

PRODUCT CHANGE NOTIFICATION

Date Issued: July 10, 2026

Product Identification: 0678L 15A-30A; 0678H 15A-30A; 0683G 20A-30A

PCN Number: PCN-F260007

Reason for Change (s): As part of our ongoing product optimization and commitment to high assembly quality, we have implemented a design enhancement to further improve performance during the reflow soldering process.

Description of the Change (s):

1. Change the cold resistance for 0678L 15A-30A; 0678H 15A-30A; 0683G 20A-30A
2. Update the value of A2Sec for 0678H 15A-30A; 0 683G 20A-30A
3. Update the TI curve for 0678L 15A-30A; 0678H 15A-30A; 0683G 20A-30A
4. Change details as below;

Current

Part Number	Ampere Rating	Nominal Cold Resistance (ohms)	Nominal Volt-drop @100%In (Volt) max.	Melting I ² T @10 In (A ² Sec) Min.	Nominal Power Dissipation (W)
0678L9150-XX	15A	0.0036	0.12	110	1.8
0678L9200-XX	20A	0.0025	0.09	270	1.8
0678L9250-XX	25A	0.0019	0.08	420	2.0
0678L9300-XX	30A	0.0013	0.07	1000	2.1

Part Number	Ampere Rating	Nominal Cold Resistance (ohms)	Nominal Volt-drop @100%In (Volt)	Melting I ² T @10 In (A ² Sec)	Nominal Power Dissipation (W)
0678H9150-XX	15A	0.0041	0.12	220	1.8
0678H9200-XX	20A	0.0028	0.09	420	1.8
0678H9250-XX	25A	0.0023	0.08	660	2.0
0678H9300-XX	30A	0.0015	0.08	2000	2.4

Part Number	Ampere Rating	Typical Cold Resistance (ohms)	Volt-drop @100%In (Volt) max.	Melting I ² T @10 In (A ² Sec)	Maximum Power Dissipation (W)
0683G9200-X1	20A	0.0025	0.10	480	2.0
0683G9250-X1	25A	0.0021	0.10	913	2.5
0683G9300-X1	30A	0.0018	0.10	1071	3.0

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Part Number	Ampere Rating	Nominal Cold Resistance (ohms)	Nominal Volt-drop @100%In (Volt) max.	Melting I ² T @10 In (A ² Sec) Min.	Nominal Power Dissipation (W)
0678L9150-XX	15A	0.0038	0.12	110	1.8
0678L9200-XX	20A	0.0028	0.09	270	1.8
0678L9250-XX	25A	0.0022	0.09	420	2.25
0678L9300-XX	30A	0.0014	0.09	1000	2.7

Part Number	Ampere Rating	Nominal Cold Resistance (ohms)	Nominal Volt-drop @100%In (Volt)	Melting I ² T @10 In (A ² Sec)	Nominal Power Dissipation (W)
0678H9150-XX	15A	0.0045	0.12	178	1.8
0678H9200-XX	20A	0.0030	0.09	345	1.8
0678H9250-XX	25A	0.0025	0.09	600	2.25
0678H9300-XX	30A	0.0016	0.09	990	2.7

Part Number	Ampere Rating	Typical Cold Resistance (ohms)	Volt-drop @100%In (Volt) max.	Melting I ² T @10 In (A ² Sec)	Maximum Power Dissipation (W)
0683G9200-X1	20A	0.0028	0.10	410	2.0
0683G9250-X1	25A	0.0023	0.10	700	2.5
0683G9300-X1	30A	0.0019	0.10	1000	3.0

Planned Timing and Implementation of Change: October 10, 2026

Impact on Quality and Reliability: None

Availability of Qualification Data: For 0678L Series, refer to Report FPQ-213
For 0678H Series, refer to Report FPQ-214
For 0683G Series, refer to Report FPQ-215

Remarks: No Change in Form, Fit or Function

Signature:

Danny Giblin

(Bel Representative)

Note: This form should be used if only for advising the customer



Fuse Qualification Summary Report - 0678L Fuse series

Fuse Type and Rating : 0678L 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-213

Fuse Part Number : 0678L9300-XX

Reference	Test Description	Testing Condition	Acceptance Criteria	Result
QUAL-WORK-EE	DC Resistance	< 10 % testing current	0.0014 Ω $\pm$ 25%	390 / 390 pass
QUAL-WORK-EE	Voltage drop	100 % testing current until V-drop value constant	Max. 0.09V	390 / 390 pass
QUAL-WORK-EE	Visual inspection	naked by eyes / microscope	no appearance defect	390 / 390 pass
QUAL-WORK-EE	Mechanical dimension	projector / digital caliper	within product specification	10 / 10 pass
MIL-STD-202G Method 107,Test condition B	Thermal Shock test	15 min for extremum, 5 cycles, -65 °C to 125 °C	No appearance defect , shall pass the end points tests	40 / 40 pass
QUAL-WORK-EE	Biased Humidity test	1000 hrs, 85°C, 85% RH,10% testing current	No appearance defect , shall pass the end points tests	50 / 50 pass
QUAL-WORK-EE	Biased Life test	1000 hrs, 70°C, 70% testing current	No appearance defect , shall pass the end points tests	50 / 50 pass
IEC 60127-1 9.5	Maximum sustained dissipation	measured at 100 % testing current, 1 hr	<2.7 W	10 / 10pass
QUAL-WORK-EE	Steady life test	100% testing current, 100 hrs, 25 $\pm$ 5 °C	< 10 % variation on DCR	10 / 10pass
UL 248-14	Fuse link temperature rise test	Apply 100 % testing current until constant temperature at 21°C ambient	$\leq$ 79 °C	10 / 10 pass
UL 248-14	Breaking capacity test	100A, 250 V _{AC} , power factor = 1	no cracking and deformation on fuse body	20 / 20 pass
UL 248-14	Breaking capacity test	300A, 65 V _{DC} , power factor = 1	no cracking and deformation on fuse body	
MIL-STD-202G, Method 302, Test Condition A	Insulation resistance	100 $\pm$ 10 V _{DC} test potential, after Breaking Capacity test	$\geq$ 0.01M Ω	
IEC 60127-1 9.2.2	Test at elevated temperature	70 $\pm$ 2 °C, 100 % testing current load 1hour	< 10 % variation on DCR & V-drop	10 / 10 pass
UL 248-14	Time current characteristics	100 % testing current	min. 4 hrs ; max. N/A	20 / 20 pass
UL 248-14	Time current characteristics	200 % testing current	min. N/A ; max. 60 sec.	20 / 20 pass
MIL-STD-202G Method 106	Moisture resistance test	10 cycles, 24 hrs, 25 °C to 65 °C then 10°C, 90 - 95 % RH	No appearance defect , shall pass the end points tests	20 / 20 pass
MIL-STD-202G Method 101,Test condition B	Salt spray test	Saturated salt spray at 35 °C for 48 hrs	No appearance defect , shall pass the end points tests	20 / 20 pass
MIL-STD-202G Method 213,Test condition I	Mechanical shock test	100 G's peak for 6 milliseconds; Sawtooth waveform	No appearance defect , shall pass the end points tests	20 / 20 pass
MIL-STD-202G Method 201	Vibration test	10 - 55 Hz, 0.06 inch total excursion, 2 hrs in each of 3 directions, after Mechanical shock test.	No appearance defect , shall pass the end points tests	
J-STD-002	Solderability test, no aging	immerse to flux 5 $\pm$ 1 sec then dip in solder bath 245 $\pm$ 5 °C, 5 $\pm$ 0.5 sec	solder coverage > 95 % of the termination surface	10 / 10 pass
J-STD-002	Solderability test, dry aging, 155 °C, 16 hrs	immerse to flux 5 $\pm$ 1 sec then dip in solder bath 245 $\pm$ 5 °C, 5 $\pm$ 0.5 sec	solder coverage > 95 % of the termination surface	10 / 10 pass
J-STD-002	Solderability test, steam aging, 8 hrs	immerse to flux 5 $\pm$ 1 sec then dip in solder bath 245 $\pm$ 5 °C, 5 $\pm$ 0.5 sec	solder coverage > 95 % of the termination surface	10 / 10 pass
MIL-STD-202G Method 210	Resistance to soldering heat test	dip solder bath 260 $\pm$ 5 °C, 10 $\pm$ 1 sec	< 10 % variation on DCR& V-drop, shall pass the end points tests	20 / 20 pass
IEC 60068-2-21	Terminal Strength (Axial Pull test)	5Lbs force for 1minute	termination remains firmly attached, <10 % variation on DCR&V-drop	10 / 10 pass
IEC 60068-2-21	Terminal Strength (Bending test)	Fuse mount on PCB,PCB bent by 1 mm at a rate 1mm/sec	termination remains firmly attached, <10 % variation on DCR&V-drop	10 / 10 pass
QUAL-WORK-EE	Surge resistance cycle test	1000 cycles rectangle wave,195A peak for 10ms duration, 10 seconds pulse interval	< 10% variation on DCR & V-drop	10 / 10 pass
J-STD-020	IR reflow soldering	Peak temperature 260°C for 30s max. with 3 cycles; 965C Solder paste	< 10% variation on DCR & V-drop, No appearance defect	300 / 300 pass

Reported By: Hu Hong Guo

Approved By: Simon Chiu

Reported Date: Jul 06, 2026



Mechanical Dimension

Fuse Type and Rating : 0678L 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-213

Fuse Part Number : 0678L9300-XX

Condition : **projector / digital caliper**
 within product specification

Unit	Initial DCR / V-Drop		Length 9.6-10.0mm	Width 2.92-3.18mm	Result
	mΩ	mV			
1	1.42	49	9.79	3.11	Pass
2	1.43	50	9.75	3.14	Pass
3	1.43	50	9.74	3.14	Pass
4	1.44	49	9.80	3.15	Pass
5	1.42	49	9.75	3.15	Pass
6	1.43	49	9.74	3.14	Pass
7	1.43	50	9.75	3.13	Pass
8	1.43	50	9.79	3.13	Pass
9	1.42	50	9.70	3.13	Pass
10	1.42	50	9.76	3.14	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Thermal Shock Test

Fuse Type and Rating : 0678L 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-213

Fuse Part Number : 0678L9300-XX

Condition : QUAL-WORK-EE

15 min for extremum, 5 cycles, -65 °C to 125 °C

Unit	Pre-test DCR/V-drop		After test		% of change		100% rated current	Visual Inspection	Result
	mΩ	mV	mΩ	mV	R	V	Min.:4 hour		
11	1.44	48	1.44	49	0	2	>4	No Appearance defect	Pass
12	1.51	51	1.50	52	-1	2	>4		Pass
13	1.45	48	1.46	49	1	2	>4		Pass
14	1.47	49	1.47	50	0	2	>4		Pass
15	1.48	49	1.48	50	0	2	>4		Pass
16	1.52	51	1.51	52	-1	2	>4		Pass
17	1.46	49	1.46	50	0	2	>4		Pass
18	1.44	48	1.43	48	-1	0	>4		Pass
19	1.45	47	1.43	48	-1	2	>4		Pass
20	1.47	49	1.47	50	0	2	>4		Pass
21	1.48	49	1.49	50	1	2	>4		Pass
22	1.51	51	1.52	52	1	2	>4		Pass
23	1.48	50	1.47	50	-1	0	>4		Pass
24	1.47	50	1.48	51	1	2	>4		Pass
25	1.54	52	1.57	53	2	2	>4		Pass
26	1.51	50	1.48	51	-2	2	>4		Pass
27	1.49	50	1.48	51	-1	2	>4		Pass
28	1.48	49	1.47	50	-1	2	>4		Pass
29	1.44	48	1.44	49	0	2	>4		Pass
30	1.46	49	1.45	50	-1	2	>4		Pass
Unit	Pre-test DCR/V-drop		After test		% of change		200% rated current	Visual Inspection	Result
	mΩ	mV	mΩ	mV	R	V	0-60s		
31	1.39	46	1.38	46	-1	0	11.1	No Appearance defect	Pass
32	1.42	48	1.43	49	1	2	12.4		Pass
33	1.41	47	1.39	48	-1	2	11.6		Pass
34	1.42	46	1.43	48	1	4	11.3		Pass
35	1.39	46	1.39	47	0	2	12.1		Pass
36	1.41	46	1.40	47	-1	2	11.3		Pass
37	1.45	48	1.44	49	-1	2	11.5		Pass
38	1.46	49	1.47	50	1	2	11.6		Pass
39	1.38	45	1.37	46	-1	2	12.1		Pass
40	1.41	47	1.40	48	-1	2	11.4		Pass
41	1.40	46	1.39	47	-1	2	12.3		Pass
42	1.43	48	1.44	50	1	4	11.6		Pass
43	1.43	48	1.46	50	2	4	10.8		Pass
44	1.46	46	1.39	47	-5	2	11.6		Pass
45	1.39	45	1.39	46	0	2	11.2		Pass
46	1.39	46	1.39	47	0	2	11.0		Pass
47	1.39	47	1.43	49	3	4	12.2		Pass
48	1.38	45	1.37	46	-1	2	11.7		Pass
49	1.36	44	1.35	45	-1	2	12.4		Pass
50	1.42	47	1.42	49	0	4	13.2		Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Biased Humidity Test

Fuse Type and Rating : 0678L 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-213

Fuse Part Number : 0678L9300-XX

Condition : QUAL-WORK-EE

1000 hrs, 85°C 85% RH,10% testing current

Unit	Pre-test DCR/V-drop		After test		% of change		200% rated current	Visual Inspection	Result
	mΩ	mV	mΩ	mV	R	V	0-60s		
51	1.40	45	1.35	45	-4	0	13.5	No Appearance defect	Pass
52	1.41	46	1.35	46	-4	0	12.3		Pass
53	1.43	47	1.38	47	-3	0	11.2		Pass
54	1.43	47	1.38	46	-3	-2	12.3		Pass
55	1.42	46	1.36	45	-4	-2	12.3		Pass
56	1.43	47	1.38	47	-3	0	13.6		Pass
57	1.44	47	1.39	48	-3	2	12.2		Pass
58	1.38	45	1.33	44	-4	-2	11.7		Pass
59	1.38	48	1.33	47	-4	-2	12.4		Pass
60	1.45	51	1.40	50	-3	-2	11.2		Pass
61	1.45	51	1.40	50	-3	-2	12.2		Pass
62	1.38	47	1.32	47	-4	0	12.2		Pass
63	1.38	47	1.34	47	-3	0	12.2		Pass
64	1.40	48	1.36	47	-3	-2	11.8		Pass
65	1.41	48	1.36	48	-4	0	11.7		Pass
66	1.42	49	1.37	49	-4	0	12.5		Pass
67	1.41	49	1.35	48	-4	-2	11.7		Pass
68	1.35	46	1.30	46	-4	0	12.4		Pass
69	1.40	49	1.36	48	-3	-2	11.9		Pass
70	1.39	48	1.34	47	-4	-2	11.1		Pass
71	1.42	49	1.37	48	-4	-2	11.0		Pass
72	1.42	49	1.38	49	-3	0	12.3		Pass
73	1.36	46	1.31	45	-4	-2	13.6		Pass
74	1.42	49	1.36	49	-4	0	10.4		Pass
75	1.39	48	1.34	47	-4	-2	11.7		Pass
76	1.44	50	1.40	50	-3	0	12.2		Pass
77	1.38	48	1.33	48	-4	0	13.5		Pass
78	1.45	51	1.40	50	-3	-2	10.6		Pass
79	1.41	49	1.36	49	-4	0	10.9		Pass
80	1.43	50	1.38	50	-3	0	10.6		Pass

Unit	Pre-test DCR/V-drop		After test		% of change		100% rated current	Visual Inspection	Result
	mΩ	mV	mΩ	mV	R	V	Min.:4 hour		
81	1.46	51	1.42	51	-3	0	>4	No Appearance defect	Pass
82	1.46	51	1.41	50	-3	-2	>4		Pass
83	1.46	51	1.42	51	-3	0	>4		Pass
84	1.48	52	1.44	51	-3	-2	>4		Pass
85	1.45	51	1.42	51	-2	0	>4		Pass
86	1.49	52	1.44	52	-3	0	>4		Pass
87	1.53	54	1.49	53	-3	-2	>4		Pass
88	1.50	53	1.46	52	-3	-2	>4		Pass
89	1.46	50	1.41	50	-3	0	>4		Pass
90	1.47	51	1.43	50	-3	-2	>4		Pass
91	1.52	53	1.46	52	-4	-2	>4		Pass
92	1.45	51	1.41	50	-3	-2	>4		Pass
93	1.48	52	1.43	51	-3	-2	>4		Pass
94	1.42	49	1.37	49	-4	0	>4		Pass
95	1.47	51	1.42	50	-3	-2	>4		Pass
96	1.47	51	1.43	50	-3	-2	>4		Pass
97	1.45	50	1.41	49	-3	-2	>4		Pass
98	1.53	53	1.49	52	-3	-2	>4		Pass
99	1.46	51	1.41	51	-3	0	>4		Pass
100	1.48	52	1.43	51	-3	-2	>4		Pass



Biased Life Test

Fuse Type and Rating : 0678L 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-213

Fuse Part Number : 0678L9300-XX

Condition : QUAL-WORK-EE

1000 hrs, 70°C, 70% testing current

Unit	Pre-test DCR/V-drop		After test		% of change		200% rated current	Visual Inspection	Result
	mΩ	mV	mΩ	mV	R	V	0-60s		
101	1.45	50	1.43	50	-1	0	9.65	No Appearance defect	Pass
102	1.44	50	1.42	50	-1	0	11.0		Pass
103	1.41	48	1.39	48	-1	0	9.90		Pass
104	1.38	47	1.34	47	-3	0	12.3		Pass
105	1.40	48	1.37	48	-2	0	10.7		Pass
106	1.42	49	1.39	48	-2	-2	11.7		Pass
107	1.44	50	1.41	50	-2	0	10.8		Pass
108	1.38	48	1.35	47	-2	-2	12.3		Pass
109	1.43	49	1.41	49	-1	0	12.8		Pass
110	1.38	47	1.34	46	-3	-2	11.6		Pass
111	1.44	50	1.41	49	-2	-2	12.0		Pass
112	1.38	48	1.30	47	-6	-2	11.1		Pass
113	1.38	48	1.35	47	-2	-2	11.2		Pass
114	1.43	50	1.39	51	-3	2	10.6		Pass
115	1.41	49	1.39	49	-1	0	10.8		Pass
116	1.40	48	1.36	48	-3	0	11.2		Pass
117	1.43	50	1.41	50	-1	0	9.33		Pass
118	1.41	50	1.39	50	-1	0	10.5		Pass
119	1.37	47	1.33	46	-3	-2	11.8		Pass
120	1.41	49	1.38	49	-2	0	11.1		Pass
121	1.41	48	1.40	49	-1	2	10.9		Pass
122	1.42	49	1.39	49	-2	0	10.7		Pass
123	1.43	50	1.42	50	-1	0	10.1		Pass
124	1.45	51	1.43	51	-1	0	9.72		Pass
125	1.42	49	1.40	49	-1	0	10.9		Pass
126	1.40	48	1.38	48	-1	0	10.1		Pass
127	1.41	49	1.39	49	-1	0	9.71		Pass
128	1.40	49	1.37	49	-2	0	10.3		Pass
129	1.39	48	1.36	49	-2	2	10.8		Pass
130	1.40	48	1.36	48	-3	0	11.0		Pass

Unit	Pre-test DCR/V-drop		After test		% of change		100% rated current	Visual Inspection	Result
	mΩ	mV	mΩ	mV	R	V	Min.:4 hour		
131	1.48	52	1.46	52	-1	0	>4	No Appearance defect	Pass
132	1.43	49	1.41	49	-1	0	>4		Pass
133	1.52	53	1.52	54	0	2	>4		Pass
134	1.52	53	1.51	54	-1	2	>4		Pass
135	1.47	51	1.46	51	-1	0	>4		Pass
136	1.47	51	1.47	51	0	0	>4		Pass
137	1.45	51	1.44	51	-1	0	>4		Pass
138	1.53	54	1.54	55	1	2	>4		Pass
139	1.44	50	1.41	50	-2	0	>4		Pass
140	1.49	52	1.48	52	-1	0	>4		Pass
141	1.43	50	1.42	50	-1	0	>4		Pass
142	1.50	53	1.48	53	-1	0	>4		Pass
143	1.44	50	1.42	50	-1	0	>4		Pass
144	1.48	52	1.45	52	-2	0	>4		Pass
145	1.45	51	1.43	51	-1	0	>4		Pass
146	1.47	51	1.47	52	0	2	>4		Pass
147	1.47	51	1.46	52	-1	2	>4		Pass
148	1.44	50	1.42	51	-1	2	>4		Pass
149	1.47	51	1.45	52	-1	2	>4		Pass
150	1.44	50	1.42	50	-1	0	>4		Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



On-off Endurance Test & M. S. D.

