

## Fuse On-Going Reliability Test Summary Report - 0ALGX Fuse series

**Fuse Type and Rating : 0ALGX 600A**

**Production Lot Number : ENG'samples**

**Project Number : FPQ-160**

**Fuse Part Number : 0ALGBK600-EA**

Reference	Test Description	Testing Condition	Acceptance Criteria	Result
UL248-1	Cold resistance	Ambient temperature:23±5°C,<=10 % testing current, test point: fuse terminal	Record the real data	12/12 pass
ISO8820-8 JSAE JASO D622	Temperature rise test	Apply 0.5 In test current at Ambient temperature:23±5°C	The temperature rise shall not exceed 50K	2/2 pass
JASO D622 6.3.4.1	Temperature and humidity cycle	In accordance with the standard, the fuse-links shall undergo constant temperature humidity chamber for 10 times repeatedly,24 hours/cycle	No appearance damage, Rc change <10%	2/2 pass
JASO D622 6.3.6	Thermal shock resistance test	-30°C~100°C, total 48 cycles	No appearance damage, Rc change <10%	2/2 pass
User-defined	High temperature storage test	Put samples in 125°C for 100 hours	No appearance damage, Rc change <10%	2/2 pass
JASO D622 6.3.3	Vibration durability test	Ambient temperature:23±5°C,frequency range:10Hz-55Hz,1.5mm between the peaks, 2 hours in each of 3 mutually perpendicular directions, total of 6 hours	No appearance damage, Rc change <10%	2/2 pass
JASO D622 6.3.2	Transient current intermittent cycle durability test	Ambient temperature:23±5°C, The initial peak transient current shall bel adjusted to 2In/0.25sec, subsequent 0.5In/15sec, Then, apply the current up to 50000 cycles repeatedly.	No appearance damage, Rc change <10%	2/2 pass
GB/T31465.1-5.4	Wipe with petrol and lubricant	Wipe the marking with petrol and lubricant for 30 seconds	The marking still legible	2/2 pass
JSAE JASO D622 ISO8820-8	Terminal strength test	Install and dismantle fuse with 20+/-1Nm, Install and dismantle fuse three times	The fuse shall remain phycally intact	12/12 pass

Reported By: Hongguo Hu

Approved by: Simon Chiu

Test Complete Date: May 26 , 2021

## Cold resistance

**Fuse Type and Rating : 0ALGX 600A**

**Production Lot Number : ENG'samples**

**Project Number : FPQ-160**

**Fuse Part Number : 0ALGBK600-EA**

**Condition : UL248-1**

Ambient temperature:23±5°C,<=10 % testing current, test point: fuse terminal

Type:	0ALGX 600A					
Start Date:	5/8/2021			End Date:	5/8/2021	
Room Temp.:	25.7	°C		Room Humi.:	66	%
No.\Name	Cold Resistance	Visual Check	No.\Name	Cold Resistance	Visual Check	
Unit:	mΩ		Unit:	mΩ		
Upper Limit:		No Visual Damage	Upper Limit:		No Visual Damage	
Lower Limit:			Lower Limit:			
1	0.1868	pass	7	0.1853	pass	
2	0.1855	pass	8	0.1886	pass	
3	0.1867	pass	9	0.1863	pass	
4	0.1878	pass	10	0.1871	pass	
5	0.1846	pass	11	0.1842	pass	
6	0.1858	pass	12	0.1897	pass	

## Temperature rise test

**Fuse Type and Rating : 0ALGX 600A**

**Production Lot Number : ENG'samples**

**Project Number : FPQ-160**

**Fuse Part Number : 0ALGBK600-EA**

**Condition : ISO8820-8JSAE JASO D622**

Apply 0.5 In test current at Ambient temperature:23±5°C

Type:	0ALGX 600A					
Start Date:	5/10/2021			End Date:	5/10/2021	
Room Temp.:	24.9	°C		Room Humi.:	41	%
No.\Name	Temperature rise @0.5In	Visual Check	No.\Name	Temperature rise @0.5In	Visual Check	
Unit:	K		Unit:	K		
Upper Limit:	50	No Visual Damage	Upper Limit:	50	No Visual Damage	
Lower Limit:			Lower Limit:			
1	37.9	pass	2	36.3	pass	

