Type AXLH -40 ºC to +150 ºC

High Temperature Axial Leaded Aluminum Electrolytic Capacitors

High Performance Axial Leaded Aluminum Electrolyic Capacitors

Type AXLH capacitors are a new generation of high performance aluminum electrolytic capacitors rated up to 2000 hours at 150 ºC. They are designed for applications that place high demands on a capacitor. The capacitor's outstanding features include low ESR, low leakage current, a long shelf life and a high ripple current capability.

Highlights

- 150 °C Operating Temperature
- Up to 28 Amps RMS Continuous Ripple Current
- Capacitance Range: 470 µF to 4700 µF
- High Vibration Resistance
- Very Long Shelf Life
- Low Leakage Current

Specifications

Capacitance Range (100 Hz/+20 ºC)	470 to 4700 µF
Capacitance Tolerance (100 Hz/+20 ºC)	-10/+30%
Rated Voltage	25, 40, 63 Vdc
Operating Temperature	-40 ºC to +150 ºC
Leakage Current (at 20°C)	I = 0.003 CV +4.0 µA; after 5 minutes at rated voltage I = leakage current in µAmps C = rated capacitance in µF V = rated DC Working voltage in Volts
Ripple Current vs. Frequency Correction Factors	Frequency (Hz) / 100 / 300 / 1000 / 5000 / 100 kHz Ripple Current Correction Factor / 0.35 / 0.57 / 0.8 / 1 / 1.04
Shelf Life	(+105 ºC/0 Vdc): 5000 hours (+40 ºC/0 Vdc): 10 years
Standard	IEC 60384-4 long life grade 40/125/56
RoHS Compliant	

Part Numbering System

AXLH	222	P	025	E	D
Type	**Capacitance**	**Capacitance Tolerance**	**Voltage Code**	**Case Dia.Code**	**Case Length Code**
	222 = 2200 µF	P = -10/+30%	025 = 25 Vdc 040 = 40 Vdc 063 = 63 Vdc	E = 20 mm	D = 27 mm H = 35 mm L = 43 mm

Type AXLH -40 ºC to +150 ºC

High Temperature Axial Leaded Aluminum Electrolytic Capacitors

Load Life Test

Test	Mount the capacitor on a heat sink with a low thermal resistance path. Apply the maximum rated voltage for 2000 hrs at +150°C with the +150°C maximum ripple current applied to the capacitor. After the test, measure the capacitance, ESR, and DCL at +20°C.
ΔC	Capacitance will be within ±15% of the initial value
ESR	ESR will be less than 2 times the initial value
DCL	The leakage current will be within the specified value
Appearance	No electrolyte leakage or other visible damage. The markings will be legible.

Vibration Test

Test	Clamp the case to the test fixture. Frequency range is 10 - 2000 Hz. Amplitude of 1.5mm or 20 g acceleration. Duration of test is 22 hours in each of three directions. After the test, measure the capacitance at +20°C.
ΔC	Capacitance change from the initial measurement must not exceed 5%.
Appearance	No electrolyte leakage or other visible damage.

Surge Voltage Test

Test	Subject the capacitor to 1000 surge voltage cycles at +150°C. For each cycle, apply 1.15 times the rated voltage for 30 seconds followed by no voltage for 5 min. and 30 seconds. The time constant for charging is 0.1 seconds. After one to two hours, measure the capacitance and esr.
ΔC	Capacitance change from the initial measurement must not exceed 15%.
ESR	The ESR will be < 2x initial value.
Appearance	No electrolyte leakage or other visible damage.

Storage at Low Temperature Test

Test	Subject the capacitor to 72 hours at -55°C. After 16 hours at room temperature, measure the capacitance and DCL.
ΔC	Capacitance change from the initial measurement must not exceed 10%.
DCL	Leakage current will meet the initial specification.
Appearance	No electrolyte leakage or other visible damage. The markings are to be legible.

Charge and Discharge Test

Test	Subject the capacitor to 1 million charge/discharge cycles at +20°C. For each cycle, apply the rated voltage for 0.5 seconds using a 0.1 second charge/discharge time constant. After the test, the following will apply;
ΔC	Capacitance will be within ±10% of the initial value.
Appearance	No electrolyte leakage or other visible damage.