Fuse Type and Rating : 0678L 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-213

Fuse Part Number : 0678L9300-XX

Condition : IEC 60127-1 9.5

Maximum sustained dissipation

measured at 100 % testing current, 1 hr

Unit	Pre-test DCR/V-drop		D.C. V-drop after 1hr (V)	M.S.D (<2.7W)	Result
	mΩ	mV			
151	1.47	51	0.078	2.35	Pass
152	1.48	51	0.082	2.46	Pass
153	1.42	49	0.076	2.28	Pass
154	1.50	52	0.082	2.45	Pass
155	1.44	50	0.080	2.40	Pass
156	1.48	51	0.086	2.57	Pass
157	1.43	49	0.082	2.45	Pass
158	1.48	51	0.080	2.41	Pass
159	1.52	53	0.083	2.48	Pass
160	1.48	51	0.082	2.46	Pass

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Steady Life Test

Fuse Type and Rating : 0678L 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-213

Fuse Part Number : 0678L9300-XX

Condition : QUAL-WORK-EE

100% testing current, 100 hrs, 25 ± 5 °C

Unit	Pre-test DCR/V-drop		After test		% of change		Result
	mΩ	mV	mΩ	mV	R	V	
161	1.52	54	1.52	54	0	0	Pass
162	1.47	52	1.48	54	1	4	Pass
163	1.48	52	1.48	52	0	0	Pass
164	1.44	50	1.44	51	0	2	Pass
165	1.47	51	1.46	52	-1	2	Pass
166	1.49	53	1.49	53	0	0	Pass
167	1.50	53	1.51	54	1	2	Pass
168	1.56	55	1.58	56	1	2	Pass
169	1.46	51	1.46	52	0	2	Pass
170	1.42	49	1.42	49	0	0	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Temperature Rise Test

Fuse Type and Rating : 0678L 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-213

Fuse Part Number : 0678L9300-XX

Condition : UL 248-14

Apply 100 % testing current until constant temperature at 21°C ambient

Unit	Pre-test DCR/V-drop		15 min	30 min	45 min	60 min	Result
	mΩ	mV	°C	°C	°C	°C	
171	1.45	51	67	70	71	70	Pass
172	1.43	50	73	77	77	77	Pass
173	1.43	50	64	66	65	66	Pass
174	1.49	52	60	62	62	62	Pass
175	1.48	52	73	75	76	75	Pass
176	1.43	50	58	60	61	60	Pass
177	1.50	53	59	61	60	61	Pass
178	1.52	53	68	69	69	68	Pass
179	1.49	52	71	73	74	75	Pass
180	1.45	51	64	67	68	68	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Breaking Capacity Test & Insulation Resistance

Fuse Type and Rating : 0678L 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-213

Fuse Part Number : 0678L9300-XX

Condition : UL 248-14

Breaking capacity test

100A, 250 VAC, power factor = 1

300A, 65 VDC, power factor = 1

MIL-STD-202G, Method 302, Test Condition A Insulation resistance

100 ± 10 VDC test

100A, 250 VAC, power factor = 1						
Unit	Pre-test DCR/V-drop		Power Factor	Breaking Capacity	IR (100V)	Result
	mΩ	mV		Appearance Inspection	GΩ	
181	1.42	50	1	No defect	>10	Pass
182	1.44	50	1	No defect	>10	Pass
183	1.42	49	1	No defect	>10	Pass
184	1.44	50	1	No defect	>10	Pass
185	1.42	50	1	No defect	>10	Pass
186	1.44	50	1	No defect	>10	Pass
187	1.43	50	1	No defect	>10	Pass
188	1.43	50	1	No defect	>10	Pass
189	1.43	50	1	No defect	>10	Pass
190	1.43	49	1	No defect	>10	Pass

300A, 65 VDC, power factor = 1						
Unit	Pre-test DCR/V-drop		Power Factor	Breaking Capacity	IR (100V)	Result
	mΩ	mV		Appearance Inspection	GΩ	
191	1.43	50	1	No defect	>10	Pass
192	1.43	50	1	No defect	>10	Pass
193	1.42	49	1	No defect	>10	Pass
194	1.44	50	1	No defect	>10	Pass
195	1.43	50	1	No defect	>10	Pass
196	1.44	51	1	No defect	>10	Pass
197	1.43	50	1	No defect	>10	Pass
198	1.43	50	1	No defect	>10	Pass
199	1.44	50	1	No defect	>10	Pass
200	1.44	50	1	No defect	>10	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Test at Elevated Temperature

Fuse Type and Rating : 0678L 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-213

Fuse Part Number : 0678L9300-XX

Condition : IEC 60127-1 9.2.2

70 ± 2 °C, 100 % testing current load 1hour

Unit	Pre-test DCR/V-drop		After test		% of change		Result
	mΩ	mV	mΩ	mV	R	V	
201	1.47	51	1.45	50	-1	-2	Pass
202	1.49	53	1.47	52	-1	-2	Pass
203	1.47	51	1.46	51	-1	0	Pass
204	1.44	50	1.42	50	-1	0	Pass
205	1.52	53	1.49	52	-2	-2	Pass
206	1.49	53	1.46	52	-2	-2	Pass
207	1.48	52	1.44	52	-3	0	Pass
208	1.47	51	1.43	51	-3	0	Pass
209	1.44	50	1.42	49	-1	-2	Pass
210	1.47	52	1.45	51	-1	-2	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Time Current Characteristics

Fuse Type and Rating : 0678L 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-213

Fuse Part Number : 0678L9300-XX

Condition : UL 248-14

Time current characteristics shall be within the specification.

100% / 200% testing current

Unit	Pre-test DCR/V-drop		100% rated current	200% rated current	Result
	mΩ	mV	Min.:4 hour	0-60s	
211	1.44	50	>4		Pass
212	1.51	54	>4		Pass
213	1.44	50	>4		Pass
214	1.48	52	>4		Pass
215	1.50	53	>4		Pass
216	1.48	52	>4		Pass
217	1.45	50	>4		Pass
218	1.49	52	>4		Pass
219	1.45	50	>4		Pass
220	1.45	53	>4		Pass
221	1.47	51	>4		Pass
222	1.44	50	>4		Pass
223	1.45	50	>4		Pass
224	1.45	51	>4		Pass
225	1.45	51	>4		Pass
226	1.55	55	>4		Pass
227	1.45	50	>4		Pass
228	1.46	51	>4		Pass
229	1.51	53	>4		Pass
230	1.45	51	>4		Pass
231	1.40	49		13.1	Pass
232	1.41	48		12.4	Pass
233	1.38	48		13.5	Pass
234	1.41	49		13.1	Pass
235	1.41	50		13.7	Pass
236	1.40	49		11.5	Pass
237	1.41	49		11.3	Pass
238	1.40	48		12.9	Pass
239	1.41	49		13.0	Pass
240	1.40	49		13.8	Pass
241	1.41	48		11.8	Pass
242	1.41	50		13.4	Pass
243	1.41	50		13.1	Pass
244	1.40	49		12.4	Pass
245	1.41	49		11.0	Pass
246	1.41	49		12.2	Pass
247	1.40	49		11.4	Pass
248	1.41	49		11.8	Pass
249	1.38	48		12.5	Pass
250	1.41	49		12.9	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Moisture resistance test

Fuse Type and Rating : 0678L 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-213

Fuse Part Number : 0678L9300-XX

Condition : MIL-STD-202G Method 106

10 cycles, 24 hrs, 25 °C to 65 °C then 10°C, 90 - 95 % RH

Unit	Pre-test DCR/V-drop		After test		% change		Appearance Inspection	100% rated current	200% rated current	Result
	mΩ	mV	mΩ	mV	R	V		Min.: 4 hour	0-60 sec	
251	1.45	50	1.44	49	-1	-2	No Defect	>4		Pass
252	1.45	51	1.47	51	1	0	No Defect	>4		Pass
253	1.45	50	1.44	49	-1	-2	No Defect	>4		Pass
254	1.55	55	1.55	53	0	-4	No Defect	>4		Pass
255	1.47	51	1.48	50	1	-2	No Defect	>4		Pass
256	1.46	51	1.46	51	0	0	No Defect	>4		Pass
257	1.45	50	1.45	49	0	-2	No Defect	>4		Pass
258	1.49	54	1.49	51	0	-6	No Defect	>4		Pass
259	1.49	52	1.49	50	0	-4	No Defect	>4		Pass
260	1.45	51	1.45	49	0	-4	No Defect	>4		Pass
261	1.38	47	1.37	46	-1	-2	No Defect		13.7	Pass
262	1.39	48	1.40	48	1	0	No Defect		12.9	Pass
263	1.41	49	1.40	47	-1	-4	No Defect		13.5	Pass
264	1.39	47	1.40	47	1	0	No Defect		11.8	Pass
265	1.41	49	1.41	48	0	-2	No Defect		12.3	Pass
266	1.42	49	1.42	48	0	-2	No Defect		12.0	Pass
267	1.42	49	1.41	48	-1	-2	No Defect		11.6	Pass
268	1.42	49	1.43	49	1	0	No Defect		11.4	Pass
269	1.42	50	1.44	50	1	0	No Defect		12.4	Pass
270	1.42	48	1.40	48	-1	0	No Defect		13.1	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Salt Spray test

Fuse Type and Rating : 0678L 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-213

Fuse Part Number : 0678L9300-XX

Condition : MIL-STD-202G Method 101,Test condition B

Saturated salt spray at 35 °C for 48 hrs

Unit	Initial DCR / V-Drop		After test		% change		Appearance Inspection	100% rated current	200% rated current	Result
	mΩ	mV	mΩ	mV	R	V		Min.: 4 hour	0-60 sec	
271	1.50	53	1.50	52	0	-2	No Defect	>4		Pass
272	1.46	51	1.46	50	0	-2	No Defect	>4		Pass
273	1.48	51	1.47	50	-1	-2	No Defect	>4		Pass
274	1.45	50	1.44	49	-1	-2	No Defect	>4		Pass
275	1.51	52	1.50	51	-1	-2	No Defect	>4		Pass
276	1.45	50	1.44	49	-1	-2	No Defect	>4		Pass
277	1.46	51	1.45	50	-1	-2	No Defect	>4		Pass
278	1.50	53	1.50	52	0	-2	No Defect	>4		Pass
279	1.52	53	1.51	52	-1	-2	No Defect	>4		Pass
280	1.45	51	1.44	50	-1	-2	No Defect	>4		Pass
281	1.42	50	1.41	49	-1	-2	No Defect		12.66	Pass
282	1.42	50	1.42	48	0	-4	No Defect		11.88	Pass
283	1.42	50	1.41	48	-1	-4	No Defect		11.86	Pass
284	1.42	50	1.42	48	0	-4	No Defect		10.77	Pass
285	1.42	49	1.42	49	0	0	No Defect		13.14	Pass
286	1.42	49	1.41	48	-1	-2	No Defect		13.18	Pass
287	1.42	49	1.42	49	0	0	No Defect		10.63	Pass
288	1.42	50	1.41	49	-1	-2	No Defect		14.31	Pass
289	1.42	49	1.42	48	0	-2	No Defect		12.90	Pass
290	1.42	50	1.42	50	0	0	No Defect		12.17	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Mechanical Shock & Vibration test

Fuse Type and Rating : 0678L 30A
 Production Lot Number : ENG'samples (5% Sn plating element)
 Project Number : FPQ-213
 Fuse Part Number : 0678L9300-XX

Condition : MIL-STD-202G Method 213,Test condition Mechanical shock test

100 G's peak for 6 milliseconds; Sawtooth waveform

MIL-STD-202G Method 201

Vibration test

10 - 55 Hz, 0.06 inch total excursion, 2 hrs in each of 3 directions, after Mechanical shock test.

Unit	Pre-test DCR/V-drop		After test		% of change		Appearance Inspection	100% rated current	200% rated current	Result
	mΩ	mV	mΩ	mV	R	V		Min.: 4 hour	0-60 sec	
291	1.46	50	1.44	49	-1	-2	No Defect	>4		Pass
292	1.43	49	1.41	49	-1	0	No Defect	>4		Pass
293	1.48	52	1.46	51	-1	-2	No Defect	>4		Pass
294	1.41	49	1.40	48	-1	-2	No Defect	>4		Pass
295	1.51	53	1.49	51	-1	-4	No Defect	>4		Pass
296	1.47	51	1.44	49	-2	-4	No Defect	>4		Pass
297	1.44	50	1.43	49	-1	-2	No Defect	>4		Pass
298	1.47	51	1.46	50	-1	-2	No Defect	>4		Pass
299	1.48	52	1.46	50	-1	-4	No Defect	>4		Pass
300	1.49	52	1.46	50	-2	-4	No Defect	>4		Pass
301	1.42	49	1.40	47	-1	-4	No Defect		12.4	Pass
302	1.42	49	1.41	48	-1	-2	No Defect		12.4	Pass
303	1.42	50	1.38	48	-3	-4	No Defect		13.1	Pass
304	1.42	49	1.39	47	-2	-4	No Defect		12.4	Pass
305	1.42	50	1.39	47	-2	-6	No Defect		13.4	Pass
306	1.42	49	1.39	47	-2	-4	No Defect		12.1	Pass
307	1.42	49	1.40	48	-1	-2	No Defect		11.3	Pass
308	1.42	50	1.43	49	1	-2	No Defect		11.3	Pass
309	1.42	49	1.39	48	-2	-2	No Defect		10.7	Pass
310	1.42	50	1.38	46	-3	-8	No Defect		11.5	Pass

Reported By: Hu Hong Guo
 Reported Date: Jul 06, 2026



Solderability Test

Fuse Type and Rating : 0678L 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-213

Fuse Part Number : 0678L9300-XX

Condition : **J-STD-002** Solderability test, no aging
J-STD-002 Solderability test, dry aging, 155 °C, 16 hrs
J-STD-002 Solderability test, steam aging, 8 hrs
immerse to flux 5 ± 1 sec then dip in solder bath 245 ± 5 °C, 5 ± 0.5 sec

Unit	Initial DCR / V-Drop		No Age	Dry age	Steam age	Result
	mΩ	mV		155°C, 16 hrs	93°C, 8 hrs	
311	1.44	50	100% solder coverage			Pass
312	1.44	50	100% solder coverage			Pass
313	1.43	50	100% solder coverage			Pass
314	1.43	49	100% solder coverage			Pass
315	1.43	50	100% solder coverage			Pass
316	1.43	49	100% solder coverage			Pass
317	1.43	50	100% solder coverage			Pass
318	1.43	49	100% solder coverage			Pass
319	1.44	51	100% solder coverage			Pass
320	1.44	50	100% solder coverage			Pass
321	1.43	50		100% solder coverage		Pass
322	1.43	50		100% solder coverage		Pass
323	1.44	50		100% solder coverage		Pass
324	1.42	50		100% solder coverage		Pass
325	1.42	49		100% solder coverage		Pass
326	1.43	50		100% solder coverage		Pass
327	1.42	50		100% solder coverage		Pass
328	1.44	50		100% solder coverage		Pass
329	1.44	51		100% solder coverage		Pass
330	1.44	50		100% solder coverage		Pass
331	1.44	50			100% solder coverage	Pass
332	1.43	50			100% solder coverage	Pass
333	1.43	50			100% solder coverage	Pass
334	1.44	51			100% solder coverage	Pass
335	1.44	50			100% solder coverage	Pass
336	1.44	50			100% solder coverage	Pass
337	1.43	50			100% solder coverage	Pass
338	1.42	49			100% solder coverage	Pass
339	1.43	51			100% solder coverage	Pass
340	1.44	50			100% solder coverage	Pass



Resistance to Soldering Heat

Fuse Type and Rating : 0678L 30A
 Production Lot Number : ENG'samples (5% Sn plating element)
 Project Number : FPQ-213
 Fuse Part Number : 0678L9300-XX

Condition : MIL-STD-202G Method 210
 dip solder bath 260 ± 5 °C, 10 ± 1 sec

Unit	Initial DCR / V-Drop		After test		% change		100% rated current	200% rated current	Result
	mΩ	mV	mΩ	mV	R	V	Min.: 4 hour	0-60 sec	
341	1.45	50	1.43	49	-1	-2	>4		Pass
342	1.48	53	1.43	50	-3	-6	>4		Pass
343	1.47	52	1.45	51	-1	-2	>4		Pass
344	1.48	51	1.39	49	-6	-4	>4		Pass
345	1.45	51	1.43	50	-1	-2	>4		Pass
346	1.49	54	1.48	52	-1	-4	>4		Pass
347	1.52	54	1.48	51	-3	-6	>4		Pass
348	1.46	52	1.43	51	-2	-2	>4		Pass
349	1.46	51	1.39	49	-5	-4	>4		Pass
350	1.44	51	1.43	51	-1	0	>4		Pass
351	1.42	49	1.43	50	1	2		13.3	Pass
352	1.42	49	1.39	47	-2	-4		13.3	Pass
353	1.42	48	1.42	51	0	6		11.6	Pass
354	1.42	49	1.40	49	-1	0		12.6	Pass
355	1.42	49	1.41	50	-1	2		12.3	Pass
356	1.42	49	1.43	50	1	2		10.6	Pass
357	1.42	49	1.37	47	-4	-4		13.3	Pass
358	1.42	49	1.43	50	1	2		11.4	Pass
359	1.42	49	1.42	48	0	-2		14.3	Pass
360	1.42	49	1.41	49	-1	0		12.0	Pass

Reported By: Hu Hong Guo
 Reported Date: Jul 06, 2026



Lead Integrity Test / Terminal Strength

Fuse Type and Rating : 0678L 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-213

Fuse Part Number : 0678L9300-XX

Condition : Terminal Strength (Axial Pull test)

5Lbs force for 1minute

Unit	Initial DCR / V-Drop		After test		% change		Appearance inspection	Result
	mΩ	mV	mΩ	mV	R	V		
361	1.42	50	1.41	51	-1	2	No Defect	Pass
362	1.43	50	1.42	49	-1	-2	No Defect	Pass
363	1.42	50	1.42	49	0	-2	No Defect	Pass
364	1.44	51	1.43	50	-1	-2	No Defect	Pass
365	1.42	49	1.40	48	-1	-2	No Defect	Pass
366	1.43	49	1.42	48	-1	-2	No Defect	Pass
367	1.43	49	1.42	48	-1	-2	No Defect	Pass
368	1.44	50	1.44	50	0	0	No Defect	Pass
369	1.44	51	1.45	50	1	-2	No Defect	Pass
370	1.43	50	1.43	50	0	0	No Defect	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Lead Integrity Test / Terminal Strength

Fuse Type and Rating : 0678L 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-213

Fuse Part Number : 0678L9300-XX

Condition : Terminal Strength (Bending test)

Fuse mount on PCB,PCB bent by 1 mm at a rate 1mm/sec

Unit	Pre-test DCR/V-drop		After test		% of change		Appearance inspection	Result
	mΩ	mV	mΩ	mV	R	V		
371	1.43	50	1.43	47	0	-6	No Defect	Pass
372	1.44	50	1.43	47	-1	-6	No Defect	Pass
373	1.44	51	1.43	48	-1	-6	No Defect	Pass
374	1.44	50	1.45	49	1	-2	No Defect	Pass
375	1.42	49	1.42	48	0	-2	No Defect	Pass
376	1.42	50	1.42	47	0	-6	No Defect	Pass
377	1.43	50	1.41	47	-1	-6	No Defect	Pass
378	1.43	50	1.43	48	0	-4	No Defect	Pass
379	1.44	50	1.43	48	-1	-4	No Defect	Pass
380	1.44	50	1.48	50	3	0	No Defect	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Surge resistance cycle test

Fuse Type and Rating : 0678L 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-213

Fuse Part Number : 0678L9300-XX

Condition : QUAL-WORK-EE

1000 cycles rectangle wave,195A peak for 10ms duration, 10 seconds pulse interval

Unit	Pre-test DCR/V-drop		After test		% change		Result
	mΩ	mV	mΩ	mV	R	V	
381	1.50	52	1.54	53	3	2	Pass
382	1.51	53	1.55	54	3	2	Pass
383	1.53	54	1.58	56	3	4	Pass
384	1.45	51	1.46	53	1	4	Pass
385	1.47	51	1.54	54	5	6	Pass
386	1.45	51	1.48	52	2	2	Pass
387	1.48	52	1.53	53	3	2	Pass
388	1.45	50	1.53	52	6	4	Pass
389	1.50	53	1.55	53	3	0	Pass
390	1.52	54	1.57	55	3	2	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



IR reflow soldering

Fuse Type and Rating : 0678L 30A

Production Lot Number : ENG'samples (5% Sn plating ele

Project Number : FPQ-213

Fuse Part Number : 0678L9300-XX

Condition : J-STD-020

Peak temperature 260°C for 30s max. with 3 cycles; 965C Solder paste

Unit	Initial DCR / V-Drop		After reflow soldering		% change		Appearance inspection	Result
	mΩ	mV	mΩ	mV	R	V		
11	1.46	50	1.44	48	-1	-4	No Defect	Pass
12	1.49	52	1.51	51	1	-2	No Defect	Pass
13	1.45	50	1.45	48	0	-4	No Defect	Pass
14	1.45	51	1.47	49	1	-4	No Defect	Pass
15	1.48	51	1.48	49	0	-4	No Defect	Pass
16	1.53	53	1.52	51	-1	-4	No Defect	Pass
17	1.45	50	1.46	49	1	-2	No Defect	Pass
18	1.45	49	1.44	48	-1	-2	No Defect	Pass
19	1.45	49	1.45	47	0	-4	No Defect	Pass
20	1.49	51	1.47	49	-1	-4	No Defect	Pass
21	1.45	51	1.48	49	2	-4	No Defect	Pass
22	1.49	54	1.51	51	1	-6	No Defect	Pass
23	1.49	52	1.48	50	-1	-4	No Defect	Pass
24	1.46	52	1.47	50	1	-4	No Defect	Pass
25	1.49	54	1.54	52	3	-4	No Defect	Pass
26	1.50	52	1.51	50	1	-4	No Defect	Pass
27	1.50	52	1.49	50	-1	-4	No Defect	Pass
28	1.49	52	1.48	49	-1	-6	No Defect	Pass
29	1.45	49	1.44	48	-1	-2	No Defect	Pass
30	1.46	51	1.46	49	0	-4	No Defect	Pass
31	1.41	48	1.39	46	-1	-4	No Defect	Pass
32	1.40	49	1.42	48	1	-2	No Defect	Pass
33	1.41	49	1.41	47	0	-4	No Defect	Pass
34	1.39	48	1.42	46	2	-4	No Defect	Pass
35	1.41	48	1.39	46	-1	-4	No Defect	Pass
36	1.41	48	1.41	46	0	-4	No Defect	Pass
37	1.41	49	1.45	48	3	-2	No Defect	Pass
38	1.40	50	1.46	49	4	-2	No Defect	Pass
39	1.40	47	1.38	45	-1	-4	No Defect	Pass
40	1.40	49	1.41	47	1	-4	No Defect	Pass
41	1.39	48	1.40	46	1	-4	No Defect	Pass
42	1.41	51	1.43	48	1	-6	No Defect	Pass
43	1.41	50	1.43	48	1	-4	No Defect	Pass
44	1.41	48	1.46	46	4	-4	No Defect	Pass
45	1.38	47	1.39	45	1	-4	No Defect	Pass
46	1.40	48	1.39	46	-1	-4	No Defect	Pass
47	1.41	50	1.39	47	-1	-6	No Defect	Pass
48	1.39	48	1.38	45	-1	-6	No Defect	Pass
49	1.40	45	1.36	44	-3	-2	No Defect	Pass
50	1.39	49	1.42	47	2	-4	No Defect	Pass
51	1.41	47	1.40	45	-1	-4	No Defect	Pass
52	1.41	48	1.41	46	0	-4	No Defect	Pass
53	1.40	49	1.43	47	2	-4	No Defect	Pass
54	1.41	48	1.43	47	1	-2	No Defect	Pass
55	1.41	47	1.42	46	1	-2	No Defect	Pass
56	1.39	49	1.43	47	3	-4	No Defect	Pass
57	1.40	49	1.44	47	3	-4	No Defect	Pass
58	1.41	47	1.38	45	-2	-4	No Defect	Pass
59	1.40	51	1.38	48	-1	-6	No Defect	Pass
60	1.40	53	1.45	51	4	-4	No Defect	Pass
61	1.41	53	1.45	51	3	-4	No Defect	Pass
62	1.41	49	1.38	47	-2	-4	No Defect	Pass
63	1.40	49	1.38	47	-1	-4	No Defect	Pass
64	1.40	51	1.40	48	0	-6	No Defect	Pass



