initial value		
	Dissipation Factor (tanδ)	≤200% of the initial specified value		
	Leakage current	≤The initial specified value		
Shelf Life	The capacitors are then stored with no voltage applied at a temperature of 105±2℃for 1000 h：			
	Capacitance Change	≤±20% of the initial value		
	Dissipation Factor (tanδ)	≤200% of the initial specified value		
	Leakage current	≤150% of the initial specified value		

nichicon LGL2W331MELC25 alternative

Aluminium Electrolytic Capacitors - Snap In 450volts 330uF Ultra Small Sz

6、SIZE [mm]



7、MARKING

7.1 The following items shall be marked indelibly on the capacitor.

（1） Manufacture’s name or trade mark.

（2） Polarity of the terminals

（3） Rated voltage ---V

（4） Capacitance uF(M) Capacitance Tolerance

（5） Type and specification

（6） Rated temperature –25 ~ +105℃

7.2 Marking color

Sleeve color： Dark green

Marking color：Golden

8、RIPPLE CURRENT MULTIPLIER

Frequency Coefficient

WV(Vdc) \ Freq(HZ)	120	1K	10K	100K
200 to 450	1	1.30	1.41	1.45

Ripple current temperature coefficient

WV(Vdc) \ ℃	135	125	115	105	85
200 to 450	0.7	0.8	0.9	1	1.8

Ripple current will heat the inside of the capacitor, and the service life of the capacitor will be halved. every 10℃ rise in temperature, so as to shorten the durability of the capacitor. In practical use, if a long life is required, the ripple current must be reduced to an appropriate value.

8.2 Rated ripple current

Working Voltage（V）	Capacitance（uF）	Size(mm)	Leakage Current (uA)(5min.)	Max Ripple Current (A) @105℃ 100KHz
450	330	35*25	1156	1.02

9 OTHERS

9. 1 IMPORTANT INFORMATION ON THE APPLICATION OF ALUMINUM ELECTROLYTIC CAPACITORS

(1).DC electrolytic capacitors are polarized

When reverse voltage is applied on DC electrolytic capacitor, the capacitor will becomes short-circuited please use no polarized capacitors in the circuit be damage due to abnormal current flows through the capacitors since the circuit where the positive voltage may be applied to the cathode terminal.

(2).Use capacitor within rated voltage

When capacitor is used at higher voltage than the rated voltage, leakage current increases, characteristics drastically deteriorate and damage in a short period may occur as a result. Please take extra caution that the peak voltage should not exceed the rated voltage.

(3).Charge and discharge application.

When aluminum electrolytic capacitors for general purpose are employed in rapid charge and discharge application, its life expectancy may be shortened by capacitance decrease, heat rise, etc.

(4).Store the capacitor.

I creased leakage current is common in aluminum capacitors which have been stored for long period of time. The Higher the storage temperature, the higher the leakage current increase, therefore please take precautions concerning the storage location. The leakage current decreases gradually as voltage is applied to the capacitor. In cases where increased leakage current causes problems in the circuit, apply voltage(aging) before using.

(5).Ripple current applied to capacitor should not exceed the rated value.

Excessive heat will reduce capacitance and result in shortened life of capacitor if ripple currents exceeding the specified rated value are applied. The peak value of the ripple voltage should be less than the rated voltage.

(6).Ambient temperature.

Life of the aluminum electrolytic capacitor is affected by the ambient temperature. It is generally stated, that life doubles for each 10℃ decrease in temperature.

(7).Lead stress

When a strong force is applied to the lead wires or terminals, stress is put on the internal connections. This may result in short circuit, open circuit or increased leakage current. It is not advisable to bend or handle a capacitor after it has been soldered to the PC board.。

(8).Heat resistance at the soldering process

In the dip soldering process of PC board with aluminum electrolytic capacitors mounted, secondary shrinkage or crack of PET sleeve may be observed when solder temperature is too high or dipping time is too long.

(9)Hole pitch and position of PC board.

A PC board must be designed so its hole pitch coincides with the lead pitch(lead spacing) of the capacitor specified by the catalog or specifications. when a capacitor is forcibly inserted into an unmatched hole pitch, a stress is put on the leads This could result in a short circuit or increased leakage current.

(10)Cleaning after welding

① Capacitors cannot be cleaned with halogenated organic series cleaning agents, If cleaning is necessary, use a capacitor that ensures with high quality.

② For the cleaning agent that can ensure the quality of the capacitor ,please do not keep it in the cleaning solutions or sealed container after cleaning. The cleaned capacitor and the circuit board shall be dried under hot air for more than 10 minutes. The temperature of hot air shall not be higher than the upper limit temperature of the capacitor.

(11)About fixing agent and coating(coating agent)

① please do not use fixing agent and coating(coating agent) containing halogenated organic series.

② please do not let the fixing agent and coating(coating agent) seal all the sealing parts (terminal side) of the capacitor.

9.2 RoHS compliance

Comply with the latest EU RoHS standards, If the customer has special requirements, the relevant agreements signed by both parties shall prevail.

9.3 Compliance with REACH

Comply with the latest standard of EU REACH directive.