## Temperature and humidity cycle

**Fuse Type and Rating : 0ALGX 600A**

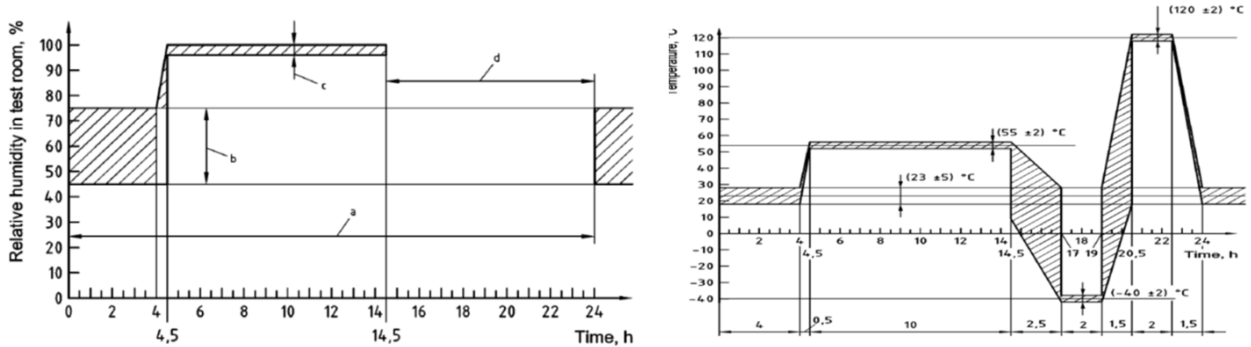
**Production Lot Number : ENG'samples**

**Project Number : FPQ-160**

**Fuse Part Number : 0ALGBK600-EA**

**Condition : JASO D622 6.3.4.1**

In accordance with the standard, the fuse-links shall undergo constant temperature humidity chamber for 10 times repeatedly, 24 hours/cycle



Type:	0ALGX 600A					
Start Date:	5/8/2021			End Date:	5/20/2021	
Room Temp.:	24.7	°C		Room Humi.:	55	%
No.\Name	Cold Resistance	Visual Check	No.\Name	Cold Resistance	Visual Check	
Unit:	mΩ		Unit:	mΩ		
Upper Limit:	0.2054	No Visual Damage	Upper Limit:	0.2066	No Visual Damage	
Lower Limit:	0.1680		Lower Limit:	0.1690		
3	0.1885	pass	4	0.1894	pass	



## Thermal shock resistance test

**Fuse Type and Rating : 0ALGX 600A**

**Production Lot Number : ENG'samples**

**Project Number : FPQ-160**

**Fuse Part Number : 0ALGBK600-EA**

**Condition : JASO D622 6.3.6**

-30°C~100°C, total 48 cycles

The condition of a single cycle:

-Leave the test pieces inside the room at (-30±2)°C for 30 minutes.

-Move then to another room at (100±2)°C within 15 seconds and leave them for 30 minutes.

-Move them back to the original room at (-30±2)°C within 15 seconds. One cycle shall be 60 minutes.

Type:	0ALGX 600A					
Start Date:	5/11/2021			End Date:	5/14/2021	
Room Temp.:	24.9	°C		Room Humi.:	57	%
No.\Name	Cold Resistance	Visual Check	No.\Name	Cold Resistance	Visual Check	
Unit:	mΩ		Unit:	mΩ		
Upper Limit:	0.2031	No Visual Damage	Upper Limit:	0.2044	No Visual Damage	
Lower Limit:	0.1661		Lower Limit:	0.1672		
5	0.1865	pass	6	0.1868	pass	