IR reflow soldering

Fuse Type and Rating : 0678L 30A

Production Lot Number : ENG'samples (5% Sn plating ele

Project Number : FPQ-213

Fuse Part Number : 0678L9300-XX

Condition : J-STD-020

Peak temperature 260°C for 30s max. with 3 cycles; 965C Solder paste

Unit	Initial DCR / V-Drop		After reflow soldering		% change		Appearance inspection	Result
	mΩ	mV	mΩ	mV	R	V		
65	1.41	50	1.41	48	0	-4	No Defect	Pass
66	1.41	50	1.42	49	1	-2	No Defect	Pass
67	1.41	51	1.41	49	0	-4	No Defect	Pass
68	1.41	48	1.35	46	-4	-4	No Defect	Pass
69	1.41	51	1.40	49	-1	-4	No Defect	Pass
70	1.41	50	1.39	48	-1	-4	No Defect	Pass
71	1.40	50	1.42	49	1	-2	No Defect	Pass
72	1.41	50	1.42	49	1	-2	No Defect	Pass
73	1.38	48	1.36	46	-1	-4	No Defect	Pass
74	1.41	51	1.42	49	1	-4	No Defect	Pass
75	1.38	50	1.39	48	1	-4	No Defect	Pass
76	1.39	51	1.44	50	4	-2	No Defect	Pass
77	1.41	50	1.38	48	-2	-4	No Defect	Pass
78	1.39	53	1.45	51	4	-4	No Defect	Pass
79	1.41	51	1.41	49	0	-4	No Defect	Pass
80	1.40	52	1.43	50	2	-4	No Defect	Pass
81	1.46	54	1.46	51	0	-6	No Defect	Pass
82	1.45	53	1.46	51	1	-4	No Defect	Pass
83	1.45	52	1.46	51	1	-2	No Defect	Pass
84	1.47	54	1.48	52	1	-4	No Defect	Pass
85	1.48	53	1.45	51	-2	-4	No Defect	Pass
86	1.45	54	1.49	52	3	-4	No Defect	Pass
87	1.50	56	1.53	54	2	-4	No Defect	Pass
88	1.49	54	1.50	53	1	-2	No Defect	Pass
89	1.47	51	1.46	50	-1	-2	No Defect	Pass
90	1.46	53	1.47	51	1	-4	No Defect	Pass
91	1.52	55	1.52	53	0	-4	No Defect	Pass
92	1.47	53	1.45	51	-1	-4	No Defect	Pass
93	1.48	55	1.48	52	0	-5	No Defect	Pass
94	1.45	51	1.42	49	-2	-4	No Defect	Pass
95	1.47	53	1.47	51	0	-4	No Defect	Pass
96	1.47	53	1.47	51	0	-4	No Defect	Pass
97	1.48	52	1.45	50	-2	-4	No Defect	Pass
98	1.51	54	1.53	53	1	-2	No Defect	Pass
99	1.46	52	1.46	51	0	-2	No Defect	Pass
100	1.49	53	1.48	52	-1	-2	No Defect	Pass
101	1.41	52	1.45	50	3	-4	No Defect	Pass
102	1.40	52	1.44	50	3	-4	No Defect	Pass
103	1.41	50	1.41	48	0	-4	No Defect	Pass
104	1.38	49	1.38	47	0	-4	No Defect	Pass
105	1.41	49	1.40	48	-1	-2	No Defect	Pass
106	1.41	50	1.42	49	1	-2	No Defect	Pass
107	1.40	52	1.44	50	3	-4	No Defect	Pass
108	1.41	50	1.38	48	-2	-4	No Defect	Pass
109	1.40	51	1.43	49	2	-4	No Defect	Pass
110	1.41	48	1.38	47	-2	-2	No Defect	Pass
111	1.40	52	1.44	50	3	-4	No Defect	Pass
112	1.41	50	1.38	48	-2	-4	No Defect	Pass
113	1.41	50	1.38	48	-2	-4	No Defect	Pass
114	1.41	52	1.43	50	1	-4	No Defect	Pass
115	1.40	50	1.41	49	1	-2	No Defect	Pass
116	1.41	50	1.40	48	-1	-4	No Defect	Pass
117	1.44	51	1.43	50	-1	-2	No Defect	Pass
118	1.43	52	1.41	50	-1	-4	No Defect	Pass



IR reflow soldering

Fuse Type and Rating : 0678L 30A

Production Lot Number : ENG'samples (5% Sn plating ele

Project Number : FPQ-213

Fuse Part Number : 0678L9300-XX

Condition : J-STD-020

Peak temperature 260°C for 30s max. with 3 cycles; 965C Solder paste

Unit	Initial DCR / V-Drop		After reflow soldering		% change		Appearance inspection	Result
	mΩ	mV	mΩ	mV	R	V		
119	1.39	49	1.37	47	-1	-4	No Defect	Pass
120	1.41	51	1.41	49	0	-4	No Defect	Pass
121	1.40	50	1.41	48	1	-4	No Defect	Pass
122	1.43	50	1.42	49	-1	-2	No Defect	Pass
123	1.45	51	1.43	50	-1	-2	No Defect	Pass
124	1.46	53	1.45	51	-1	-4	No Defect	Pass
125	1.42	51	1.42	49	0	-4	No Defect	Pass
126	1.40	50	1.40	48	0	-4	No Defect	Pass
127	1.43	52	1.41	49	-1	-6	No Defect	Pass
128	1.41	51	1.40	49	-1	-4	No Defect	Pass
129	1.40	50	1.39	48	-1	-4	No Defect	Pass
130	1.41	50	1.40	48	-1	-4	No Defect	Pass
131	1.46	54	1.48	52	1	-4	No Defect	Pass
132	1.45	50	1.43	49	-1	-2	No Defect	Pass
133	1.50	56	1.52	53	1	-5	No Defect	Pass
134	1.49	54	1.52	53	2	-2	No Defect	Pass
135	1.45	53	1.47	51	1	-4	No Defect	Pass
136	1.49	53	1.47	51	-1	-4	No Defect	Pass
137	1.48	53	1.45	51	-2	-4	No Defect	Pass
138	1.51	56	1.53	54	1	-4	No Defect	Pass
139	1.46	51	1.44	50	-1	-2	No Defect	Pass
140	1.47	53	1.49	52	1	-2	No Defect	Pass
141	1.45	52	1.43	50	-1	-4	No Defect	Pass
142	1.53	55	1.50	53	-2	-4	No Defect	Pass
143	1.47	52	1.44	50	-2	-4	No Defect	Pass
144	1.46	55	1.48	52	1	-5	No Defect	Pass
145	1.47	53	1.45	51	-1	-4	No Defect	Pass
146	1.48	53	1.47	51	-1	-4	No Defect	Pass
147	1.47	53	1.47	51	0	-4	No Defect	Pass
148	1.45	52	1.44	50	-1	-4	No Defect	Pass
149	1.46	52	1.47	51	1	-2	No Defect	Pass
150	1.47	52	1.44	50	-2	-4	No Defect	Pass
151	1.47	52	1.47	51	0	-2	No Defect	Pass
152	1.49	53	1.48	51	-1	-4	No Defect	Pass
153	1.43	51	1.42	49	-1	-4	No Defect	Pass
154	1.53	54	1.50	52	-2	-4	No Defect	Pass
155	1.46	52	1.44	50	-1	-4	No Defect	Pass
156	1.48	52	1.48	51	0	-2	No Defect	Pass
157	1.44	50	1.43	49	-1	-2	No Defect	Pass
158	1.51	53	1.48	51	-2	-4	No Defect	Pass
159	1.53	55	1.52	53	-1	-4	No Defect	Pass
160	1.49	53	1.48	51	-1	-4	No Defect	Pass
161	1.51	57	1.52	54	1	-5	No Defect	Pass
162	1.48	54	1.47	52	-1	-4	No Defect	Pass
163	1.49	54	1.48	52	-1	-4	No Defect	Pass
164	1.44	52	1.44	50	0	-4	No Defect	Pass
165	1.48	53	1.47	51	-1	-4	No Defect	Pass
166	1.50	56	1.49	53	-1	-5	No Defect	Pass
167	1.52	56	1.50	53	-1	-5	No Defect	Pass
168	1.55	56	1.56	55	1	-2	No Defect	Pass
169	1.49	53	1.46	51	-2	-4	No Defect	Pass
170	1.42	51	1.42	49	0	-4	No Defect	Pass
171	1.46	53	1.45	51	-1	-4	No Defect	Pass
172	1.43	52	1.43	50	0	-4	No Defect	Pass



IR reflow soldering

Fuse Type and Rating : 0678L 30A

Production Lot Number : ENG'samples (5% Sn plating ele

Project Number : FPQ-213

Fuse Part Number : 0678L9300-XX

Condition : J-STD-020

Peak temperature 260°C for 30s max. with 3 cycles; 965C Solder paste

Unit	Initial DCR / V-Drop		After reflow soldering		% change		Appearance inspection	Result
	mΩ	mV	mΩ	mV	R	V		
173	1.44	51	1.43	50	-1	-2	No Defect	Pass
174	1.52	53	1.49	52	-2	-2	No Defect	Pass
175	1.49	54	1.48	52	-1	-4	No Defect	Pass
176	1.44	52	1.43	50	-1	-4	No Defect	Pass
177	1.50	55	1.50	53	0	-4	No Defect	Pass
178	1.51	56	1.52	53	1	-5	No Defect	Pass
179	1.50	54	1.49	52	-1	-4	No Defect	Pass
180	1.46	53	1.45	51	-1	-4	No Defect	Pass
181	1.43	52	1.42	50	-1	-4	No Defect	Pass
182	1.45	52	1.44	50	-1	-4	No Defect	Pass
183	1.43	50	1.42	49	-1	-2	No Defect	Pass
184	1.45	52	1.44	50	-1	-4	No Defect	Pass
185	1.42	51	1.42	50	0	-2	No Defect	Pass
186	1.44	52	1.44	50	0	-4	No Defect	Pass
187	1.46	52	1.43	50	-2	-4	No Defect	Pass
188	1.45	52	1.43	50	-1	-4	No Defect	Pass
189	1.45	52	1.43	50	-1	-4	No Defect	Pass
190	1.47	50	1.43	49	-3	-2	No Defect	Pass
191	1.45	51	1.43	50	-1	-2	No Defect	Pass
192	1.44	52	1.43	50	-1	-4	No Defect	Pass
193	1.44	51	1.42	49	-1	-4	No Defect	Pass
194	1.43	52	1.44	50	1	-4	No Defect	Pass
195	1.46	52	1.43	50	-2	-4	No Defect	Pass
196	1.41	53	1.44	51	2	-4	No Defect	Pass
197	1.41	52	1.43	50	1	-4	No Defect	Pass
198	1.44	52	1.43	50	-1	-4	No Defect	Pass
199	1.41	52	1.44	50	2	-4	No Defect	Pass
200	1.44	52	1.44	50	0	-4	No Defect	Pass
201	1.49	53	1.47	51	-1	-4	No Defect	Pass
202	1.50	54	1.49	53	-1	-2	No Defect	Pass
203	1.47	53	1.47	51	0	-4	No Defect	Pass
204	1.41	52	1.44	50	2	-4	No Defect	Pass
205	1.51	55	1.52	53	1	-4	No Defect	Pass
206	1.50	55	1.49	53	-1	-4	No Defect	Pass
207	1.51	53	1.48	52	-2	-2	No Defect	Pass
208	1.44	52	1.47	51	2	-2	No Defect	Pass
209	1.43	52	1.44	50	1	-4	No Defect	Pass
210	1.49	54	1.47	52	-1	-4	No Defect	Pass
211	1.47	52	1.44	50	-2	-4	No Defect	Pass
212	1.53	57	1.51	54	-1	-5	No Defect	Pass
213	1.43	52	1.44	50	1	-4	No Defect	Pass
214	1.46	54	1.48	52	1	-4	No Defect	Pass
215	1.48	55	1.50	53	1	-4	No Defect	Pass
216	1.48	54	1.48	52	0	-4	No Defect	Pass
217	1.46	52	1.45	50	-1	-4	No Defect	Pass
218	1.53	55	1.49	52	-3	-5	No Defect	Pass
219	1.46	51	1.45	50	-1	-2	No Defect	Pass
220	1.45	55	1.45	53	0	-4	No Defect	Pass
221	1.49	53	1.47	51	-1	-4	No Defect	Pass
222	1.42	52	1.44	50	1	-4	No Defect	Pass
223	1.46	52	1.45	50	-1	-4	No Defect	Pass
224	1.43	52	1.45	51	1	-2	No Defect	Pass
225	1.44	52	1.45	51	1	-2	No Defect	Pass
226	1.52	57	1.55	55	2	-4	No Defect	Pass



IR reflow soldering

Fuse Type and Rating : 0678L 30A

Production Lot Number : ENG'samples (5% Sn plating ele

Project Number : FPQ-213

Fuse Part Number : 0678L9300-XX

Condition : J-STD-020

Peak temperature 260°C for 30s max. with 3 cycles; 965C Solder paste

Unit	Initial DCR / V-Drop		After reflow soldering		% change		Appearance inspection	Result
	mΩ	mV	mΩ	mV	R	V		
227	1.49	52	1.45	50	-3	-4	No Defect	Pass
228	1.44	53	1.46	51	1	-4	No Defect	Pass
229	1.5	56	1.51	53	1	-5	No Defect	Pass
230	1.47	53	1.45	51	-1	-4	No Defect	Pass
231	1.4	51	1.40	49	0	-4	No Defect	Pass
232	1.41	50	1.41	48	0	-4	No Defect	Pass
233	1.4	50	1.38	48	-1	-4	No Defect	Pass
234	1.43	52	1.41	49	-1	-6	No Defect	Pass
235	1.43	51	1.41	50	-1	-2	No Defect	Pass
236	1.43	50	1.40	49	-2	-2	No Defect	Pass
237	1.42	51	1.41	49	-1	-4	No Defect	Pass
238	1.4	50	1.40	48	0	-4	No Defect	Pass
239	1.43	51	1.41	49	-1	-4	No Defect	Pass
240	1.41	51	1.40	49	-1	-4	No Defect	Pass
241	1.4	49	1.41	48	1	-2	No Defect	Pass
242	1.41	51	1.41	50	0	-2	No Defect	Pass
243	1.43	52	1.41	50	-1	-4	No Defect	Pass
244	1.39	51	1.40	49	1	-4	No Defect	Pass
245	1.41	51	1.41	49	0	-4	No Defect	Pass
246	1.42	51	1.41	49	-1	-4	No Defect	Pass
247	1.39	51	1.40	49	1	-4	No Defect	Pass
248	1.44	51	1.41	49	-2	-4	No Defect	Pass
249	1.38	50	1.38	48	0	-4	No Defect	Pass
250	1.4	51	1.41	49	1	-4	No Defect	Pass
251	1.46	53	1.45	50	-1	-6	No Defect	Pass
252	1.43	54	1.45	51	1	-6	No Defect	Pass
253	1.45	51	1.45	50	0	-2	No Defect	Pass
254	1.56	57	1.55	55	-1	-4	No Defect	Pass
255	1.45	53	1.47	51	1	-4	No Defect	Pass
256	1.42	53	1.46	51	3	-4	No Defect	Pass
257	1.44	52	1.45	50	1	-4	No Defect	Pass
258	1.49	55	1.49	54	0	-2	No Defect	Pass
259	1.47	53	1.49	52	1	-2	No Defect	Pass
260	1.45	53	1.45	51	0	-4	No Defect	Pass
261	1.39	49	1.38	47	-1	-4	No Defect	Pass
262	1.37	50	1.39	48	1	-4	No Defect	Pass
263	1.43	51	1.41	49	-1	-4	No Defect	Pass
264	1.37	49	1.39	47	1	-4	No Defect	Pass
265	1.42	51	1.41	49	-1	-4	No Defect	Pass
266	1.42	51	1.42	49	0	-4	No Defect	Pass
267	1.43	51	1.42	49	-1	-4	No Defect	Pass
268	1.44	52	1.42	49	-1	-6	No Defect	Pass
269	1.43	52	1.42	50	-1	-4	No Defect	Pass
270	1.44	49	1.42	48	-1	-2	No Defect	Pass
291	1.45	52	1.46	50	1	-4	No Defect	Pass
292	1.44	51	1.43	49	-1	-4	No Defect	Pass
293	1.5	54	1.48	52	-1	-4	No Defect	Pass
294	1.43	51	1.41	49	-1	-4	No Defect	Pass
295	1.5	54	1.51	53	1	-2	No Defect	Pass
296	1.48	52	1.47	51	-1	-2	No Defect	Pass
297	1.45	52	1.44	50	-1	-4	No Defect	Pass
298	1.48	53	1.47	51	-1	-4	No Defect	Pass
299	1.48	54	1.48	52	0	-4	No Defect	Pass
300	1.5	55	1.49	52	-1	-5	No Defect	Pass



IR reflow soldering

Fuse Type and Rating : 0678L 30A

Production Lot Number : ENG'samples (5% Sn plating ele

Project Number : FPQ-213

Fuse Part Number : 0678L9300-XX

Condition : J-STD-020

Peak temperature 260°C for 30s max. with 3 cycles; 965C Solder paste

Unit	Initial DCR / V-Drop		After reflow soldering		% change		Appearance inspection	Result
	mΩ	mV	mΩ	mV	R	V		
301	1.44	51	1.42	49	-1	-4	No Defect	Pass
302	1.43	51	1.42	49	-1	-4	No Defect	Pass
303	1.42	52	1.42	50	0	-4	No Defect	Pass
304	1.43	51	1.42	49	-1	-4	No Defect	Pass
305	1.43	51	1.42	50	-1	-2	No Defect	Pass
306	1.44	51	1.42	49	-1	-4	No Defect	Pass
307	1.42	50	1.42	49	0	-2	No Defect	Pass
308	1.41	52	1.42	50	1	-4	No Defect	Pass
309	1.42	51	1.42	49	0	-4	No Defect	Pass
310	1.42	52	1.42	50	0	-4	No Defect	Pass
371	1.44	52	1.43	50	-1	-4	No Defect	Pass
372	1.45	51	1.44	50	-1	-2	No Defect	Pass
373	1.45	52	1.44	51	-1	-2	No Defect	Pass
374	1.42	52	1.44	50	1	-4	No Defect	Pass
375	1.44	51	1.42	49	-1	-4	No Defect	Pass
376	1.45	52	1.42	50	-2	-4	No Defect	Pass
377	1.46	52	1.43	50	-2	-4	No Defect	Pass
378	1.45	52	1.43	50	-1	-4	No Defect	Pass
379	1.46	52	1.44	50	-1	-4	No Defect	Pass
380	1.47	52	1.44	50	-2	-4	No Defect	Pass
381	1.53	54	1.50	52	-2	-4	No Defect	Pass
382	1.53	56	1.51	53	-1	-5	No Defect	Pass
383	1.54	57	1.53	54	-1	-5	No Defect	Pass
384	1.45	52	1.45	51	0	-2	No Defect	Pass
385	1.46	53	1.47	51	1	-4	No Defect	Pass
386	1.46	53	1.45	51	-1	-4	No Defect	Pass
387	1.50	54	1.48	52	-1	-4	No Defect	Pass
388	1.46	52	1.45	50	-1	-4	No Defect	Pass
389	1.52	55	1.50	53	-1	-4	No Defect	Pass
390	1.53	57	1.52	54	-1	-5	No Defect	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Fuse Qualification Summary Report - 0678H Fuse series

Fuse Type and Rating : 0678H 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-214

Fuse Part Number : 0678H9300-XX

Reference	Test Description	Testing Condition	Acceptance Criteria	Result
QUAL-WORK-EE	DC Resistance	< 10 % testing current	0.0016 Ω $\pm$ 25%	400 / 400 pass
QUAL-WORK-EE	Voltage drop	100 % testing current until V-drop value constant	Max. 0.09V	400 / 400 pass
QUAL-WORK-EE	Visual inspection	naked by eyes / microscope	no appearance defect	400 / 400 pass
QUAL-WORK-EE	Mechanical dimension	projector / digital caliper	within product specification	10 / 10 pass
MIL-STD-202G Method 107,Test condition B	Thermal Shock test	15 min for extremum, 5 cycles, -65 °C to 125 °C	No appearance defect , shall pass the end points tests	40 / 40 pass
QUAL-WORK-EE	Biased Humidity test	1000 hrs, 85°C, 85% RH,10% testing current	No appearance defect , shall pass the end points tests	50 / 50 pass
QUAL-WORK-EE	Biased Life test	1000 hrs, 70°C, 70% testing current	No appearance defect , shall pass the end points tests	50 / 50 pass
IEC 60127-1 9.5	Maximum sustained dissipation	measured at 100 % testing current, 1 hr	<2.7 W	10 / 10pass
QUAL-WORK-EE	Steady life test	100% testing current, 100 hrs, 25 $\pm$ 5 °C	< 10 % variation on DCR	10 / 10pass
UL 248-14	Fuse link temperature rise test	Apply 100 % testing current until constant temperature	$\leq$ 100 °C	10 / 10 pass
UL 248-14	Breaking capacity test	100A, 250 V _{AC} , power factor = 1	no cracking and deformation on fuse body	30 / 30 pass
UL 248-14	Breaking capacity test	200A, 125 V _{AC} , power factor = 1	no cracking and deformation on fuse body	
UL 248-14	Breaking capacity test	1000A, 125 V _{DC} , power factor = 1	no cracking and deformation on fuse body	
MIL-STD-202G, Method 302, Test Condition A	Insulation resistance	100 $\pm$ 10 V _{DC} test potential, after Breaking Capacity test	$\geq$ 0.01M Ω	
IEC 60127-1 9.2.2	Test at elevated temperature	70 $\pm$ 2 °C, 100 % testing current load 1hour	< 10 % variation on DCR & V-drop	10 / 10 pass
UL 248-14	Time current characteristics	100 % testing current	min. 4 hrs ; max. N/A	20 / 20 pass
UL 248-14	Time current characteristics	200 % testing current	min. N/A ; max. 60 sec.	20 / 20 pass
MIL-STD-202G Method 106	Moisture resistance test	10 cycles, 24 hrs, 25 °C to 65 °C then 10°C, 90 - 95 % RH	No appearance defect , shall pass the end points tests	20 / 20 pass
MIL-STD-202G Method 101,Test condition B	Salt spray test	saturated salt spray at 35 °C for 48 hrs	No appearance defect , shall pass the end points tests	20 / 20 pass
MIL-STD-202G Method 213,Test condition I	Mechanical shock test	100 G's peak for 6 milliseconds; Sawtooth waveform	No appearance defect , shall pass the end points tests	20 / 20 pass
MIL-STD-202G Method 201	Vibration test	10 - 55 Hz, 0.06 inch total excursion, 2 hrs in each of 3 directions, after Mechanical shock test.	No appearance defect , shall pass the end points tests	
J-STD-002	Solderability test, no aging	immerse to flux 5 $\pm$ 1 sec then dip in solder bath 245 $\pm$ 5 °C, 5 $\pm$ 0.5 sec	solder coverage > 95 % of the termination surface	10 / 10 pass
J-STD-002	Solderability test, dry aging, 155 °C, 16 hrs	immerse to flux 5 $\pm$ 1 sec then dip in solder bath 245 $\pm$ 5 °C, 5 $\pm$ 0.5 sec	solder coverage > 95 % of the termination surface	10 / 10 pass
J-STD-002	Solderability test, steam aging, 8 hrs	immerse to flux 5 $\pm$ 1 sec then dip in solder bath 245 $\pm$ 5 °C, 5 $\pm$ 0.5 sec	solder coverage > 95 % of the termination surface	10 / 10 pass
MIL-STD-202G Method 210	Resistance to soldering heat test	dip solder bath 260 $\pm$ 5 °C, 10 $\pm$ 1 sec	< 10 % variation on DCR & V-drop, shall pass the end points tests	20 / 20 pass
IEC 60068-2-21	Terminal Strength (Axial Pull test)	5Lbs force for 1minute	termination remains firmly attached, <10 % variation on DCR&V-drop	10 / 10 pass
IEC 60068-2-21	Terminal Strength (Bending test)	Fuse mount on PCB,PCB bent by 1 mm at a rate 1mm/sec	termination remains firmly attached, <10 % variation on DCR&V-drop	10 / 10 pass
QUAL-WORK-EE	Surge resistance cycle test	1000 cycles rectangle wave,194A peak for 10ms duration, 10 seconds pulse interval	< 10% variation on DCR & V-drop	10 / 10 pass
J-STD-020	IR reflow soldering	Peak temperature 260°C for 30s max. with 3 cycles; 96SC Solder paste	< 10% variation on DCR & V-drop, No appearance defect	310 / 310 pass