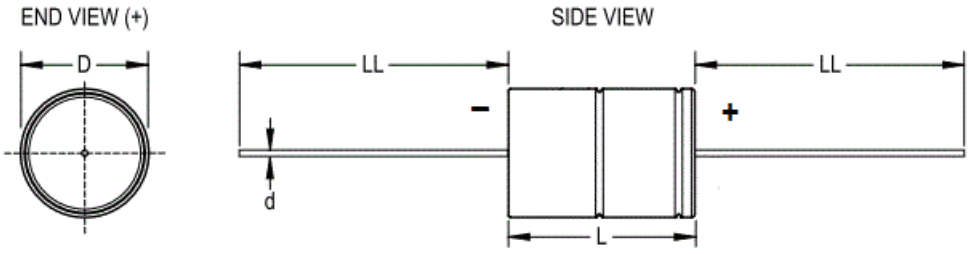
Type AXLH -40 ºC to +150 ºC

High Temperature Axial Leaded Aluminum Electrolytic Capacitors

Ratings

Rated Capacitance 100Hz/+20°C (µF)	Capacitance Tolerance (%)	VDC	Cornell Dubilier Part Number	Case Size D x L (mm)	Max. ESR 100 Hz/+20°C (mΩ)	Max. ESR 100 kHz/+20°C (mΩ)	Rated Ripple Current ≥ 5kHz/+125°C (A)	Maximum Ripple Current ≥ 5kHz/+125°C (A)
2200	-10/+30	25	AXLH222P025ED	20 x 27	50	25	7.1	9.1
3300	-10/+30	25	AXLH332P025EH	20 x 35	34	17	8.9	11.3
4700	-10/+30	25	AXLH472P025EL	20 x 43	25	13	10.3	13.1
1500	-10/+30	40	AXLH152P040ED	20 x 27	57	22	7.3	9.3
2200	-10/+30	40	AXLH222P040EH	20 x 35	41	17	8.9	11.2
2700	-10/+30	40	AXLH272P040EL	20 x 43	32	13	10.1	12.8
470	-10/+30	63	AXLH471P063ED	20 x 27	125	32	5.5	7.0
680	-10/+30	63	AXLH681P063EH	20 x 35	87	23	6.9	8.7
900	-10/+30	63	AXLH901P063EL	20 x 43	67	18	8.1	10.2

Outline Drawings & Dimensions Table



Size Code	Dimensions in mm				Approximate Weight (grams)
	D	L	d	LL	
	± 0.5	± 1	± 0.03	±2	
ED	20	26.5	1	40	13
EH	20	34.5	1	40	20
EL	20	42.5	1	40	24

Note: Bend leads at least 3.5 mm from the case.

Type AXLH -40 ºC to +150 ºC

High Temperature Axial Leaded Aluminum Electrolytic Capacitors

Heat-Sinked Ratings

Cornell Dubilier Part Number	Max. ESR 5-100 kHz 125-150°C (mΩ)	Maximum Ripple Current *		
		≥ 5 kHz/+125°C (A)	≥ 5 kHz/+140°C (A)	≥ 5 kHz/+150°C (A)
AXLH222P025ED	10.6	22.2	14	6.3
AXLH332P025EH	7.8	25.8	16.3	7.3
AXLH472P025EL	6.4	28.5	18	8.1
AXLH152P040ED	10	22.8	14.4	6.5
AXLH222P040EH	7.9	25.7	16.2	7.3
AXLH272P040EL	6.7	27.9	17.6	7.9
AXLH471P063ED	17.5	17.3	10.9	4.9
AXLH681P063EH	13	20	12.7	5.7
AXLH901P063EL	10.6	22.2	14	6.3

* When the capacitor is mounted to a heat-sink using low thermal resistance path.

Capacitor Markings

Marking	Description
-- CDM ++	Logo, Polarity Marks
AXLH222P025ED	CDE Part Number
2200 uF 25VDC	Capacitance, Rated Voltage (VDC)
160603	Date Code (Year, Week), Batch Number

Notice and Disclaimer: All product drawings, descriptions, specifications, statements, information and data (collectively, the "Information") in this datasheet or other publication are subject to change. The customer is responsible for checking, confirming and verifying the extent to which the Information contained in this datasheet or other publication is applicable to an order at the time the order is placed. All Information given herein is believed to be accurate and reliable, but it is presented without any guarantee, warranty, representation or responsibility of any kind, expressed or implied. Statements of suitability for certain applications are based on the knowledge that the Cornell Dubilier company providing such statements ("Cornell Dubilier") has of operating conditions that such Cornell Dubilier company regards as typical for such applications, but are not intended to constitute any guarantee, warranty or representation regarding any such matter – and Cornell Dubilier specifically and expressly disclaims any guarantee, warranty or representation concerning the suitability for a specific customer application, use, storage, transportation, or operating environment. The Information is intended for use only by customers who have the requisite experience and capability to determine the correct products for their application. Any technical advice inferred from this Information or otherwise provided by Cornell Dubilier with reference to the use of any Cornell Dubilier products is given gratis (unless otherwise specified by Cornell Dubilier), and Cornell Dubilier assumes no obligation or liability for the advice given or results obtained. Although Cornell Dubilier strives to apply the most stringent quality and safety standards regarding the design and manufacturing of its products, in light of the current state of the art, isolated component failures may still occur. Accordingly, customer applications which require a high degree of reliability or safety should employ suitable designs or other safeguards (such as installation of protective circuitry or redundancies or other appropriate protective measures) in order to ensure that the failure of an electrical component does not result in a risk of personal injury or property damage. Although all product-related warnings, cautions and notes must be observed, the customer should not assume that all safety measures are indicated in such warnings, cautions and notes, or that other safety measures may not be required.

Общество с ограниченной ответственностью «МосЧип» ИНН 7719860671 / КПП 771901001
Адрес: 105318, г.Москва, ул.Щербаковская д.3, офис 1107

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

http://moschip.ru/get-element

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:
moschip.ru
moschip.ru_4
moschip.ru_6
moschip.ru_9