## High temperature storage test

**Fuse Type and Rating : 0ALGX 600A**

**Production Lot Number : ENG'samples**

**Project Number : FPQ-160**

**Fuse Part Number : 0ALGBK600-EA**

**Condition : User-defined**

Put samples in 125°C for 100 hours

Type:	0ALGX 600A					
Start Date:	5/10/2021			End Date:	5/17/2021	
Room Temp.:	24.1	°C		Room Humi.:	60	%
No.\Name	Cold Resistance	Visual Check	No.\Name	Cold Resistance	Visual Check	
Unit:	mΩ		Unit:	mΩ		
Upper Limit:	0.2038	No Visual Damage	Upper Limit:	0.2075	No Visual Damage	
Lower Limit:	0.1668		Lower Limit:	0.1697		
7	0.1859	pass	8	0.1891	pass	



## Vibration durability test

**Fuse Type and Rating : 0ALGX 600A**

**Production Lot Number : ENG'samples**

**Project Number : FPQ-160**

**Fuse Part Number : 0ALGBK600-EA**

**Condition : JASO D622 6.3.3**

Ambient temperature:23±5°C,frequency range:10Hz-55Hz,1.5mm between the peaks, 2 hours in each of 3 mutually perpendicular directions, total of 6 hours

Type:	0ALGX 600A					
Start Date:	5/20/2021			End Date:	5/20/2021	
Room Temp.:	24.5	°C		Room Humi.:	58	%
No.\Name	Cold Resistance	Visual Check	No.\Name	Cold Resistance	Visual Check	
Unit:	mΩ		Unit:	mΩ		
Upper Limit:	0.2049	No Visual Damage	Upper Limit:	0.2058	No Visual Damage	
Lower Limit:	0.1677		Lower Limit:	0.1684		
9	0.1875	pass	10	0.1891	pass	

## Transient current intermittent cycle durability test

**Fuse Type and Rating : 0ALGX 600A**

**Production Lot Number : ENG'samples**

**Project Number : FPQ-160**

**Fuse Part Number : 0ALGBK600-EA**

**Condition : JASO D622 6.3.2**

Ambient temperature:23±5°C,

The initial peak transient current shall bel adjusted to 2In/0.25sec, subsequent 0.5In/ 15sec, Then, apply the current up to 50000 cycles repeatedly.

Type:	0ALGX 600A					
Start Date:	5/10/2021			End Date:	5/22/2021	
Room Temp.:	25.7	°C		Room Humi.:	61	%
No.\Name	Cold Resistance	Visual Check	No.\Name	Cold Resistance	Visual Check	
Unit:	mΩ		Unit:	mΩ		
Upper Limit:	0.2026	No Visual Damage	Upper Limit:	0.2087	No Visual Damage	
Lower Limit:	0.1658		Lower Limit:	0.1707		
11	0.1854	pass	12	0.1854	pass	



## Wipe with petrol and lubricant

**Fuse Type and Rating : 0ALGX 600A**

**Production Lot Number : ENG'samples**

**Project Number : FPQ-160**

**Fuse Part Number : 0ALGBK600-EA**

**Condition : GB/T31465.1-5.4**

Wipe the marking with petrol and lubricant for 30 seconds

Type:	0ALGX 600A					
Start Date:	5/24/2021			End Date:	5/24/2021	
Room Temp.:	25.1	°C		Room Humi.:	63	%
No.\Name	Marking still legible		No.\Name	Marking still legible		
3	pass		8	pass		

## Terminal strength test

**Fuse Type and Rating : 0ALGX 600A**

**Production Lot Number : ENG'samples**

**Project Number : FPQ-160**

**Fuse Part Number : 0ALGBK600-EA**

**Condition : JSAE JASO D622ISO8820-8**

Install and dismantle fuse with 20+/-1Nm, Install and dismantle fuse three times

Type:	0ALGX 600A					
Start Date:	5/8/2021			End Date:	5/24/2021	
Room Temp.:	25.1	°C		Room Humi.:	63	%
No.\Name	The frequency of Install and dismantle	Visual Check	No.\Name	The frequency of Install and dismantle	Visual Check	
Unit:			Unit:			
Upper Limit:		No Visual Damage	Upper Limit:		No Visual Damage	
Lower Limit:	3		Lower Limit:	3		
1	>3	pass	7	>3	pass	
2	>3	pass	8	>3	pass	
3	>3	pass	9	>3	pass	
4	>3	pass	10	>3	pass	
5	>3	pass	11	>3	pass	
6	>3	pass	12	>3	pass	