Reported By: Hu Hong Guo

Approved By: Simon Chiu

Reported Date: Jul 06, 2026



Mechanical Dimension

Fuse Type and Rating : 0678H 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-214

Fuse Part Number : 0678H9300-XX

Condition : **projector / digital caliper**
 within product specification

Unit	Initial DCR / V-Drop		Length 9.6-10.0mm	Width 2.92-3.18mm	Result
	mΩ	mV			
1	1.59	55	9.76	3.15	Pass
2	1.59	56	9.75	3.12	Pass
3	1.62	56	9.80	3.14	Pass
4	1.60	57	9.75	3.14	Pass
5	1.61	58	9.82	3.18	Pass
6	1.60	56	9.77	3.13	Pass
7	1.62	57	9.81	3.16	Pass
8	1.61	58	9.83	3.18	Pass
9	1.59	56	9.78	3.14	Pass
10	1.60	57	9.82	3.18	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Thermal Shock Test

Fuse Type and Rating : 0678H 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-214

Fuse Part Number : 0678H9300-XX

Condition : QUAL-WORK-EE

15 min for extremum, 5 cycles, -65 °C to 125 °C

Unit	Pre test DCR/V-drop		After test		% of change		100% rated current	Visual Inspection	Result
	mΩ	mV	mΩ	mV	R	V	Min.:4 hour		
11	1.63	57	1.61	55	-1	-4	>4	No Appearance defect	Pass
12	1.71	61	1.72	59	1	-3	>4		Pass
13	1.62	56	1.61	54	-1	-4	>4		Pass
14	1.72	62	1.73	60	1	-3	>4		Pass
15	1.63	57	1.62	55	-1	-4	>4		Pass
16	1.67	59	1.68	58	1	-2	>4		Pass
17	1.72	61	1.74	60	1	-2	>4		Pass
18	1.65	57	1.67	56	1	-2	>4		Pass
19	1.71	60	1.72	59	1	-2	>4		Pass
20	1.63	58	1.64	56	1	-3	>4		Pass
21	1.61	56	1.60	54	-1	-4	>4		Pass
22	1.63	58	1.64	56	1	-3	>4		Pass
23	1.67	60	1.67	58	0	-3	>4		Pass
24	1.70	60	1.70	59	0	-2	>4		Pass
25	1.68	59	1.68	58	0	-2	>4		Pass
26	1.65	57	1.65	56	0	-2	>4		Pass
27	1.66	59	1.68	57	1	-3	>4		Pass
28	1.70	60	1.70	59	0	-2	>4		Pass
29	1.66	57	1.65	56	-1	-2	>4		Pass
30	1.68	59	1.68	58	0	-2	>4		Pass
Unit	Pre test DCR/V-drop		After test		% of change		200% rated current	Visual Inspection	Result
	mΩ	mV	mΩ	mV	R	V	0-60s		
31	1.56	54	1.54	53	-1	-2	14.0	No Appearance defect	Pass
32	1.59	55	1.60	54	1	-2	11.7		Pass
33	1.53	53	1.52	52	-1	-2	14.4		Pass
34	1.55	54	1.55	52	0	-4	9.65		Pass
35	1.60	56	1.59	54	-1	-4	7.07		Pass
36	1.55	54	1.54	52	-1	-4	13.8		Pass
37	1.57	55	1.56	53	-1	-4	16.2		Pass
38	1.57	54	1.56	53	-1	-2	13.1		Pass
39	1.62	57	1.62	55	0	-4	12.2		Pass
40	1.61	56	1.60	54	-1	-4	12.7		Pass
41	1.56	54	1.56	53	0	-2	13.1		Pass
42	1.61	56	1.60	55	-1	-2	12.8		Pass
43	1.60	56	1.59	55	-1	-2	12.6		Pass
44	1.57	54	1.56	52	-1	-4	17.2		Pass
45	1.60	56	1.59	54	-1	-4	11.5		Pass
46	1.60	56	1.60	55	0	-2	13.0		Pass
47	1.54	54	1.53	53	-1	-2	16.2		Pass
48	1.60	56	1.60	55	0	-2	10.6		Pass
49	1.60	56	1.59	55	-1	-2	11.2		Pass
50	1.63	57	1.62	56	-1	-2	15.9		Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Biased Humidity Test

Fuse Type and Rating : 0678H 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-214

Fuse Part Number : 0678H9300-XX

Condition : QUAL-WORK-EE

1000 hrs, 85°C 85% RH,10% testing current

Unit	Pre test DCR/V-drop		After test		% of change		200% rated current 0-60s	Visual Inspection	Result
	mΩ	mV	mΩ	mV	R	V			
51	1.58	55	1.53	54	-3	-2	19.9	No Appearance defect	Pass
52	1.53	53	1.50	52	-2	-2	23.6		Pass
53	1.54	54	1.51	54	-2	0	21.1		Pass
54	1.56	54	1.53	53	-2	-2	21.2		Pass
55	1.57	54	1.54	54	-2	0	20.3		Pass
56	1.56	54	1.53	53	-2	-2	18.8		Pass
57	1.58	55	1.55	54	-2	-2	19.0		Pass
58	1.54	54	1.50	53	-3	-2	19.3		Pass
59	1.59	55	1.56	54	-2	-2	20.2		Pass
60	1.58	55	1.54	54	-3	-2	20.6		Pass
61	1.57	55	1.53	52	-3	-5	18.8		Pass
62	1.59	55	1.57	54	-1	-2	22.2		Pass
63	1.58	56	1.54	53	-3	-5	20.2		Pass
64	1.62	57	1.60	57	-1	0	20.4		Pass
65	1.56	54	1.52	53	-3	-2	22.8		Pass
66	1.57	55	1.54	54	-2	-2	21.3		Pass
67	1.58	55	1.54	54	-3	-2	20.8		Pass
68	1.56	54	1.53	53	-2	-2	22.8		Pass
69	1.58	56	1.55	54	-2	-4	19.9		Pass
70	1.58	55	1.55	54	-2	-2	21.7		Pass
71	1.57	55	1.54	54	-2	-2	24.1		Pass
72	1.6	56	1.55	55	-3	-2	18.6		Pass
73	1.58	55	1.55	55	-2	0	22.5		Pass
74	1.56	54	1.52	53	-3	-2	20.3		Pass
75	1.54	53	1.50	52	-3	-2	21.2		Pass
76	1.56	54	1.52	53	-3	-2	21.7		Pass
77	1.58	55	1.54	54	-3	-2	21.0		Pass
78	1.58	55	1.54	55	-3	0	21.2		Pass
79	1.57	56	1.54	55	-2	-2	22.7		Pass
80	1.63	58	1.60	56	-2	-3	22.1		Pass

Unit	Pre test DCR/V-drop		After test		% of change		100% rated current Min.:4 hour	Visual Inspection	Result
	mΩ	mV	mΩ	mV	R	V			
81	1.71	60	1.67	59	-2	-2	>4	No Appearance defect	Pass
82	1.76	63	1.72	62	-2	-2	>4		Pass
83	1.61	57	1.57	57	-2	0	>4		Pass
84	1.67	59	1.65	58	-1	-2	>4		Pass
85	1.7	60	1.67	60	-2	0	>4		Pass
86	1.72	61	1.68	60	-2	-2	>4		Pass
87	1.67	60	1.65	60	-1	0	>4		Pass
88	1.64	57	1.59	56	-3	-2	>4		Pass
89	1.68	60	1.64	59	-2	-2	>4		Pass
90	1.7	61	1.67	60	-2	-2	>4		Pass
91	1.59	56	1.55	55	-3	-2	>4		Pass
92	1.61	57	1.57	56	-2	-2	>4		Pass
93	1.63	58	1.6	58	-2	0	>4		Pass
94	1.63	57	1.59	57	-2	0	>4		Pass
95	1.6	57	1.56	56	-3	-2	>4		Pass
96	1.65	58	1.61	58	-2	0	>4		Pass
97	1.61	56	1.57	55	-2	-2	>4		Pass
98	1.62	58	1.58	57	-2	-2	>4		Pass
99	1.64	57	1.61	57	-2	0	>4		Pass
100	1.61	57	1.57	56	-2	-2	>4		Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Biased Life Test

Fuse Type and Rating : 0678H 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-214

Fuse Part Number : 0678H9300-XX

Condition : QUAL-WORK-EE

1000 hrs, 70°C, 70% testing current

Unit	Pre test DCR/V-drop		After test		% of change		200% rated current	Visual Inspection	Result
	mΩ	mV	mΩ	mV	R	V	0-60s		
101	1.54	53	1.49	52	-3	-2	21.5	No Appearance defect	Pass
102	1.54	53	1.50	54	-3	2	22.2		Pass
103	1.66	59	1.62	57	-2	-3	21.0		Pass
104	1.60	56	1.56	56	-3	0	19.3		Pass
105	1.57	55	1.53	54	-3	-2	17.9		Pass
106	1.58	55	1.55	55	-2	0	21.2		Pass
107	1.61	56	1.58	56	-2	0	21.2		Pass
108	1.57	55	1.54	55	-2	0	21.1		Pass
109	1.57	54	1.54	54	-2	0	19.8		Pass
110	1.60	56	1.57	55	-2	-2	21.4		Pass
111	1.59	55	1.56	55	-2	0	19.6		Pass
112	1.59	55	1.56	55	-2	0	21.5		Pass
113	1.58	54	1.55	55	-2	2	21.2		Pass
114	1.58	55	1.54	55	-3	0	21.3		Pass
115	1.56	54	1.53	54	-2	0	21.8		Pass
116	1.55	54	1.52	53	-2	-2	19.7		Pass
117	1.57	55	1.53	55	-3	0	19.9		Pass
118	1.57	55	1.54	54	-2	-2	19.1		Pass
119	1.59	56	1.56	55	-2	-2	21.0		Pass
120	1.56	54	1.53	54	-2	0	19.0		Pass
121	1.56	54	1.53	53	-2	-2	22.6		Pass
122	1.56	54	1.55	54	-1	0	17.1		Pass
123	1.54	54	1.51	53	-2	-2	15.5		Pass
124	1.58	56	1.56	55	-1	-2	21.1		Pass
125	1.56	54	1.53	54	-2	0	19.0		Pass
126	1.52	53	1.49	53	-2	0	22.4		Pass
127	1.58	56	1.54	55	-3	-2	18.9		Pass
128	1.52	53	1.49	52	-2	-2	18.6		Pass
129	1.57	54	1.54	55	-2	2	20.2		Pass
130	1.56	55	1.53	54	-2	-2	19.0		Pass

Unit	Pre test DCR/V-drop		After test		% of change		100% rated current	Visual Inspection	Result
	mΩ	mV	mΩ	mV	R	V	Min.:4 hour		
131	1.62	57	1.59	57	-2	0	>4	No Appearance defect	Pass
132	1.61	57	1.58	57	-2	0	>4		Pass
133	1.64	58	1.61	57	-2	-2	>4		Pass
134	1.62	57	1.59	57	-2	0	>4		Pass
135	1.61	57	1.58	57	-2	0	>4		Pass
136	1.62	57	1.59	58	-2	2	>4		Pass
137	1.61	56	1.58	56	-2	0	>4		Pass
138	1.58	56	1.55	55	-2	-2	>4		Pass
139	1.62	56	1.59	57	-2	2	>4		Pass
140	1.62	57	1.59	56	-2	-2	>4		Pass
141	1.63	57	1.6	57	-2	0	>4		Pass
142	1.61	56	1.58	55	-2	-2	>4		Pass
143	1.64	57	1.61	57	-2	0	>4		Pass
144	1.59	56	1.56	56	-2	0	>4		Pass
145	1.61	56	1.59	56	-1	0	>4		Pass
146	1.59	55	1.57	56	-1	2	>4		Pass
147	1.64	58	1.62	58	-1	0	>4		Pass
148	1.57	55	1.55	55	-1	0	>4		Pass
149	1.69	59	1.68	59	-1	0	>4		Pass
150	1.62	57	1.61	56	-1	-2	>4		Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



On-off Endurance Test & M. S. D.

Fuse Type and Rating : 0678H 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-214

Fuse Part Number : 0678H9300-XX

Condition : IEC 60127-1 9.5

Maximum sustained dissipation

measured at 100 % testing current, 1 hr

Unit	Pre test DCR/V-drop		D.C. V-drop after 1hr (V)	M.S.D (<2.7W)	Result
	mΩ	mV			
151	1.58	55	0.082	2.46	Pass
152	1.61	57	0.081	2.44	Pass
153	1.62	57	0.081	2.43	Pass
154	1.63	57	0.082	2.46	Pass
155	1.62	57	0.080	2.40	Pass
156	1.69	59	0.083	2.48	Pass
157	1.66	58	0.083	2.48	Pass
158	1.63	57	0.083	2.48	Pass
159	1.58	55	0.081	2.43	Pass
160	1.66	57	0.082	2.47	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Steady Life Test

Fuse Type and Rating : 0678H 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-214

Fuse Part Number : 0678H9300-XX

Condition : QUAL-WORK-EE

100% testing current, 100 hrs, 25 ± 5 °C

Unit	Pre test DCR/V-drop		After test		% of change		Result
	mΩ	mV	mΩ	mV	R	V	
161	1.63	57	1.62	57	-1	0	Pass
162	1.63	58	1.62	58	-1	0	Pass
163	1.68	59	1.67	59	-1	0	Pass
164	1.63	57	1.62	57	-1	0	Pass
165	1.56	55	1.56	55	0	0	Pass
166	1.64	57	1.62	58	-1	2	Pass
167	1.65	58	1.64	58	-1	0	Pass
168	1.64	58	1.64	60	0	3	Pass
169	1.61	56	1.60	56	-1	0	Pass
170	1.56	55	1.57	55	1	0	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Temperature Rise Test

Fuse Type and Rating : 0678H 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-214

Fuse Part Number : 0678H9300-XX

Condition : UL 248-14

Apply 100 % testing current until constant temperature

Ambient temperature: 25°C

Unit	Pre test DCR/V-drop		15 min	30 min	45 min	60 min	Result
	mΩ	mV	°C	°C	°C	°C	
171	1.68	59	79	82	83	82	Pass
172	1.66	58	82	80	82	81	Pass
173	1.60	56	86	86	88	87	Pass
174	1.57	55	78	77	78	78	Pass
175	1.09	59	69	71	70	71	Pass
176	1.07	59	88	84	84	83	Pass
177	1.64	57	72	72	71	72	Pass
178	1.68	59	85	85	86	86	Pass
179	1.65	57	87	90	90	89	Pass
180	1.64	57	88	91	90	90	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Breaking Capacity Test & Insulation Resistance

Fuse Type and Rating : 0678H 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-214

Fuse Part Number : 0678H9300-XX

Condition : UL 248-14

Breaking capacity test

100A, 250 VAC, power factor = 1

200A, 125 VAC, power factor = 1

1000A, 125 VDC, power factor = 1

MIL-STD-202G, Method 302, Test Condition A Insulation resistance

100 ± 10 VDC test

100A, 250 VAC, power factor = 1						
Unit	Pre test DCR/V-drop		Power Factor	Breaking Capacity	IR (100V)	Result
	mΩ	mV		Appearance Inspection	GΩ	
181	1.60	57	1	No defect	6.4	Pass
182	1.60	56	1	No defect	2.99	Pass
183	1.61	57	1	No defect	1.12	Pass
184	1.59	55	1	No defect	0.628	Pass
185	1.59	55	1	No defect	>10	Pass
186	1.59	56	1	No defect	0.758	Pass
187	1.62	59	1	No defect	1.11	Pass
188	1.62	57	1	No defect	5.3	Pass
189	1.62	57	1	No defect	2.45	Pass
190	1.60	57	1	No defect	0.257	Pass

200A, 125 VAC, power factor = 1						
Unit	Pre test DCR/V-drop		Power Factor	Breaking Capacity	IR (100V)	Result
	mΩ	mV		Appearance Inspection	GΩ	
191	1.60	57	1	No defect	2.08	Pass
192	1.60	56	1	No defect	0.921	Pass
193	1.60	57	1	No defect	1.70	Pass
194	1.60	57	1	No defect	>10	Pass
195	1.59	55	1	No defect	0.669	Pass
196	1.60	58	1	No defect	0.647	Pass
197	1.61	57	1	No defect	0.977	Pass
198	1.60	56	1	No defect	3.14	Pass
199	1.59	56	1	No defect	0.829	Pass
200	1.62	58	1	No defect	0.525	Pass

1000A, 125 VDC, power factor = 1						
Unit	Pre test DCR/V-drop		Power Factor	Breaking Capacity	IR (100V)	Result
	mΩ	mV		Appearance Inspection	GΩ	
201	1.65	58	1	No defect	>10	Pass
202	1.71	61	1	No defect	>10	Pass
203	1.69	60	1	No defect	>10	Pass
204	1.62	56	1	No defect	>10	Pass
205	1.66	58	1	No defect	>10	Pass
206	1.61	57	1	No defect	>10	Pass
207	1.66	58	1	No defect	9.3	Pass
208	1.64	57	1	No defect	>10	Pass
209	1.63	57	1	No defect	>10	Pass
210	1.67	59	1	No defect	>10	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Test at Elevated Temperature

Fuse Type and Rating : 0678H 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-214

Fuse Part Number : 0678H9300-XX

Condition : IEC 60127-1 9.2.2

70 ± 2 °C, 100 % testing current load 1hour

Unit	Pre test DCR/V-drop		After test		% of change		Result
	mΩ	mV	mΩ	mV	R	V	
211	1.63	57	1.60	56	-2	-2	Pass
212	1.72	62	1.71	61	-1	-2	Pass
213	1.65	58	1.62	57	-2	-2	Pass
214	1.64	57	1.63	57	-1	0	Pass
215	1.62	57	1.60	57	-1	0	Pass
216	1.70	60	1.68	60	-1	0	Pass
217	1.72	61	1.70	61	-1	0	Pass
218	1.71	61	1.70	60	-1	-2	Pass
219	1.67	59	1.65	59	-1	0	Pass
220	1.65	58	1.62	57	-2	-2	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Time Current Characteristics

Fuse Type and Rating : 0678H 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-214

Fuse Part Number : 0678H9300-XX

Condition : UL 248-14

Time current characteristics shall be within the specification.

100% / 200% testing current

Unit	Pre test DCR/V-drop		100% rated current	200% rated current	Result
	mΩ	mV	Min.:4 hour	0-60s	
221	1.68	59	>4		Pass
222	1.61	56	>4		Pass
223	1.69	60	>4		Pass
224	1.60	56	>4		Pass
225	1.67	59	>4		Pass
226	1.68	60	>4		Pass
227	1.62	57	>4		Pass
228	1.64	57	>4		Pass
229	1.67	58	>4		Pass
230	1.68	60	>4		Pass
231	1.53	53	>4		Pass
232	1.55	54	>4		Pass
233	1.54	54	>4		Pass
234	1.58	55	>4		Pass
235	1.54	54	>4		Pass
236	1.57	54	>4		Pass
237	1.58	55	>4		Pass
238	1.57	55	>4		Pass
239	1.55	54	>4		Pass
240	1.56	54	>4		Pass
241	1.56	55		21.4	Pass
242	1.60	57		17.2	Pass
243	1.53	53		22.4	Pass
244	1.54	53		21.0	Pass
245	1.53	54		19.6	Pass
246	1.57	55		20.9	Pass
247	1.56	55		20.4	Pass
248	1.58	55		23.1	Pass
249	1.58	55		21.7	Pass
250	1.53	53		21.3	Pass
251	1.64	57		19.0	Pass
252	1.64	58		18.3	Pass
253	1.63	58		20.2	Pass
254	1.68	60		18.8	Pass
255	1.64	58		16.6	Pass
256	1.65	59		18.2	Pass
257	1.59	56		19.8	Pass
258	1.64	58		19.6	Pass
259	1.63	58		19.2	Pass
260	1.65	59		18.9	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Moisture resistance test

Fuse Type and Rating : 0678H 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-214

Fuse Part Number : 0678H9300-XX

Condition : MIL-STD-202G Method 106

10 cycles, 24 hrs, 25 °C to 65 °C then 10°C, 90 - 95 % RH

Unit	Pre test DCR/V-drop		After test		% change		Appearance Inspection	100% rated current	200% rated current	Result
	mΩ	mV	mΩ	mV	R	V		Min.: 4 hour	0-60 sec	
261	1.63	59	1.59	55	-2	-7	No Defect	>4		Pass
262	1.63	58	1.59	55	-2	-5	No Defect	>4		Pass
263	1.63	59	1.61	56	-1	-5	No Defect	>4		Pass
264	1.63	57	1.62	56	-1	-2	No Defect	>4		Pass
265	1.63	57	1.62	57	-1	0	No Defect	>4		Pass
266	1.63	58	1.60	56	-2	-3	No Defect	>4		Pass
267	1.63	58	1.67	59	2	2	No Defect	>4		Pass
268	1.63	57	1.63	56	0	-2	No Defect	>4		Pass
269	1.63	56	1.63	57	0	2	No Defect	>4		Pass
270	1.63	58	1.62	56	-1	-3	No Defect	>4		Pass
271	1.59	56	1.60	55	1	-2	No Defect		24.1	Pass
272	1.59	56	1.59	56	0	0	No Defect		19.9	Pass
273	1.62	56	1.60	55	-1	-2	No Defect		19.9	Pass
274	1.60	55	1.59	55	-1	0	No Defect		20.5	Pass
275	1.58	56	1.60	55	1	-2	No Defect		24.4	Pass
276	1.58	56	1.61	55	2	-2	No Defect		18.1	Pass
277	1.58	55	1.58	54	0	-2	No Defect		20.3	Pass
278	1.58	56	1.63	56	3	0	No Defect		20.1	Pass
279	1.57	55	1.61	56	3	2	No Defect		19.6	Pass
280	1.58	55	1.59	55	1	0	No Defect		19.7	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Salt Spray test

Fuse Type and Rating : 0678H 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-214

Fuse Part Number : 0678H9300-XX

Condition : MIL-STD-202G Method 101, Test condition B
saturated salt spray at 35 °C for 48 hrs

Unit	Initial DCR / V-Drop		After test		% change		Appearance Inspection	100% rated current	200% rated current	Result
	mΩ	mV	mΩ	mV	R	V		Min.: 4 hour	0-60 sec	
281	1.63	58	1.63	56	0	-3	No Defect	>4		Pass
282	1.63	57	1.61	56	-1	-2	No Defect	>4		Pass
283	1.63	57	1.62	56	-1	-2	No Defect	>4		Pass
284	1.63	57	1.63	56	0	-2	No Defect	>4		Pass
285	1.63	58	1.62	57	-1	-2	No Defect	>4		Pass
286	1.63	57	1.62	57	-1	0	No Defect	>4		Pass
287	1.62	58	1.61	56	-1	-3	No Defect	>4		Pass
288	1.62	58	1.62	57	0	-2	No Defect	>4		Pass
289	1.62	56	1.61	56	-1	0	No Defect	>4		Pass
290	1.62	57	1.61	56	-1	-2	No Defect	>4		Pass
291	1.58	56	1.57	56	-1	0	No Defect		24.2	Pass
292	1.58	55	1.57	55	-1	0	No Defect		22.7	Pass
293	1.58	56	1.58	56	0	0	No Defect		20.5	Pass
294	1.58	56	1.57	55	-1	-2	No Defect		23.3	Pass
295	1.57	55	1.57	54	0	-2	No Defect		23.6	Pass
296	1.57	55	1.56	55	-1	0	No Defect		21.0	Pass
297	1.57	56	1.55	54	-1	-4	No Defect		18.2	Pass
298	1.58	56	1.57	55	-1	-2	No Defect		20.6	Pass
299	1.58	55	1.56	54	-1	-2	No Defect		22.0	Pass
300	1.58	56	1.57	55	-1	-2	No Defect		20.3	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Mechanical Shock & Vibration test

Fuse Type and Rating : 0678H 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-214

Fuse Part Number : 0678H9300-XX

Condition : MIL-STD-202G Method 213,Test condition Mechanical shock test

100 G's peak for 6 milliseconds; Sawtooth waveform

MIL-STD-202G Method 201

Vibration test

10 - 55 Hz, 0.06 inch total excursion, 2 hrs in each of 3 directions, after Mechanical shock test.

Unit	Pre test DCR/V-drop		After test		% of change		Appearance Inspection	100% rated current	200% rated current	Result
	mΩ	mV	mΩ	mV	R	V		Min.: 4 hour	0-60 sec	
301	1.62	56	1.60	57	-1	2	No Defect	>4		Pass
302	1.62	57	1.60	56	-1	-2	No Defect	>4		Pass
303	1.62	57	1.58	56	-2	-2	No Defect	>4		Pass
304	1.62	56	1.61	56	-1	0	No Defect	>4		Pass
305	1.62	56	1.59	54	-2	-4	No Defect	>4		Pass
306	1.62	58	1.61	55	-1	-5	No Defect	>4		Pass
307	1.62	57	1.59	55	-2	-4	No Defect	>4		Pass
308	1.62	57	1.59	55	-2	-4	No Defect	>4		Pass
309	1.62	57	1.62	56	0	-2	No Defect	>4		Pass
310	1.62	57	1.59	55	-2	-4	No Defect	>4		Pass
311	1.60	56	1.57	55	-2	-2	No Defect		18.7	Pass
312	1.60	56	1.58	54	-1	-4	No Defect		19.3	Pass
313	1.61	57	1.54	53	-4	-7	No Defect		21.2	Pass
314	1.59	56	1.53	54	-4	-4	No Defect		22.1	Pass
315	1.59	56	1.54	55	-3	-2	No Defect		19.7	Pass
316	1.59	56	1.57	54	-1	-4	No Defect		20.2	Pass
317	1.59	57	1.59	54	0	-5	No Defect		18.2	Pass
318	1.61	57	1.52	52	-6	-9	No Defect		18.9	Pass
319	1.61	57	1.55	53	-4	-7	No Defect		19.5	Pass
320	1.60	56	1.56	53	-3	-5	No Defect		21.2	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Solderability Test

Fuse Type and Rating : 0678H 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-214

Fuse Part Number : 0678H9300-XX

Condition : **J-STD-002** Solderability test, no aging
J-STD-002 Solderability test, dry aging, 155 °C, 16 hrs
J-STD-002 Solderability test, steam aging, 8 hrs
immerse to flux 5 ± 1 sec then dip in solder bath 245 ± 5 °C, 5 ± 0.5 sec

Unit	Initial DCR / V-Drop		No Age	Dry age	Steam age	Result
	mΩ	mV		155°C, 16 hrs	93°C, 8 hrs	
321	1.62	57	100% solder coverage			Pass
322	1.61	57	100% solder coverage			Pass
323	1.61	57	100% solder coverage			Pass
324	1.62	56	100% solder coverage			Pass
325	1.62	58	100% solder coverage			Pass
326	1.61	57	100% solder coverage			Pass
327	1.62	57	100% solder coverage			Pass
328	1.61	57	100% solder coverage			Pass
329	1.60	56	100% solder coverage			Pass
330	1.62	57	100% solder coverage			Pass
331	1.62	58		100% solder coverage		Pass
332	1.62	57		100% solder coverage		Pass
333	1.62	57		100% solder coverage		Pass
334	1.61	58		100% solder coverage		Pass
335	1.60	57		100% solder coverage		Pass
336	1.61	56		100% solder coverage		Pass
337	1.61	57		100% solder coverage		Pass
338	1.60	56		100% solder coverage		Pass
339	1.58	55		100% solder coverage		Pass
340	1.61	57		100% solder coverage		Pass
341	1.60	57			100% solder coverage	Pass
342	1.60	56			100% solder coverage	Pass
343	1.60	57			100% solder coverage	Pass
344	1.61	58			100% solder coverage	Pass
345	1.60	57			100% solder coverage	Pass
346	1.60	57			100% solder coverage	Pass
347	1.60	56			100% solder coverage	Pass
348	1.61	57			100% solder coverage	Pass
349	1.61	57			100% solder coverage	Pass
350	1.61	57			100% solder coverage	Pass



Resistance to Soldering Heat

Fuse Type and Rating : 0678H 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-214

Fuse Part Number : 0678H9300-XX

Condition : MIL-STD-202G Method 210

dip solder bath 260 ± 5 °C, 10 ± 1 sec

Unit	Initial DCR / V-Drop		After test		% change		100% rated current	200% rated current	Result
	mΩ	mV	mΩ	mV	R	V	Min.: 4 hour	0-60 sec	
351	1.62	57	1.59	57	-2	0	>4		Pass
352	1.62	57	1.56	56	-4	-2	>4		Pass
353	1.62	58	1.56	55	-4	-5	>4		Pass
354	1.62	58	1.59	56	-2	-3	>4		Pass
355	1.62	57	1.61	56	-1	-2	>4		Pass
356	1.62	57	1.56	53	-4	-7	>4		Pass
357	1.62	57	1.54	53	-5	-7	>4		Pass
358	1.62	58	1.57	54	-3	-7	>4		Pass
359	1.62	58	1.55	54	-4	-7	>4		Pass
360	1.62	58	1.61	56	-1	-3	>4		Pass
361	1.58	56	1.56	55	-1	-2		18.9	Pass
362	1.62	58	1.63	57	1	-2		17.9	Pass
363	1.62	57	1.52	53	-6	-7		16.7	Pass
364	1.59	56	1.59	55	0	-2		18.2	Pass
365	1.61	57	1.59	56	-1	-2		17.2	Pass
366	1.61	57	1.57	55	-2	-4		20.3	Pass
367	1.61	57	1.56	55	-3	-4		17.4	Pass
368	1.61	57	1.63	56	1	-2		20.7	Pass
369	1.61	57	1.62	55	1	-4		23.0	Pass
370	1.60	57	1.61	56	1	-2		22.5	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Lead Integrity Test / Terminal Strength

Fuse Type and Rating : 0678H 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-214

Fuse Part Number : 0678H9300-XX

Condition : Terminal Strength (Axial Pull test)

5Lbs force for 1minute

Unit	Initial DCR / V-Drop		After test		% change		Appearance inspection	Result
	mΩ	mV	mΩ	mV	R	V		
371	1.60	56	1.60	55	0	-2	No Defect	Pass
372	1.61	57	1.62	57	1	0	No Defect	Pass
373	1.56	55	1.55	53	-1	-4	No Defect	Pass
374	1.61	57	1.62	56	1	-2	No Defect	Pass
375	1.60	57	1.61	57	1	0	No Defect	Pass
376	1.59	56	1.57	55	-1	-2	No Defect	Pass
377	1.61	57	1.58	56	-2	-2	No Defect	Pass
378	1.60	57	1.63	56	2	-2	No Defect	Pass
379	1.61	57	1.62	56	1	-2	No Defect	Pass
380	1.61	58	1.61	56	0	-3	No Defect	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Lead Integrity Test / Terminal Strength

Fuse Type and Rating : 0678H 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-214

Fuse Part Number : 0678H9300-XX

Condition : Terminal Strength (Bending test)

Fuse mount on PCB,PCB bent by 1 mm at a rate 1mm/sec

Unit	Pre test DCR/V-drop		After test		% of change		Appearance inspection	Result
	mΩ	mV	mΩ	mV	R	V		
381	1.56	55	1.56	53	0	-4	No Defect	Pass
382	1.62	57	1.62	55	0	-4	No Defect	Pass
383	1.56	56	1.56	53	0	-5	No Defect	Pass
384	1.59	56	1.59	54	0	-4	No Defect	Pass
385	1.60	55	1.60	54	0	-2	No Defect	Pass
386	1.61	56	1.61	54	0	-4	No Defect	Pass
387	1.56	54	1.55	53	-1	-2	No Defect	Pass
388	1.62	56	1.61	55	-1	-2	No Defect	Pass
389	1.61	55	1.60	54	-1	-2	No Defect	Pass
390	1.57	55	1.56	53	-1	-4	No Defect	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Surge resistance cycle test

Fuse Type and Rating : 0678H 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-214

Fuse Part Number : 0678H9300-XX

Condition : QUAL-WORK-EE

1000 cycles rectangle wave,194A peak for 10ms duration, 10 seconds pulse interval

Unit	Pre test DCR/V-drop		After test		% change		Result
	mΩ	mV	mΩ	mV	R	V	
391	1.60	55	1.61	56	1	2	Pass
392	1.61	56	1.63	57	1	2	Pass
393	1.57	55	1.60	57	2	4	Pass
394	1.58	56	1.60	57	1	2	Pass
395	1.58	55	1.60	56	1	2	Pass
396	1.57	55	1.59	56	1	2	Pass
397	1.64	58	1.66	61	1	5	Pass
398	1.59	56	1.60	56	1	0	Pass
399	1.58	56	1.60	57	1	2	Pass
400	1.62	56	1.63	57	1	2	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



IR reflow soldering

Fuse Type and Rating : 0678H 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-214

Fuse Part Number : 0678H9300-XX

Condition : J-STD-020

Peak temperature 260°C for 30s max. with 3 cycles; 96SC Solder paste

Unit	Initial DCR / V-Drop		After test		% change		Appearance inspection	Result
	mΩ	mV	mΩ	mV	R	V		
11	1.64	58	1.63	57	-1	-2	No Defect	Pass
12	1.72	63	1.71	61	-1	-3	No Defect	Pass
13	1.62	58	1.62	56	0	-3	No Defect	Pass
14	1.74	63	1.72	62	-1	-2	No Defect	Pass
15	1.65	59	1.63	57	-1	-3	No Defect	Pass
16	1.70	62	1.67	59	-2	-5	No Defect	Pass
17	1.74	63	1.72	61	-1	-3	No Defect	Pass
18	1.66	59	1.65	57	-1	-3	No Defect	Pass
19	1.71	60	1.71	60	0	0	No Defect	Pass
20	1.65	60	1.63	58	-1	-3	No Defect	Pass
21	1.64	57	1.61	56	-2	-2	No Defect	Pass
22	1.64	60	1.63	58	-1	-3	No Defect	Pass
23	1.68	62	1.67	60	-1	-3	No Defect	Pass
24	1.72	61	1.70	60	-1	-2	No Defect	Pass
25	1.71	61	1.68	59	-2	-3	No Defect	Pass
26	1.66	59	1.65	57	-1	-3	No Defect	Pass
27	1.69	62	1.66	59	-2	-5	No Defect	Pass
28	1.71	60	1.70	60	-1	0	No Defect	Pass
29	1.66	59	1.66	57	0	-3	No Defect	Pass
30	1.70	61	1.68	59	-1	-3	No Defect	Pass
31	1.57	57	1.56	54	-1	-5	No Defect	Pass
32	1.61	56	1.59	55	-1	-2	No Defect	Pass
33	1.55	53	1.53	53	-1	0	No Defect	Pass
34	1.55	55	1.55	54	0	-2	No Defect	Pass
35	1.60	58	1.60	56	0	-3	No Defect	Pass
36	1.57	56	1.55	54	-1	-4	No Defect	Pass
37	1.60	57	1.57	55	-2	-4	No Defect	Pass
38	1.58	55	1.57	54	-1	-2	No Defect	Pass
39	1.63	60	1.62	57	-1	-5	No Defect	Pass
40	1.61	56	1.61	56	0	0	No Defect	Pass
41	1.56	56	1.56	54	0	-4	No Defect	Pass
42	1.63	58	1.61	56	-1	-3	No Defect	Pass
43	1.63	56	1.60	56	-2	0	No Defect	Pass
44	1.58	56	1.57	54	-1	-4	No Defect	Pass
45	1.64	57	1.60	56	-2	-2	No Defect	Pass
46	1.61	58	1.60	56	-1	-3	No Defect	Pass
47	1.55	56	1.54	54	-1	-4	No Defect	Pass
48	1.60	57	1.60	56	0	-2	No Defect	Pass
49	1.62	58	1.60	56	-1	-3	No Defect	Pass
50	1.65	59	1.63	57	-1	-3	No Defect	Pass
51	1.59	58	1.58	55	-1	-5	No Defect	Pass
52	1.54	53	1.53	53	-1	0	No Defect	Pass
53	1.56	56	1.54	54	-1	-4	No Defect	Pass
54	1.59	56	1.56	54	-2	-4	No Defect	Pass
55	1.58	57	1.57	54	-1	-5	No Defect	Pass
56	1.59	55	1.56	54	-2	-2	No Defect	Pass
57	1.59	55	1.58	55	-1	0	No Defect	Pass
58	1.54	55	1.54	54	0	-2	No Defect	Pass
59	1.61	55	1.59	55	-1	0	No Defect	Pass
60	1.59	56	1.58	55	-1	-2	No Defect	Pass
61	1.59	57	1.57	55	-1	-4	No Defect	Pass
62	1.61	57	1.59	55	-1	-4	No Defect	Pass
63	1.61	58	1.58	56	-2	-3	No Defect	Pass



IR reflow soldering

Fuse Type and Rating : 0678H 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-214

Fuse Part Number : 0678H9300-XX

Condition : J-STD-020

Peak temperature 260°C for 30s max. with 3 cycles; 96SC Solder paste

Unit	Initial DCR / V-Drop		After test		% change		Appearance inspection	Result
	mΩ	mV	mΩ	mV	R	V		
64	1.63	58	1.62	57	-1	-2	No Defect	Pass
65	1.57	57	1.56	54	-1	-5	No Defect	Pass
66	1.57	55	1.57	55	0	0	No Defect	Pass
67	1.57	57	1.58	55	1	-4	No Defect	Pass
68	1.58	56	1.56	54	-1	-4	No Defect	Pass
69	1.59	56	1.58	56	-1	0	No Defect	Pass
70	1.62	57	1.58	55	-2	-4	No Defect	Pass
71	1.58	56	1.57	55	-1	-2	No Defect	Pass
72	1.60	58	1.6	56	0	-3	No Defect	Pass
73	1.60	57	1.58	55	-1	-4	No Defect	Pass
74	1.57	55	1.56	54	-1	-2	No Defect	Pass
75	1.56	55	1.54	53	-1	-4	No Defect	Pass
76	1.57	56	1.56	54	-1	-4	No Defect	Pass
77	1.58	58	1.58	55	0	-5	No Defect	Pass
78	1.60	55	1.58	55	-1	0	No Defect	Pass
79	1.60	58	1.57	56	-2	-3	No Defect	Pass
80	1.64	60	1.63	58	-1	-3	No Defect	Pass
81	1.72	60	1.71	60	-1	0	No Defect	Pass
82	1.78	65	1.76	63	-1	-3	No Defect	Pass
83	1.64	59	1.61	57	-2	-3	No Defect	Pass
84	1.68	60	1.67	59	-1	-2	No Defect	Pass
85	1.73	61	1.7	60	-2	-2	No Defect	Pass
86	1.73	64	1.72	61	-1	-5	No Defect	Pass
87	1.67	60	1.67	60	0	0	No Defect	Pass
88	1.66	59	1.64	57	-1	-3	No Defect	Pass
89	1.69	62	1.68	60	-1	-3	No Defect	Pass
90	1.72	63	1.7	61	-1	-3	No Defect	Pass
91	1.61	58	1.59	56	-1	-3	No Defect	Pass
92	1.61	58	1.61	57	0	-2	No Defect	Pass
93	1.63	59	1.63	58	0	-2	No Defect	Pass
94	1.65	60	1.63	57	-1	-5	No Defect	Pass
95	1.63	57	1.6	57	-2	0	No Defect	Pass
96	1.66	60	1.65	58	-1	-3	No Defect	Pass
97	1.60	58	1.61	56	1	-3	No Defect	Pass
98	1.63	61	1.62	58	-1	-5	No Defect	Pass
99	1.65	60	1.64	57	-1	-5	No Defect	Pass
100	1.61	58	1.61	57	0	-2	No Defect	Pass
101	1.56	54	1.54	53	-1	-2	No Defect	Pass
102	1.56	53	1.54	53	-1	0	No Defect	Pass
103	1.67	61	1.66	59	-1	-3	No Defect	Pass
104	1.62	57	1.60	56	-1	-2	No Defect	Pass
105	1.58	57	1.57	55	-1	-4	No Defect	Pass
106	1.58	57	1.58	55	0	-4	No Defect	Pass
107	1.63	57	1.61	56	-1	-2	No Defect	Pass
108	1.60	57	1.57	55	-2	-4	No Defect	Pass
109	1.58	56	1.57	54	-1	-4	No Defect	Pass
110	1.63	59	1.60	56	-2	-5	No Defect	Pass
111	1.61	56	1.59	55	-1	-2	No Defect	Pass
112	1.62	55	1.59	55	-2	0	No Defect	Pass
113	1.59	55	1.58	54	-1	-2	No Defect	Pass
114	1.63	55	1.58	55	-3	0	No Defect	Pass
115	1.57	55	1.56	54	-1	-2	No Defect	Pass
116	1.55	56	1.55	54	0	-4	No Defect	Pass



IR reflow soldering

Fuse Type and Rating : 0678H 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-214

Fuse Part Number : 0678H9300-XX

Condition : J-STD-020

Peak temperature 260°C for 30s max. with 3 cycles; 96SC Solder paste

Unit	Initial DCR / V-Drop		After test		% change		Appearance inspection	Result
	mΩ	mV	mΩ	mV	R	V		
117	1.59	57	1.57	55	-1	-4	No Defect	Pass
118	1.58	57	1.57	55	-1	-4	No Defect	Pass
119	1.61	57	1.59	56	-1	-2	No Defect	Pass
120	1.58	57	1.56	54	-1	-5	No Defect	Pass
121	1.56	54	1.56	54	0	0	No Defect	Pass
122	1.56	56	1.56	54	0	-4	No Defect	Pass
123	1.56	56	1.54	54	-1	-4	No Defect	Pass
124	1.61	56	1.58	56	-2	0	No Defect	Pass
125	1.57	56	1.56	54	-1	-4	No Defect	Pass
126	1.56	54	1.52	53	-3	-2	No Defect	Pass
127	1.59	58	1.58	56	-1	-3	No Defect	Pass
128	1.53	55	1.52	53	-1	-4	No Defect	Pass
129	1.57	56	1.57	54	0	-4	No Defect	Pass
130	1.58	56	1.56	55	-1	-2	No Defect	Pass
131	1.64	59	1.62	57	-1	-3	No Defect	Pass
132	1.64	60	1.61	57	-2	-5	No Defect	Pass
133	1.66	60	1.64	58	-1	-3	No Defect	Pass
134	1.63	59	1.62	57	-1	-3	No Defect	Pass
135	1.61	57	1.61	57	0	0	No Defect	Pass
136	1.64	59	1.62	57	-1	-3	No Defect	Pass
137	1.64	57	1.61	56	-2	-2	No Defect	Pass
138	1.59	58	1.58	56	-1	-3	No Defect	Pass
139	1.67	58	1.62	56	-3	-3	No Defect	Pass
140	1.64	58	1.62	57	-1	-2	No Defect	Pass
141	1.66	59	1.63	57	-2	-3	No Defect	Pass
142	1.62	58	1.61	56	-1	-3	No Defect	Pass
143	1.67	60	1.64	57	-2	-5	No Defect	Pass
144	1.60	56	1.59	56	-1	0	No Defect	Pass
145	1.61	58	1.61	56	0	-3	No Defect	Pass
146	1.61	57	1.59	55	-1	-4	No Defect	Pass
147	1.69	61	1.64	58	-3	-5	No Defect	Pass
148	1.59	56	1.57	55	-1	-2	No Defect	Pass
149	1.71	59	1.69	59	-1	0	No Defect	Pass
150	1.62	58	1.62	57	0	-2	No Defect	Pass
151	1.58	57	1.58	55	0	-4	No Defect	Pass
152	1.63	59	1.61	57	-1	-3	No Defect	Pass
153	1.65	59	1.62	57	-2	-3	No Defect	Pass
154	1.64	58	1.63	57	-1	-2	No Defect	Pass
155	1.63	60	1.62	57	-1	-5	No Defect	Pass
156	1.70	59	1.69	59	-1	0	No Defect	Pass
157	1.67	60	1.66	58	-1	-3	No Defect	Pass
158	1.63	59	1.63	57	0	-3	No Defect	Pass
159	1.60	55	1.58	55	-1	0	No Defect	Pass
160	1.68	59	1.66	57	-1	-3	No Defect	Pass
161	1.64	58	1.63	57	-1	-2	No Defect	Pass
162	1.68	60	1.63	58	-3	-3	No Defect	Pass
163	1.69	61	1.68	59	-1	-3	No Defect	Pass
164	1.63	58	1.63	57	0	-2	No Defect	Pass
165	1.58	57	1.56	55	-1	-4	No Defect	Pass
166	1.67	59	1.64	57	-2	-3	No Defect	Pass
167	1.66	61	1.65	58	-1	-5	No Defect	Pass
168	1.65	58	1.64	58	-1	0	No Defect	Pass
169	1.63	58	1.61	56	-1	-3	No Defect	Pass



IR reflow soldering

Fuse Type and Rating : 0678H 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-214

Fuse Part Number : 0678H9300-XX

Condition : J-STD-020

Peak temperature 260°C for 30s max. with 3 cycles; 96SC Solder paste

Unit	Initial DCR / V-Drop		After test		% change		Appearance inspection	Result
	mΩ	mV	mΩ	mV	R	V		
170	1.59	57	1.56	55	-2	-4	No Defect	Pass
171	1.69	62	1.68	59	-1	-5	No Defect	Pass
172	1.69	59	1.66	58	-2	-2	No Defect	Pass
173	1.61	56	1.60	56	-1	0	No Defect	Pass
174	1.57	56	1.57	55	0	-2	No Defect	Pass
175	1.11	59	1.09	59	-2	0	No Defect	Pass
176	1.08	60	1.07	59	-1	-2	No Defect	Pass
177	1.66	59	1.64	57	-1	-3	No Defect	Pass
178	1.70	61	1.68	59	-1	-3	No Defect	Pass
179	1.65	59	1.65	57	0	-3	No Defect	Pass
180	1.64	58	1.64	57	0	-2	No Defect	Pass
181	1.62	60	1.60	57	-1	-5	No Defect	Pass
182	1.64	56	1.60	56	-2	0	No Defect	Pass
183	1.62	59	1.61	57	-1	-3	No Defect	Pass
184	1.60	57	1.59	55	-1	-4	No Defect	Pass
185	1.59	55	1.59	55	0	0	No Defect	Pass
186	1.60	58	1.59	56	-1	-3	No Defect	Pass
187	1.62	60	1.62	59	0	-2	No Defect	Pass
188	1.64	59	1.62	57	-1	-3	No Defect	Pass
189	1.64	59	1.62	57	-1	-3	No Defect	Pass
190	1.61	58	1.60	57	-1	-2	No Defect	Pass
191	1.62	59	1.60	57	-1	-3	No Defect	Pass
192	1.61	58	1.60	56	-1	-3	No Defect	Pass
193	1.60	60	1.60	57	0	-5	No Defect	Pass
194	1.62	57	1.60	57	-1	0	No Defect	Pass
195	1.62	57	1.59	55	-2	-4	No Defect	Pass
196	1.61	60	1.60	58	-1	-3	No Defect	Pass
197	1.62	57	1.61	57	-1	0	No Defect	Pass
198	1.62	58	1.60	56	-1	-3	No Defect	Pass
199	1.62	58	1.59	56	-2	-3	No Defect	Pass
200	1.63	59	1.62	58	-1	-2	No Defect	Pass
201	1.68	59	1.65	58	-2	-2	No Defect	Pass
202	1.72	64	1.71	61	-1	-5	No Defect	Pass
203	1.69	60	1.69	60	0	0	No Defect	Pass
204	1.64	58	1.62	56	-1	-3	No Defect	Pass
205	1.67	60	1.66	58	-1	-3	No Defect	Pass
206	1.63	59	1.61	57	-1	-3	No Defect	Pass
207	1.68	60	1.66	58	-1	-3	No Defect	Pass
208	1.64	58	1.64	57	0	-2	No Defect	Pass
209	1.63	58	1.63	57	0	-2	No Defect	Pass
210	1.69	62	1.67	59	-1	-5	No Defect	Pass
211	1.66	57	1.63	57	-2	0	No Defect	Pass
212	1.73	64	1.72	62	-1	-3	No Defect	Pass
213	1.66	60	1.65	58	-1	-3	No Defect	Pass
214	1.65	60	1.64	57	-1	-5	No Defect	Pass
215	1.63	60	1.62	57	-1	-5	No Defect	Pass
216	1.70	61	1.70	60	0	-2	No Defect	Pass
217	1.74	62	1.72	61	-1	-2	No Defect	Pass
218	1.73	61	1.71	61	-1	0	No Defect	Pass
219	1.68	61	1.67	59	-1	-3	No Defect	Pass
220	1.67	59	1.65	58	-1	-2	No Defect	Pass
221	1.69	61	1.68	59	-1	-3	No Defect	Pass
222	1.61	58	1.61	56	0	-3	No Defect	Pass



IR reflow soldering

Fuse Type and Rating : 0678H 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-214

Fuse Part Number : 0678H9300-XX

Condition : J-STD-020

Peak temperature 260°C for 30s max. with 3 cycles; 96SC Solder paste

Unit	Initial DCR / V-Drop		After test		% change		Appearance inspection	Result
	mΩ	mV	mΩ	mV	R	V		
223	1.71	61	1.69	60	-1	-2	No Defect	Pass
224	1.63	58	1.60	56	-2	-3	No Defect	Pass
225	1.68	61	1.67	59	-1	-3	No Defect	Pass
226	1.69	63	1.68	60	-1	-5	No Defect	Pass
227	1.64	58	1.62	57	-1	-2	No Defect	Pass
228	1.67	57	1.64	57	-2	0	No Defect	Pass
229	1.68	59	1.67	58	-1	-2	No Defect	Pass
230	1.71	60	1.68	60	-2	0	No Defect	Pass
231	1.54	54	1.53	53	-1	-2	No Defect	Pass
232	1.55	56	1.55	54	0	-4	No Defect	Pass
233	1.56	55	1.54	54	-1	-2	No Defect	Pass
234	1.62	57	1.58	55	-2	-4	No Defect	Pass
235	1.56	57	1.54	54	-1	-5	No Defect	Pass
236	1.59	56	1.57	54	-1	-4	No Defect	Pass
237	1.58	57	1.58	55	0	-4	No Defect	Pass
238	1.57	55	1.57	55	0	0	No Defect	Pass
239	1.57	56	1.55	54	-1	-4	No Defect	Pass
240	1.59	55	1.56	54	-2	-2	No Defect	Pass
241	1.57	57	1.56	55	-1	-4	No Defect	Pass
242	1.61	59	1.60	57	-1	-3	No Defect	Pass
243	1.54	54	1.53	53	-1	-2	No Defect	Pass
244	1.55	55	1.54	53	-1	-4	No Defect	Pass
245	1.53	56	1.53	54	0	-4	No Defect	Pass
246	1.59	58	1.57	55	-1	-5	No Defect	Pass
247	1.58	55	1.56	55	-1	0	No Defect	Pass
248	1.59	57	1.58	55	-1	-4	No Defect	Pass
249	1.60	57	1.58	55	-1	-4	No Defect	Pass
250	1.54	56	1.53	53	-1	-5	No Defect	Pass
251	1.64	58	1.64	57	0	-2	No Defect	Pass
252	1.66	58	1.64	58	-1	0	No Defect	Pass
253	1.66	59	1.63	58	-2	-2	No Defect	Pass
254	1.69	62	1.68	60	-1	-3	No Defect	Pass
255	1.65	60	1.64	58	-1	-3	No Defect	Pass
256	1.67	61	1.65	59	-1	-3	No Defect	Pass
257	1.62	57	1.59	56	-2	-2	No Defect	Pass
258	1.65	61	1.64	58	-1	-5	No Defect	Pass
259	1.66	58	1.63	58	-2	0	No Defect	Pass
260	1.66	61	1.65	59	-1	-3	No Defect	Pass
261	1.63	61	1.63	59	0	-3	No Defect	Pass
262	1.65	58	1.63	58	-1	0	No Defect	Pass
263	1.64	61	1.63	59	-1	-3	No Defect	Pass
264	1.65	58	1.63	57	-1	-2	No Defect	Pass
265	1.60	59	1.63	57	2	-3	No Defect	Pass
266	1.63	60	1.63	58	0	-3	No Defect	Pass
267	1.63	59	1.63	58	0	-2	No Defect	Pass
268	1.65	59	1.63	57	-1	-3	No Defect	Pass
269	1.66	58	1.63	56	-2	-3	No Defect	Pass
270	1.64	61	1.63	58	-1	-5	No Defect	Pass
271	1.60	56	1.59	56	-1	0	No Defect	Pass
272	1.60	58	1.59	56	-1	-3	No Defect	Pass
273	1.63	58	1.62	56	-1	-3	No Defect	Pass
274	1.60	58	1.60	55	0	-5	No Defect	Pass
275	1.60	57	1.58	56	-1	-2	No Defect	Pass



IR reflow soldering

Fuse Type and Rating : 0678H 30A

Production Lot Number : ENG'samples (5% Sn plating element)

Project Number : FPQ-214

Fuse Part Number : 0678H9300-XX

Condition : J-STD-020

Peak temperature 260°C for 30s max. with 3 cycles; 96SC Solder paste

Unit	Initial DCR / V-Drop		After test		% change		Appearance inspection	Result
	mΩ	mV	mΩ	mV	R	V		
276	1.60	56	1.58	56	-1	0	No Defect	Pass
277	1.59	56	1.58	55	-1	-2	No Defect	Pass
278	1.63	56	1.58	56	-3	0	No Defect	Pass
279	1.58	56	1.57	55	-1	-2	No Defect	Pass
280	1.58	57	1.58	55	0	-4	No Defect	Pass
301	1.64	58	1.62	56	-1	-3	No Defect	Pass
302	1.65	59	1.62	57	-2	-3	No Defect	Pass
303	1.63	58	1.62	57	-1	-2	No Defect	Pass
304	1.65	59	1.62	56	-2	-5	No Defect	Pass
305	1.64	56	1.62	56	-1	0	No Defect	Pass
306	1.65	60	1.62	58	-2	-3	No Defect	Pass
307	1.63	59	1.62	57	-1	-3	No Defect	Pass
308	1.65	57	1.62	57	-2	0	No Defect	Pass
309	1.63	59	1.62	57	-1	-3	No Defect	Pass
310	1.62	59	1.62	57	0	-3	No Defect	Pass
311	1.62	58	1.60	56	-1	-3	No Defect	Pass
312	1.60	58	1.60	56	0	-3	No Defect	Pass
313	1.63	58	1.61	57	-1	-2	No Defect	Pass
314	1.61	58	1.59	56	-1	-3	No Defect	Pass
315	1.59	58	1.59	56	0	-3	No Defect	Pass
316	1.59	59	1.59	56	0	-5	No Defect	Pass
317	1.61	57	1.59	57	-1	0	No Defect	Pass
318	1.64	59	1.61	57	-2	-3	No Defect	Pass
319	1.62	59	1.61	57	-1	-3	No Defect	Pass
320	1.63	56	1.60	56	-2	0	No Defect	Pass
381	1.57	57	1.56	55	-1	-4	No Defect	Pass
382	1.63	59	1.62	57	-1	-3	No Defect	Pass
383	1.56	57	1.56	56	0	-2	No Defect	Pass
384	1.61	57	1.59	56	-1	-2	No Defect	Pass
385	1.65	58	1.60	55	-3	-5	No Defect	Pass
386	1.62	56	1.61	56	-1	0	No Defect	Pass
387	1.58	56	1.56	54	-1	-4	No Defect	Pass
388	1.63	58	1.62	56	-1	-3	No Defect	Pass
389	1.61	57	1.61	55	0	-4	No Defect	Pass
390	1.59	57	1.57	55	-1	-4	No Defect	Pass
391	1.59	57	1.60	55	1	-4	No Defect	Pass
392	1.62	59	1.61	56	-1	-5	No Defect	Pass
393	1.58	58	1.57	55	-1	-5	No Defect	Pass
394	1.63	56	1.58	56	-3	0	No Defect	Pass
395	1.61	57	1.58	55	-2	-4	No Defect	Pass
396	1.58	57	1.57	55	-1	-4	No Defect	Pass
397	1.67	61	1.64	58	-2	-5	No Defect	Pass
398	1.60	59	1.59	56	-1	-5	No Defect	Pass
399	1.58	57	1.58	56	0	-2	No Defect	Pass
400	1.64	58	1.62	56	-1	-3	No Defect	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Fuse Qualification Summary Report - 0683G Fuse series

Fuse Type and Rating : 0683G 30A

Production Lot Number : ENG' samples (10% Sn plating element)

Project Number : FPQ-189

Fuse Part Number : 0683G9300-XX

Reference	Test Description	Testing Condition	Acceptance Criteria	Result
QUAL-WORK-EE	DC Resistance	< 10 % testing current	0.0019Ω ± 25%	390 / 390 pass
QUAL-WORK-EE	Voltage drop	100 % testing current until V-drop value constant	Max. 0.10 V	390 / 390 pass
QUAL-WORK-EE	Visual inspection	naked by eyes / microscope	no appearance defect	390 / 390 pass
QUAL-WORK-EE	Mechanical dimension	Projector / digital caliper	within product specification	10 / 10 pass
MIL-STD-202G, Method 107 Condition B	Thermal Shock test	15 min. for extremum , 5 cycles, -65 °Cto +125 °C	no appearance defect and shall pass the end points tests	40 / 40 pass
QUAL-WORK-EE	Biased Humidity test	1000 hrs, 85°C 85% RH, 10% testing current	no appearance defect and shall pass the end points tests	50 / 50 pass
QUAL-WORK-EE	Biased Life test	1000 hrs, 70°C, 70% testing current	no appearance defect and shall pass the end points tests	50 / 50 pass
IEC60127-1 9.5	Maximum sustained dissipation	measured at 100 % testing current, 1 hr	≦ 3.0 W	10 / 10 pass
QUAL-WORK-EE	Steady life test	100% testing current, 100 hrs, 25 ± 5 °C	< 10 % variation on DCR & V-drop	10 / 10 pass
IEC 60127-7 9.7 test method B	Fuse link temperature rise test	apply 100% testing current temperature constant	≦ 100 °C	10 / 10 pass
IEC 60127-7 9.3	Breaking capacity test	100A, 350V _{AC} , power factor = 1	no cracking and deformation on fuse body	30 / 30 pass
IEC 60127-7 9.3	Breaking capacity test	500A, 250V _{AC} , power factor = 1	no cracking and deformation on fuse body	
IEC 60127-7 9.3	Breaking capacity test	2000A, 125V _{DC} , power factor = 1	no cracking and deformation on fuse body	
MIL-STD-202G, Method 302, Condition B	Insulation resistance	100 ± 10 V _{DC} test potential, after Breaking Capacity test	≧ 0.01MΩ	
IEC 60127-1 9.2.2	Test at elevated temperature	70 ± 2 °C, 1 hr, 100 % testing current	< 10 % variation on DCR & V-drop	10 / 10 pass
IEC 60127-1 9.2	Time current characteristics	100 % testing current	min. 4 Hr. ; max. N/A	10 / 10 pass
IEC 60127-1 9.2	Time current characteristics	210 % testing current	min. N/A ; max. 120 sec	10 / 10 pass
IEC 60127-1 9.2	Time current characteristics	1000 % testing current	min. 10 ms ; max. 100 ms	10 / 10 pass
MIL-STD-202 Method 106,Condition E	Moisture resistance test	10 cycles, 24 hrs, 25 °C to 65 °C then 10°C, 90 - 95 % RH	no appearance defect and shall pass the end points tests	20 / 20 pass
MIL-STD-202 Method 101,Condition B	Salt spray test	Saturated salt spray at 35 °C for 48 hrs	no appearance defect and shall pass the end points tests	20 / 20 pass
MIL-STD-202 Method 213,Condition I	Mechanical shock test	100 G's peak for 6 ms, sawtooth waveform	no appearance defect and shall pass the end points tests	20 / 20 pass
MIL-STD-202 Method 201,Condition A	Vibration test	10 - 55 Hz, 0.06 inch total excursion, 2 hrs in each of 3 directions, after Mechanical shock test.	no appearance defect and shall pass the end points tests	
J-STD-002	Solderability test, no aging	immerse to flux 5 ± 1 sec then dip in solder bath 245 ± 5 °C, 5 ± 0.5 sec	solder coverage > 95 % of the termination surface	10 / 10 pass
J-STD-002	Solderability test, dry aging, 155 °C, 16 hrs	immerse to flux 5 ± 1 sec then dip in solder bath 245 ± 5 °C, 5 ± 0.5 sec	solder coverage > 95 % of the termination surface	10 / 10 pass
J-STD-002	Solderability test, steam aging, 8 hrs	immerse to flux 5 ± 1 sec then dip in solder bath 245 ± 5 °C, 5 ± 0.5 sec	solder coverage > 95 % of the termination surface	10 / 10 pass
MIL-STD-202 Method 210	Resistance to soldering heat test	Dip solder bath 260 ± 5 °C, 10 ± 1 sec	< 10 % variation on DCR & V-drop	30 / 30 pass
IEC60068-2-21	Terminal Strength	fuse mount on PCB, PCB bent by 1 mm at a rate 1 mm/sec	termination remains firmly attached, <10 % variation on DCR & V-drop	10 / 10 pass
QUAL-WORK-EE	Surge resistance cycle test	1000 cycles rectangle wave, 195A peak for 10ms duration, 10 sec pulse interval.	< 10 % variation on DCR & V-drop	10 / 10 pass
J-STD-020	IR reflow soldering	Peak temperature 260°C for 30s max. with 3 cycles; 96SC Solder paste	< 10% variation on DCR & V-drop, No appearance defect	300 / 300 pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026

Approved By: Simon Chiu



Mechanical Dimension

Fuse Type and Rating : 0683G 30A

Production Lot Number : ENG' samples (10% Sn plating element)

Project Number : FPQ-189

Fuse Part Number : 0683G9300-XX

Condition : Projector / digital caliper

Unit	Initial DCR/V-drop		Length	Width	Result
	mΩ	mV	11.5-12.5 mm	4.45-4.85 mm	
1	2.02	73	11.74	4.63	Pass
2	2.01	72	11.71	4.54	Pass
3	2.01	72	11.76	4.56	Pass
4	1.98	71	11.72	4.62	Pass
5	1.98	70	11.68	4.59	Pass
6	1.97	70	11.75	4.59	Pass
7	2.01	73	11.76	4.56	Pass
8	2.01	72	11.76	4.55	Pass
9	1.98	70	11.77	4.60	Pass
10	2.00	71	11.78	4.55	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Thermal Shock Test

Fuse Type and Rating : 0683G 30A

Production Lot Number : ENG' samples (10% Sn plating element)

Project Number : FPQ-189

Fuse Part Number : 0683G9300-XX

Condition : MIL-STD-202G, Method 107 Condition B

15 min. for extremum , 5 cycles, -65 °Cto +125 °C

Unit	Pre test DCR/V-drop		After test		% of change		100% rated current Min:4 Hr.	Appearance Inspection	Result
	mΩ	mV	mΩ	mV	R	V			
11	1.97	70	1.96	71	-1	1	>4	No Appearance defect	Pass
12	1.98	71	1.97	71	-1	0	>4		Pass
13	2.01	74	2.02	72	0	-3	>4		Pass
14	1.92	70	1.91	71	-1	1	>4		Pass
15	1.99	72	1.98	71	-1	-1	>4		Pass
16	2.01	72	2.03	74	1	3	>4		Pass
17	1.98	70	1.97	69	-1	-1	>4		Pass
18	2.01	76	2.01	75	0	-1	>4		Pass
19	1.89	69	1.90	68	1	-1	>4		Pass
20	2.00	72	1.99	71	-1	-1	>4		Pass
21	1.95	74	1.95	73	0	-1	>4		Pass
22	1.98	74	1.97	72	-1	-3	>4		Pass
23	1.96	72	1.95	71	-1	-1	>4		Pass
24	2.00	72	1.98	71	-1	-1	>4		Pass
25	1.98	70	2.01	73	2	4	>4		Pass
26	2.01	73	2.00	71	0	-3	>4		Pass
27	2.01	72	2.00	72	0	0	>4		Pass
28	1.87	69	1.87	68	0	-1	>4		Pass
29	1.99	72	2.02	73	2	1	>4		Pass
30	1.95	70	1.93	69	-1	-1	>4		Pass
Unit	Pre test DCR/V-drop		After test		% of change		210% rated current Max: 120s	Appearance Inspection	Result
	mΩ	mV	mΩ	mV	R	V			
31	1.99	74	1.97	72	-1	-3	2.93	No Appearance defect	Pass
32	1.99	71	1.96	70	-2	-1	2.99		Pass
33	2.00	72	1.99	71	-1	-1	2.71		Pass
34	1.97	70	1.95	72	-1	3	1.74		Pass
35	2.00	72	1.97	71	-2	-1	1.97		Pass
36	1.98	71	1.99	70	1	-1	2.58		Pass
37	1.96	72	1.95	71	-1	-1	3.06		Pass
38	1.96	70	1.98	70	1	0	3.00		Pass
39	2.01	73	2.02	72	0	-1	2.91		Pass
40	1.97	70	1.95	70	-1	0	1.96		Pass
41	2.01	73	2.00	71	0	-3	1.85		Pass
42	1.98	71	1.98	70	0	-1	2.82		Pass
43	2.01	73	2.01	73	0	0	2.53		Pass
44	1.99	74	1.96	72	-2	-3	2.83		Pass
45	2.01	73	1.98	71	-1	-3	2.75		Pass
46	1.90	70	1.92	70	1	0	2.70		Pass
47	1.98	73	2.02	76	2	4	2.18		Pass
48	2.00	71	1.97	70	-2	-1	2.99		Pass
49	1.94	69	1.91	67	-2	-3	2.79		Pass
50	2.01	72	1.99	70	-1	-3	1.94		Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Biased Humidity Test

Fuse Type and Rating : 0683G 30A

Production Lot Number : ENG' samples (10% Sn plating element)

Project Number : FPQ-189

Fuse Part Number : 0683G9300-XX

Condition : QUAL-WORK-EE

1000 hrs, 85°C 85% RH, 10% testing current

Unit	Pre test DCR/V-drop		After test		% of change		100% rated current	Appearance Inspection	Result
	mΩ	mV	mΩ	mV	R	V	Min:4 Hr.		
51	1.98	70	2.05	74	4	6	>4	No Appearance defect	Pass
52	1.98	71	2.06	72	4	1	>4		Pass
53	1.99	72	2.08	76	5	6	>4		Pass
54	1.99	70	2.07	73	4	4	>4		Pass
55	1.96	69	1.90	70	-3	1	>4		Pass
56	1.97	70	2.00	71	2	1	>4		Pass
57	2.01	71	2.01	71	0	0	>4		Pass
58	1.97	69	1.90	67	-4	-3	>4		Pass
59	2.01	71	2.05	73	2	3	>4		Pass
60	1.98	69	1.90	70	-4	1	>4		Pass
61	1.98	69	2.00	66	1	-4	>4		Pass
62	1.96	69	1.97	66	1	-4	>4		Pass
63	1.95	69	1.90	66	-3	-4	>4		Pass
64	2.01	72	2.10	78	4	8	>4		Pass
65	2.00	71	2.04	76	2	7	>4		Pass
66	1.99	70	2.07	75	4	7	>4		Pass
67	1.99	71	1.97	69	-1	-3	>4		Pass
68	1.93	72	2.00	72	4	0	>4		Pass
69	2.01	71	2.01	75	0	6	>4		Pass
70	2.00	71	1.96	69	-2	-3	>4		Pass

Unit	Pre test DCR/V-drop		After test		% of change		210% rated current	Appearance Inspection	Result
	mΩ	mV	mΩ	mV	R	V	Max: 120s		
71	2.01	69	2.05	72	2	4	1.84	No Appearance defect	Pass
72	1.96	71	1.98	73	1	3	2.75		Pass
73	2.00	71	1.99	70	-1	-1	3.01		Pass
74	1.99	70	2.02	73	2	4	2.91		Pass
75	1.99	70	1.98	70	-1	0	2.58		Pass
76	1.91	68	1.97	69	3	1	2.55		Pass
77	2.00	72	1.99	70	-1	-3	2.56		Pass
78	1.98	70	1.99	71	1	1	2.55		Pass
79	1.99	72	2.00	74	1	3	2.59		Pass
80	2.01	68	2.08	72	3	6	2.66		Pass
81	1.91	69	2.01	71	5	3	2.35		Pass
82	1.94	68	1.99	70	3	3	2.82		Pass
83	1.97	69	1.99	71	1	3	3.10		Pass
84	1.99	73	2.00	75	1	3	2.66		Pass
85	1.92	67	2.00	72	4	7	1.89		Pass
86	2.00	70	1.99	71	-1	1	3.05		Pass
87	1.99	73	2.01	72	1	-1	2.87		Pass
88	2.01	70	2.01	71	0	1	2.88		Pass
89	1.91	70	1.99	70	4	0	2.95		Pass
90	2.01	71	1.95	69	-3	-3	3.06		Pass
91	1.97	69	1.99	69	1	0	3.05		Pass
92	2.00	70	2.02	73	1	4	2.09		Pass
93	1.99	72	1.98	70	-1	-3	2.95		Pass
94	1.97	70	1.97	69	0	-1	3.08		Pass
95	1.98	70	1.99	70	1	0	2.97		Pass
96	1.97	72	1.99	74	1	3	2.95		Pass
97	1.97	70	1.99	70	1	0	2.94		Pass
98	1.98	68	1.99	71	1	4	2.96		Pass
99	1.95	68	2.01	72	3	6	2.98		Pass
100	2.00	70	2.01	71	0	1	3.07		Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Biased Life test

Fuse Type and Rating : 0683G 30A

Production Lot Number : ENG' samples (10% Sn plating element)

Project Number : FPQ-189

Fuse Part Number : 0683G9300-XX

Condition : QUAL-WORK-EE

1000 hrs, 70°C, 70% testing current

Unit	Pre test DCR/V-drop		After test		% of change		100% rated current	Appearance Inspection	Result
	mΩ	mV	mΩ	mV	R	V	Min:4 Hr.		
101	1.99	71	1.99	71	0	0	>4	No Appearance defect	Pass
102	1.95	69	2.00	70	3	1	>4		Pass
103	1.98	69	2.01	71	2	3	>4		Pass
104	1.98	70	2.00	71	1	1	>4		Pass
105	2.01	71	1.97	69	-2	-3	>4		Pass
106	1.97	70	1.96	68	-1	-3	>4		Pass
107	1.99	70	1.96	69	-2	-1	>4		Pass
108	1.95	69	1.97	69	1	0	>4		Pass
109	1.97	70	1.98	73	1	4	>4		Pass
110	1.98	70	2.01	71	2	1	>4		Pass
111	2.00	72	1.96	69	-2	-4	>4		Pass
112	1.95	69	1.97	69	1	0	>4		Pass
113	1.92	67	1.99	71	4	6	>4		Pass
114	1.91	70	1.97	69	3	-1	>4		Pass
115	1.96	69	1.95	69	-1	0	>4		Pass
116	1.94	69	1.97	69	2	0	>4		Pass
117	1.90	68	1.90	67	0	-1	>4		Pass
118	1.98	73	1.96	70	-1	-4	>4		Pass
119	2.00	71	2.01	73	0	3	>4		Pass
120	1.97	70	2.0	70	1	0	>4		Pass

Unit	Pre test DCR/V-drop		After test		% of change		210% rated current	Appearance Inspection	Result
	mΩ	mV	mΩ	mV	R	V	Max: 120s		
121	2.00	72	1.98	70	-1	-3	2.47	No Appearance defect	Pass
122	1.96	70	1.99	71	2	1	2.30		Pass
123	2.00	73	1.98	69	-1	-5	2.67		Pass
124	1.91	69	1.98	71	4	3	2.33		Pass
125	2.01	71	2.01	71	0	0	3.02		Pass
126	1.94	69	2.00	73	3	6	2.26		Pass
127	1.98	71	1.97	70	-1	-1	2.70		Pass
128	2.00	71	1.93	69	-4	-3	3.38		Pass
129	2.00	71	1.98	69	-1	-3	2.29		Pass
130	2.01	71	1.90	67	-5	-6	4.11		Pass
131	1.90	67	1.94	71	2	6	3.33		Pass
132	1.89	76	1.99	77	5	1	2.52		Pass
133	1.98	69	2.00	73	1	6	2.27		Pass
134	1.92	71	1.97	70	3	-1	2.69		Pass
135	1.96	70	1.96	69	0	-1	2.70		Pass
136	1.98	71	1.98	73	0	3	2.20		Pass
137	1.99	72	2.01	74	1	3	2.22		Pass
138	1.91	69	1.99	73	4	6	2.11		Pass
139	1.95	69	1.93	69	-1	0	3.19		Pass
140	1.97	72	2.01	73	2	1	1.88		Pass
141	1.99	71	2.00	74	1	4	2.30		Pass
142	1.95	69	1.94	68	-1	-1	3.32		Pass
143	1.97	70	1.96	68	-1	-3	3.52		Pass
144	2.00	72	1.95	70	-3	-3	2.69		Pass
145	1.98	69	2.01	72	2	4	2.36		Pass
146	1.99	73	1.93	68	-3	-7	2.35		Pass
147	1.99	72	1.95	70	-2	-3	2.64		Pass
148	2.00	70	2.00	73	0	4	3.59		Pass
149	1.98	71	2.01	73	2	3	1.94		Pass
150	2.01	73	1.98	70	-1	-4	2.25		Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Maximum sustained dissipation

Fuse Type and Rating : 0683G 30A

Production Lot Number : ENG' samples (10% Sn plating element)

Project Number : FPQ-189

Fuse Part Number : 0683G9300-XX

Condition : IEC60127-1 9.5 Maximum sustained dissipation
measured at 100 % testing current, 1 hr

Unit	Pre test DCR/V-drop		D.C. V-drop after 1hr (V)	M.S.D (<3 W)	Result
	mΩ	mV			
151	2.01	72	0.096	2.88	Pass
152	2.02	72	0.096	2.88	Pass
153	1.99	71	0.096	2.88	Pass
154	1.97	70	0.098	2.94	Pass
155	1.98	70	0.097	2.91	Pass
156	2.00	72	0.097	2.91	Pass
157	2.01	71	0.096	2.88	Pass
158	2.02	72	0.099	2.97	Pass
159	1.96	70	0.096	2.88	Pass
160	1.97	70	0.098	2.94	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Steady Life Test

Fuse Type and Rating : 0683G 30A

Production Lot Number : ENG' samples (10% Sn plating element)

Project Number : FPQ-189

Fuse Part Number : 0683G9300-XX

Condition : QUAL-WORK-EE

100% testing current, 100 hrs, 25 ± 5 °C

Unit	Pre test DCR/V-drop		After test		% change		Result
	mΩ	mV	mΩ	mV	R	V	
161	2.00	71	2.07	74	3	4	Pass
162	2.02	72	2.08	75	3	4	Pass
163	1.98	72	2.04	74	3	3	Pass
164	1.97	71	2.07	74	5	4	Pass
165	2.01	72	2.09	74	4	3	Pass
166	1.96	73	2.06	76	5	4	Pass
167	2.02	73	2.04	75	1	3	Pass
168	1.93	69	2.03	74	5	7	Pass
169	1.96	72	2.03	75	4	4	Pass
170	2.01	73	2.09	74	4	1	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Temperature Rise Test

Fuse Type and Rating : 0683G 30A

Production Lot Number : ENG' samples (10% Sn plating element)

Project Number : FPQ-189

Fuse Part Number : 0683G9300-XX

Condition : IEC 60127-7 9.7 test method B

apply 100% testing current temperature constant

Ambient temperature: 25°C

Unit	Pre test DCR/V-drop		15 min	30 min	45 min	60 min	Result
	mΩ	mV	°C	°C	°C	°C	
171	2.01	73	68	69	69	69	Pass
172	2.03	73	65	67	66	67	Pass
173	2.05	72	70	71	72	71	Pass
174	2.02	71	72	73	72	73	Pass
175	2.03	71	68	68	69	70	Pass
176	2.02	73	65	66	67	67	Pass
177	1.98	71	65	67	67	66	Pass
178	2.01	73	64	66	66	65	Pass
179	2.01	71	69	70	70	71	Pass
180	2.04	72	70	71	71	71	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Breaking Capacity Test & Insulation Resistance

Fuse Type and Rating : 0683G 30A

Production Lot Number : ENG' samples (10% Sn plating element)

Project Number : FPQ-189

Fuse Part Number : 0683G9300-XX

Condition : IEC 60127-7 9.3

Breaking capacity test

100A, 350V AC , power factor = 1

500A, 250V AC , power factor = 1

2000A, 125V DC , power factor = 1

MIL-STD-202G, Method 302,
Condition A

Insulation resistance

100 ± 10 VDC test potential, after Breaking Capacity test

Test Conditon: 100A, 350VAC						
Unit	Pre test DCR/V-drop		Power Factor	Breaking Capacity	IR (100V)	Result
	mΩ	mV		Appearance Inspection	GΩ	
181	1.92	70	1	No defect	38.9	Pass
182	1.99	71	1	No defect	4.6	Pass
183	1.95	69	1	No defect	2.9	Pass
184	1.98	70	1	No defect	5.3	Pass
185	1.91	70	1	No defect	23.4	Pass
186	1.93	68	1	No defect	28.6	Pass
187	1.90	69	1	No defect	21.8	Pass
188	1.97	70	1	No defect	9.7	Pass
189	1.97	69	1	No defect	5.3	Pass
190	1.97	70	1	No defect	25.8	Pass

Test Conditon: 500A, 250VAC						
Unit	Pre test DCR/V-drop		Power Factor	Breaking Capacity	IR (100V)	Result
	mΩ	mV		Appearance Inspection	GΩ	
191	1.95	68	1	No defect	10.2	Pass
192	1.97	67	1	No defect	23.4	Pass
193	1.99	71	1	No defect	7.5	Pass
194	1.99	70	1	No defect	10.6	Pass
195	1.97	69	1	No defect	8.4	Pass
196	1.96	69	1	No defect	20.1	Pass
197	1.93	68	1	No defect	16.9	Pass
198	1.97	70	1	No defect	13.2	Pass
199	1.95	66	1	No defect	12.5	Pass
200	1.97	70	1	No defect	8.7	Pass

Test Conditon: 2000A, 125VDC						
Unit	Pre test DCR/V-drop		Power Factor	Breaking Capacity	IR (100V)	Result
	mΩ	mV		Appearance Inspection	GΩ	
201	1.97	70	1	No defect	25.3	Pass
202	1.97	70	1	No defect	30.4	Pass
203	1.99	70	1	No defect	4.6	Pass
204	1.95	69	1	No defect	27.6	Pass
205	1.95	69	1	No defect	8.9	Pass
206	1.95	69	1	No defect	10.4	Pass
207	1.95	68	1	No defect	9.6	Pass
208	1.93	68	1	No defect	45.3	Pass
209	1.99	71	1	No defect	27.8	Pass
210	1.95	69	1	No defect	8.4	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Test at Elevated Temperature

Fuse Type and Rating : 0683G 30A

Production Lot Number : ENG' samples (10% Sn plating element)

Project Number : FPQ-189

Fuse Part Number : 0683G9300-XX

Condition : IEC 60127-1 9.2.2

70 ± 2 °C, 1 hr, 100 % testing current

Unit	Pre test DCR/V-drop		After test		% change		Result
	mΩ	mV	mΩ	mV	R	V	
211	1.97	69	2.01	71	2	3	Pass
212	2.00	73	2.04	73	2	0	Pass
213	1.99	73	2.10	78	6	7	Pass
214	2.01	71	2.05	73	2	3	Pass
215	1.99	70	2.05	73	3	4	Pass
216	1.97	69	2.01	72	2	4	Pass
217	1.96	69	1.97	70	1	1	Pass
218	1.94	69	1.99	70	3	1	Pass
219	1.97	70	2.01	71	2	1	Pass
220	1.96	69	1.99	70	2	1	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Time Current Characteristics

Fuse Type and Rating : 0683G 30A

Production Lot Number : ENG' samples (10% Sn plating element)

Project Number : FPQ-189

Fuse Part Number : 0683G9300-XX

Condition : IEC 60127-1 9.2

Time current characteristics shall be within the specification.

100% / 210% / 1000% testing current

Unit	Pre test DCR/V-drop		100% rated current	210% rated current	1000% rated current	Result
	mΩ	mV	Min:4 Hr.	Max: 120s	10-100ms	
221	2.00	72	>4			Pass
222	2.00	71	>4			Pass
223	2.00	72	>4			Pass
224	2.00	71	>4			Pass
225	2.00	71	>4			Pass
226	1.99	71	>4			Pass
227	1.99	73	>4			Pass
228	1.99	71	>4			Pass
229	1.99	71	>4			Pass
230	1.99	71	>4			Pass
231	1.96	69		3.45		Pass
232	1.95	69		3.19		Pass
233	1.95	68		2.57		Pass
234	1.95	70		3.60		Pass
235	1.94	70		2.95		Pass
236	1.93	71		3.20		Pass
237	1.93	71		3.11		Pass
238	1.92	68		2.78		Pass
239	1.92	68		3.00		Pass
240	1.89	67		2.74		Pass
241	1.99	71			11.2	Pass
242	1.99	71			11.4	Pass
243	1.98	72			11.6	Pass
244	1.98	72			11.6	Pass
245	1.98	71			11.8	Pass
246	1.97	70			11.4	Pass
247	1.97	70			11.6	Pass
248	1.97	70			11.6	Pass
249	1.97	71			11.4	Pass
250	1.96	70			11.6	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Moisture resistance test

Fuse Type and Rating : 0683G 30A

Production Lot Number : ENG' samples (10% Sn plating element)

Project Number : FPQ-189

Fuse Part Number : 0683G9300-XX

Condition : MIL-STD-202 Method 106,Condition E

10 cycles, 24 hrs, 25 °C to 65 °C then 10°C, 90 - 95 % RH

Unit	Pre test DCR/V-drop		After test		% change		100% rated current	210% rated current	Result
	mΩ	mV	mΩ	mV	R	V	Min:4 Hr.	Max: 120s	
251	2.01	73	2.00	72	0	-1	>4		Pass
252	2.01	72	2.02	72	0	0	>4		Pass
253	2.01	73	1.98	72	-1	-1	>4		Pass
254	2.00	71	1.98	72	-1	1	>4		Pass
255	2.00	71	2.00	71	0	0	>4		Pass
256	2.00	70	1.96	71	-2	1	>4		Pass
257	2.00	72	2.01	72	0	0	>4		Pass
258	1.99	70	1.94	69	-3	-1	>4		Pass
259	1.99	71	2.01	72	1	1	>4		Pass
260	1.99	73	1.98	71	-1	-3	>4		Pass
261	1.99	71	2.00	73	1	3		3.73	Pass
262	1.98	70	2.00	72	1	3		3.03	Pass
263	1.98	70	1.99	71	1	1		2.86	Pass
264	1.98	71	1.98	73	0	3		2.88	Pass
265	1.97	70	1.99	70	1	0		3.34	Pass
266	1.97	70	1.95	69	-1	-1		3.38	Pass
267	1.96	70	1.94	69	-1	-1		2.87	Pass
268	1.95	71	1.92	70	-2	-1		3.31	Pass
269	1.91	67	1.91	67	0	0		3.95	Pass
270	1.90	67	1.93	69	2	3		2.95	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Salt Spray test

Fuse Type and Rating : 0683G 30A

Production Lot Number : ENG' samples (10% Sn plating element)

Project Number : FPQ-189

Fuse Part Number : 0683G9300-XX

Condition : MIL-STD-202 Method 101,Condition B

Saturated salt spray at 35 °C for 48 hrs

Unit	Initial DCR / V-Drop		After test		% change		100% rated current	210% rated current	Result
	mΩ	mV	mΩ	mV	R	V	Min:4 Hr.	Max: 120s	
271	1.96	69	1.95	72	-1	4	>4		Pass
272	1.99	72	1.97	72	-1	0	>4		Pass
273	1.98	70	1.97	71	-1	1	>4		Pass
274	1.99	71	1.99	70	0	-1	>4		Pass
275	1.97	70	1.95	71	-1	1	>4		Pass
276	1.93	69	1.92	70	-1	1	>4		Pass
277	1.94	68	1.92	70	-1	3	>4		Pass
278	1.99	71	1.97	72	-1	1	>4		Pass
279	1.97	71	1.94	73	-2	3	>4		Pass
280	1.97	73	1.94	75	-2	3	>4		Pass
281	1.98	70	1.95	72	-2	3		3.07	Pass
282	1.98	72	1.96	73	-1	1		2.55	Pass
283	1.93	68	1.91	70	-1	3		3.27	Pass
284	1.95	69	1.94	70	-1	1		3.45	Pass
285	1.99	72	1.97	73	-1	1		3.04	Pass
286	1.95	69	1.92	71	-2	3		3.59	Pass
287	1.99	72	1.97	73	-1	1		2.88	Pass
288	1.97	70	1.94	72	-2	3		3.84	Pass
289	1.91	67	1.88	68	-2	1		4.28	Pass
290	1.99	71	1.97	70	-1	-1		2.74	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Mechanical Shock & Vibration test

Fuse Type and Rating : 0683G 30A

Production Lot Number : ENG' samples (10% Sn plating element)

Project Number : FPQ-189

Fuse Part Number : 0683G9300-XX

Condition : MIL-STD-202 Method 213,Condition I

Mechanical shock test

100 G's peak for 6 ms, sawtooth waveform

MIL-STD-202 Method 201,Condition A

Vibration test

10 - 55 Hz, 0.06 inch total excursion, 2 hrs in each of 3 directions, after Mechanical shock test.

Unit	Pre test DCR/V-drop		After test		% change		100% rated current	210% rated current	Result
	mΩ	mV	mΩ	mV	R	V	Min:4 Hr.	Max: 120s	
291	2.01	73	2.02	74	0	1	>4		Pass
292	2.01	72	2.03	74	1	3	>4		Pass
293	2.01	72	2.02	73	0	1	>4		Pass
294	2.00	73	2.00	72	0	-1	>4		Pass
295	2.00	71	2.00	72	0	1	>4		Pass
296	2.00	71	2.03	74	1	4	>4		Pass
297	1.99	71	2.02	73	2	3	>4		Pass
298	1.99	71	2.04	75	3	6	>4		Pass
299	1.99	72	2.00	75	1	4	>4		Pass
300	1.98	70	1.98	72	0	3	>4		Pass
301	1.98	69	1.97	69	-1	0		2.98	Pass
302	1.98	70	2.03	73	3	4		2.86	Pass
303	1.97	69	1.96	70	-1	1		3.88	Pass
304	1.97	70	1.97	72	0	3		3.43	Pass
305	1.97	72	1.99	74	1	3		1.93	Pass
306	1.96	70	1.95	71	-1	1		3.77	Pass
307	1.95	70	1.98	72	2	3		1.94	Pass
308	1.94	70	1.97	73	2	4		3.00	Pass
309	1.93	68	1.95	70	1	3		2.78	Pass
310	1.93	69	1.95	69	1	0		3.75	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Solderability Test

Fuse Type and Rating : 0683G 30A

Production Lot Number : ENG' samples (10% Sn plating element)

Project Number : FPQ-189

Fuse Part Number : 0683G9300-XX

Condition : **J-STD-002** Solderability test, no aging
 J-STD-002 Solderability test, dry aging, 155 °C, 16 hrs
 J-STD-002 Solderability test, steam aging, 8 hrs
 immerse to flux 5 ± 1 sec then dip in solder bath 245 ± 5 °C, 5 ± 0.5 sec

Unit	Initial DCR / V-Drop		No age	Dry age	steam age	Result
	mΩ	mV		155°C, 16hr.	93°C,8Hr.	
311	1.92	67	100% solder coverage			Pass
312	1.96	69	100% solder coverage			Pass
313	1.95	69	100% solder coverage			Pass
314	1.93	68	100% solder coverage			Pass
315	1.97	70	100% solder coverage			Pass
316	1.96	69	100% solder coverage			Pass
317	1.89	66	100% solder coverage			Pass
318	1.96	69	100% solder coverage			Pass
319	1.95	68	100% solder coverage			Pass
320	1.96	70	100% solder coverage			Pass
321	1.94	68		100% solder coverage		Pass
322	1.97	69		100% solder coverage		Pass
323	1.96	68		100% solder coverage		Pass
324	1.92	67		100% solder coverage		Pass
325	1.97	69		100% solder coverage		Pass
326	1.91	67		100% solder coverage		Pass
327	1.90	69		100% solder coverage		Pass
328	1.97	70		100% solder coverage		Pass
329	1.94	68		100% solder coverage		Pass
330	1.93	68		100% solder coverage		Pass
331	1.92	68			100% solder coverage	Pass
332	1.89	69			100% solder coverage	Pass
333	1.95	68			100% solder coverage	Pass
334	1.91	69			100% solder coverage	Pass
335	1.96	70			100% solder coverage	Pass
336	1.92	69			100% solder coverage	Pass
337	1.94	67			100% solder coverage	Pass
338	1.94	68			100% solder coverage	Pass
339	1.97	70			100% solder coverage	Pass
340	1.95	68			100% solder coverage	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Resistance To Soldering Heat Test

Fuse Type and Rating : 0683G 30A
Production Lot Number : ENG' samples (10% Sn plating element)
Project Number : FPQ-189
Fuse Part Number : 0683G9300-XX

Condition : MIL-STD-202 Method 210 Dip solder bath 260 ± 5 °C, 10 ± 1 sec

Unit	Initial DCR / V-Drop		after test		% change		100%	210%	1000%	Result
	mΩ	mV	mΩ	mV	R	V	Min:4 Hr.	Max: 120s	10ms-100ms	
341	2.01	71	2.10	75	4	6	>4			Pass
342	2.01	72	2.08	76	3	6	>4			Pass
343	2.01	72	2.06	76	2	6	>4			Pass
344	2.01	73	2.02	72	0	-1	>4			Pass
345	2.00	71	2.03	74	2	4	>4			Pass
346	2.00	71	2.02	74	1	4	>4			Pass
347	2.00	71	2.03	73	2	3	>4			Pass
348	2.00	72	2.05	77	2	7	>4			Pass
349	1.99	74	2.01	78	1	5	>4			Pass
350	1.99	70	2.03	73	2	4	>4			Pass
351	1.97	69	2.01	71	1	1		2.97		Pass
352	1.97	73	2.03	75	-1	1		3.84		Pass
353	1.96	69	2.01	73	2	4		3.32		Pass
354	1.95	69	2.00	71	1	0		2.96		Pass
355	1.95	69	2.03	74	-1	1		2.65		Pass
356	1.95	68	2.02	73	1	4		3.68		Pass
357	1.95	68	2.00	72	1	1		1.95		Pass
358	1.95	72	2.04	77	3	7		3.84		Pass
359	1.95	69	1.98	71	1	3		3.42		Pass
360	1.93	69	1.99	71	3	6		4.55		Pass
361	1.99	70	2.00	71	2	3			11.2	Pass
362	1.99	69	1.97	70	3	3			11.0	Pass
363	1.99	71	2.03	74	3	6			11.4	Pass
364	1.99	71	2.00	71	3	3			11.4	Pass
365	1.98	70	1.97	71	4	7			11.6	Pass
366	1.98	69	2.00	72	4	7			11.6	Pass
367	1.98	70	1.99	71	3	6			12.4	Pass
368	1.97	69	2.02	74	5	7			11.2	Pass
369	1.97	70	1.98	72	2	3			12.2	Pass
370	1.97	69	2.02	73	3	3			10.9	Pass

Reported By: Hu Hong Guo
 Reported Date: Jul 06, 2026



Terminal Strength Test

Fuse Type and Rating : 0683G 30A

Production Lot Number : ENG' samples (10% Sn plating element)

Project Number : FPQ-189

Fuse Part Number : 0683G9300-XX

Condition : IEC60068-2-2: Terminal Strength

fuse mount on PCB, PCB bent by 1 mm at a rate 1 mm/sec

Unit	Pre test DCR/V-drop		After Pull test		% change		Result
	mΩ	mV	mΩ	mV	R	V	
371	1.94	68	1.92	67	-1	-1	Pass
372	1.95	72	1.93	71	-1	-1	Pass
373	1.96	70	1.95	69	-1	-1	Pass
374	1.99	71	1.99	71	0	0	Pass
375	1.92	67	1.90	66	-1	-1	Pass
376	1.96	68	1.94	70	-1	3	Pass
377	1.93	69	1.90	67	-2	-3	Pass
378	1.95	68	1.94	69	-1	1	Pass
379	1.97	70	1.96	69	-1	-1	Pass
380	1.94	67	1.93	68	-1	1	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



Surge resistance cycle test

Fuse Type and Rating : 0683G 30A

Production Lot Number : ENG' samples (10% Sn plating element)

Project Number : FPQ-189

Fuse Part Number : 0683G9300-XX

Condition : QUAL-WORK-EE

1000 cycles rectangle wave, 195A peak for 10ms duration, 10 sec pulse interval.

Unit	Pre test DCR/V-drop		After test		% change		Result
	mΩ	mV	mΩ	mV	R	V	
381	1.98	70	2.05	74	4	6	Pass
382	2.03	72	2.09	75	3	4	Pass
383	1.96	71	2.07	76	6	7	Pass
384	2.01	70	2.09	75	4	7	Pass
385	1.94	69	2.03	73	5	6	Pass
386	2.01	70	2.07	74	3	6	Pass
387	2.01	70	2.09	74	4	6	Pass
388	1.99	70	2.06	73	4	4	Pass
389	2.03	72	2.09	74	3	3	Pass
390	2.01	69	2.06	73	2	6	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026



IR reflow soldering

Fuse Type and Rating : 0683G 30A

Production Lot Number : ENG' samples (10% Sn plating element)

Project Number : FPQ-189

Fuse Part Number : 0683G9300-XX

Condition : J-STD-020

Peak temperature 260°C for 30s max. with 3 cycles; 96SC Solder paste

Unit	Initial DCR / V-Drop		After test		% change		Appearance inspection	Result
	mΩ	mV	mΩ	mV	R	V		
11	2.00	71	1.97	70	-2	-1	No Defect	Pass
12	2.02	73	1.98	71	-2	-3	No Defect	Pass
13	2.02	75	2.01	74	0	-1	No Defect	Pass
14	1.92	71	1.92	70	0	-1	No Defect	Pass
15	1.97	71	1.99	72	1	1	No Defect	Pass
16	2.05	74	2.01	72	-2	-3	No Defect	Pass
17	2.01	71	1.98	70	-1	-1	No Defect	Pass
18	2.01	76	2.01	76	0	0	No Defect	Pass
19	1.92	71	1.89	69	-2	-3	No Defect	Pass
20	2.03	73	2.00	72	-1	-1	No Defect	Pass
21	1.97	75	1.95	74	-1	-1	No Defect	Pass
22	1.96	73	1.98	74	1	1	No Defect	Pass
23	1.96	72	1.96	72	0	0	No Defect	Pass
24	1.99	72	2.00	72	1	0	No Defect	Pass
25	2.02	72	1.98	70	-2	-3	No Defect	Pass
26	2.06	75	2.01	73	-2	-3	No Defect	Pass
27	1.98	71	2.01	72	2	1	No Defect	Pass
28	1.89	70	1.87	69	-1	-1	No Defect	Pass
29	1.99	73	1.99	72	0	-1	No Defect	Pass
30	1.99	71	1.95	70	-2	-1	No Defect	Pass
31	2.01	75	1.99	74	-1	-1	No Defect	Pass
32	2.00	71	1.99	71	-1	0	No Defect	Pass
33	2.01	73	2.00	72	0	-1	No Defect	Pass
34	1.94	69	1.97	70	2	1	No Defect	Pass
35	2.05	74	2.00	72	-2	-3	No Defect	Pass
36	2.02	72	1.98	71	-2	-1	No Defect	Pass
37	1.99	73	1.96	72	-2	-1	No Defect	Pass
38	2.00	72	1.96	70	-2	-3	No Defect	Pass
39	2.02	74	2.01	73	0	-1	No Defect	Pass
40	1.97	71	1.97	70	0	-1	No Defect	Pass
41	1.99	72	2.01	73	1	1	No Defect	Pass
42	2.02	73	1.98	71	-2	-3	No Defect	Pass
43	2.04	74	2.01	73	-1	-1	No Defect	Pass
44	1.99	74	1.99	74	0	0	No Defect	Pass
45	2.04	75	2.01	73	-1	-3	No Defect	Pass
46	1.93	71	1.90	70	-2	-1	No Defect	Pass
47	2.00	74	1.98	73	-1	-1	No Defect	Pass
48	1.98	70	2.00	71	1	1	No Defect	Pass
49	1.94	69	1.94	69	0	0	No Defect	Pass
50	2.00	72	2.01	72	1	0	No Defect	Pass
51	2.02	72	1.98	70	-2	-3	No Defect	Pass
52	2.03	73	1.98	71	-2	-3	No Defect	Pass
53	1.96	71	1.99	72	2	1	No Defect	Pass
54	2.01	71	1.99	70	-1	-1	No Defect	Pass
55	1.96	70	1.96	69	0	-1	No Defect	Pass
56	2.01	71	1.97	70	-2	-1	No Defect	Pass
57	2.03	72	2.01	71	-1	-1	No Defect	Pass
58	1.98	69	1.97	69	-1	0	No Defect	Pass
59	2.02	72	2.01	71	0	-1	No Defect	Pass
60	1.95	68	1.98	69	2	1	No Defect	Pass
61	2.03	71	1.98	69	-2	-3	No Defect	Pass
62	2.00	70	1.96	69	-2	-1	No Defect	Pass



IR reflow soldering

Fuse Type and Rating : 0683G 30A

Production Lot Number : ENG' samples (10% Sn plating element)

Project Number : FPQ-189

Fuse Part Number : 0683G9300-XX

Condition : J-STD-020

Peak temperature 260°C for 30s max. with 3 cycles; 96SC Solder paste

Unit	Initial DCR / V-Drop		After test		% change		Appearance inspection	Result
	mΩ	mV	mΩ	mV	R	V		
63	1.99	70	1.95	69	-2	-1	No Defect	Pass
64	2.03	73	2.01	72	-1	-1	No Defect	Pass
65	2.01	71	2.00	71	0	0	No Defect	Pass
66	2.00	71	1.99	70	-1	-1	No Defect	Pass
67	1.96	70	1.99	71	2	1	No Defect	Pass
68	1.98	74	1.93	72	-3	-3	No Defect	Pass
69	2.05	72	2.01	71	-2	-1	No Defect	Pass
70	2.03	72	2.00	71	-1	-1	No Defect	Pass
71	2.05	71	2.01	69	-2	-3	No Defect	Pass
72	1.97	72	1.96	71	-1	-1	No Defect	Pass
73	2.00	72	2.00	71	0	-1	No Defect	Pass
74	1.97	69	1.99	70	1	1	No Defect	Pass
75	2.03	72	1.99	70	-2	-3	No Defect	Pass
76	1.94	69	1.91	68	-2	-1	No Defect	Pass
77	2.00	72	2.00	72	0	0	No Defect	Pass
78	2.01	72	1.98	70	-1	-3	No Defect	Pass
79	2.02	73	1.99	72	-1	-1	No Defect	Pass
80	2.03	69	2.01	68	-1	-1	No Defect	Pass
81	1.89	68	1.91	69	1	1	No Defect	Pass
82	1.94	68	1.94	68	0	0	No Defect	Pass
83	1.96	69	1.97	69	1	0	No Defect	Pass
84	2.03	75	1.99	73	-2	-3	No Defect	Pass
85	1.97	69	1.92	67	-3	-3	No Defect	Pass
86	1.97	69	2.00	70	2	1	No Defect	Pass
87	2.01	74	1.99	73	-1	-1	No Defect	Pass
88	1.99	69	2.01	70	1	1	No Defect	Pass
89	1.95	72	1.91	70	-2	-3	No Defect	Pass
90	2.04	72	2.01	71	-1	-1	No Defect	Pass
91	1.97	69	1.97	69	0	0	No Defect	Pass
92	2.03	72	2.00	70	-1	-3	No Defect	Pass
93	2.02	73	1.99	72	-1	-1	No Defect	Pass
94	1.99	71	1.97	70	-1	-1	No Defect	Pass
95	1.96	69	1.98	70	1	1	No Defect	Pass
96	1.97	72	1.97	72	0	0	No Defect	Pass
97	1.96	70	1.97	70	1	0	No Defect	Pass
98	2.02	70	1.98	68	-2	-3	No Defect	Pass
99	2.00	70	1.95	68	-3	-3	No Defect	Pass
100	1.97	69	2.00	70	2	1	No Defect	Pass
101	2.01	72	1.99	71	-1	-1	No Defect	Pass
102	1.95	70	1.95	69	0	-1	No Defect	Pass
103	2.02	70	1.98	69	-2	-1	No Defect	Pass
104	2.00	71	1.98	70	-1	-1	No Defect	Pass
105	2.02	71	2.01	71	0	0	No Defect	Pass
106	1.98	71	1.97	70	-1	-1	No Defect	Pass
107	1.96	69	1.99	70	2	1	No Defect	Pass
108	2.00	71	1.95	69	-3	-3	No Defect	Pass
109	2.01	71	1.97	70	-2	-1	No Defect	Pass
110	2.01	71	1.98	70	-1	-1	No Defect	Pass
111	2.04	74	2.00	72	-2	-3	No Defect	Pass
112	1.96	70	1.95	69	-1	-1	No Defect	Pass
113	1.92	68	1.92	67	0	-1	No Defect	Pass
114	1.89	69	1.91	70	1	1	No Defect	Pass



IR reflow soldering

Fuse Type and Rating : 0683G 30A

Production Lot Number : ENG' samples (10% Sn plating element)

Project Number : FPQ-189

Fuse Part Number : 0683G9300-XX

Condition : J-STD-020

Peak temperature 260°C for 30s max. with 3 cycles; 96SC Solder paste

Unit	Initial DCR / V-Drop		After test		% change		Appearance inspection	Result
	mΩ	mV	mΩ	mV	R	V		
115	2.00	71	1.96	69	-2	-3	No Defect	Pass
116	1.97	70	1.94	69	-2	-1	No Defect	Pass
117	1.90	68	1.90	68	0	0	No Defect	Pass
118	2.01	75	1.98	73	-1	-3	No Defect	Pass
119	2.03	72	2.00	71	-1	-1	No Defect	Pass
120	1.95	69	1.97	70	1	1	No Defect	Pass
121	2.04	74	2.00	72	-2	-3	No Defect	Pass
122	1.99	71	1.96	70	-2	-1	No Defect	Pass
123	2.00	73	2.00	73	0	0	No Defect	Pass
124	1.94	71	1.91	69	-2	-3	No Defect	Pass
125	2.04	72	2.01	71	-1	-1	No Defect	Pass
126	1.96	70	1.94	69	-1	-1	No Defect	Pass
127	1.96	70	1.98	71	1	1	No Defect	Pass
128	2.00	71	2.00	71	0	0	No Defect	Pass
129	1.99	71	2.00	71	1	0	No Defect	Pass
130	2.05	73	2.01	71	-2	-3	No Defect	Pass
131	1.95	69	1.90	67	-3	-3	No Defect	Pass
132	1.86	75	1.89	76	2	1	No Defect	Pass
133	2.00	70	1.98	69	-1	-1	No Defect	Pass
134	1.92	72	1.92	71	0	-1	No Defect	Pass
135	2.00	71	1.96	70	-2	-1	No Defect	Pass
136	2.00	72	1.98	71	-1	-1	No Defect	Pass
137	2.00	72	1.99	72	-1	0	No Defect	Pass
138	1.92	70	1.91	69	-1	-1	No Defect	Pass
139	1.92	68	1.95	69	2	1	No Defect	Pass
140	2.02	74	1.97	72	-2	-3	No Defect	Pass
141	2.03	72	1.99	71	-2	-1	No Defect	Pass
142	1.98	70	1.95	69	-2	-1	No Defect	Pass
143	2.01	72	1.97	70	-2	-3	No Defect	Pass
144	2.01	73	2.00	72	0	-1	No Defect	Pass
145	1.98	70	1.98	69	0	-1	No Defect	Pass
146	1.97	72	1.99	73	1	1	No Defect	Pass
147	2.03	74	1.99	72	-2	-3	No Defect	Pass
148	2.03	71	2.00	70	-1	-1	No Defect	Pass
149	1.98	71	1.98	71	0	0	No Defect	Pass
150	2.04	75	2.01	73	-1	-3	No Defect	Pass
151	2.04	73	2.01	72	-1	-1	No Defect	Pass
152	2.00	71	2.02	72	1	1	No Defect	Pass
153	2.03	73	1.99	71	-2	-3	No Defect	Pass
154	2.00	71	1.97	70	-2	-1	No Defect	Pass
155	1.98	70	1.98	70	0	0	No Defect	Pass
156	2.03	74	2.00	72	-1	-3	No Defect	Pass
157	2.04	72	2.01	71	-1	-1	No Defect	Pass
158	2.04	73	2.02	72	-1	-1	No Defect	Pass
159	1.94	69	1.96	70	1	1	No Defect	Pass
160	1.97	70	1.97	70	0	0	No Defect	Pass
161	1.99	71	2.00	71	1	0	No Defect	Pass
162	2.06	74	2.02	72	-2	-3	No Defect	Pass
163	2.03	74	1.98	72	-2	-3	No Defect	Pass
164	1.94	70	1.97	71	2	1	No Defect	Pass
165	2.03	73	2.01	72	-1	-1	No Defect	Pass
166	1.96	74	1.96	73	0	-1	No Defect	Pass



IR reflow soldering

Fuse Type and Rating : 0683G 30A

Production Lot Number : ENG' samples (10% Sn plating element)

Project Number : FPQ-189

Fuse Part Number : 0683G9300-XX

Condition : J-STD-020

Peak temperature 260°C for 30s max. with 3 cycles; 96SC Solder paste

Unit	Initial DCR / V-Drop		After test		% change		Appearance inspection	Result
	mΩ	mV	mΩ	mV	R	V		
167	2.06	74	2.02	73	-2	-1	No Defect	Pass
168	1.95	70	1.93	69	-1	-1	No Defect	Pass
169	1.97	72	1.96	72	-1	0	No Defect	Pass
170	2.02	74	2.01	73	0	-1	No Defect	Pass
171	1.98	72	2.01	73	2	1	No Defect	Pass
172	2.08	75	2.03	73	-2	-3	No Defect	Pass
173	2.09	73	2.05	72	-2	-1	No Defect	Pass
174	2.05	72	2.02	71	-1	-1	No Defect	Pass
175	2.07	73	2.03	71	-2	-3	No Defect	Pass
176	2.03	74	2.02	73	0	-1	No Defect	Pass
177	1.98	72	1.98	71	0	-1	No Defect	Pass
178	1.99	72	2.01	73	1	1	No Defect	Pass
179	2.05	73	2.01	71	-2	-3	No Defect	Pass
180	2.07	73	2.04	72	-1	-1	No Defect	Pass
181	1.92	70	1.92	70	0	0	No Defect	Pass
182	2.02	73	1.99	71	-1	-3	No Defect	Pass
183	1.98	70	1.95	69	-2	-1	No Defect	Pass
184	1.96	69	1.98	70	1	1	No Defect	Pass
185	1.95	72	1.91	70	-2	-3	No Defect	Pass
186	1.96	69	1.93	68	-2	-1	No Defect	Pass
187	1.90	69	1.90	69	0	0	No Defect	Pass
188	2.00	72	1.97	70	-2	-3	No Defect	Pass
189	2.00	70	1.97	69	-2	-1	No Defect	Pass
190	1.99	71	1.97	70	-1	-1	No Defect	Pass
191	1.93	67	1.95	68	1	1	No Defect	Pass
192	1.97	67	1.97	67	0	0	No Defect	Pass
193	1.98	71	1.99	71	1	0	No Defect	Pass
194	2.03	72	1.99	70	-2	-3	No Defect	Pass
195	2.02	71	1.97	69	-2	-3	No Defect	Pass
196	1.93	68	1.96	69	2	1	No Defect	Pass
197	1.95	69	1.93	68	-1	-1	No Defect	Pass
198	1.97	71	1.97	70	0	-1	No Defect	Pass
199	1.99	67	1.95	66	-2	-1	No Defect	Pass
200	1.99	71	1.97	70	-1	-1	No Defect	Pass
201	1.98	70	1.97	70	-1	0	No Defect	Pass
202	1.98	71	1.97	70	-1	-1	No Defect	Pass
203	1.96	69	1.99	70	2	1	No Defect	Pass
204	2.00	71	1.95	69	-3	-3	No Defect	Pass
205	1.99	70	1.95	69	-2	-1	No Defect	Pass
206	1.98	70	1.95	69	-2	-1	No Defect	Pass
207	1.99	70	1.95	68	-2	-3	No Defect	Pass
208	1.94	69	1.93	68	-1	-1	No Defect	Pass
209	1.99	72	1.99	71	0	-1	No Defect	Pass
210	1.93	68	1.95	69	1	1	No Defect	Pass
211	2.01	71	1.97	69	-2	-3	No Defect	Pass
212	2.03	74	2.00	73	-1	-1	No Defect	Pass
213	1.99	73	1.99	73	0	0	No Defect	Pass
214	2.04	73	2.01	71	-1	-3	No Defect	Pass
215	2.02	71	1.99	70	-1	-1	No Defect	Pass
216	1.95	68	1.97	69	1	1	No Defect	Pass
217	2.00	71	1.96	69	-2	-3	No Defect	Pass
218	1.97	70	1.94	69	-2	-1	No Defect	Pass



IR reflow soldering

Fuse Type and Rating : 0683G 30A

Production Lot Number : ENG' samples (10% Sn plating element)

Project Number : FPQ-189

Fuse Part Number : 0683G9300-XX

Condition : J-STD-020

Peak temperature 260°C for 30s max. with 3 cycles; 96SC Solder paste

Unit	Initial DCR / V-Drop		After test		% change		Appearance inspection	Result
	mΩ	mV	mΩ	mV	R	V		
219	1.97	70	1.97	70	0	0	No Defect	Pass
220	1.99	71	1.96	69	-2	-3	No Defect	Pass
221	2.03	73	2.00	72	-1	-1	No Defect	Pass
222	2.02	72	2.00	71	-1	-1	No Defect	Pass
223	1.98	71	2.00	72	1	1	No Defect	Pass
224	2.00	71	2.00	71	0	0	No Defect	Pass
225	1.99	71	2.00	71	1	0	No Defect	Pass
226	2.03	73	1.99	71	-2	-3	No Defect	Pass
227	2.04	75	1.99	73	-2	-3	No Defect	Pass
228	1.96	70	1.99	71	2	1	No Defect	Pass
229	2.01	72	1.99	71	-1	-1	No Defect	Pass
230	1.99	72	1.99	71	0	-1	No Defect	Pass
231	2.00	70	1.96	69	-2	-1	No Defect	Pass
232	1.97	70	1.95	69	-1	-1	No Defect	Pass
233	1.96	68	1.95	68	-1	0	No Defect	Pass
234	1.96	71	1.95	70	-1	-1	No Defect	Pass
235	1.91	69	1.94	70	2	1	No Defect	Pass
236	1.98	73	1.93	71	-3	-3	No Defect	Pass
237	1.97	72	1.93	71	-2	-1	No Defect	Pass
238	1.95	69	1.92	68	-2	-1	No Defect	Pass
239	1.96	70	1.92	68	-2	-3	No Defect	Pass
240	1.90	68	1.89	67	-1	-1	No Defect	Pass
241	1.99	72	1.99	71	0	-1	No Defect	Pass
242	1.97	70	1.99	71	1	1	No Defect	Pass
243	2.02	74	1.98	72	-2	-3	No Defect	Pass
244	2.01	73	1.98	72	-1	-1	No Defect	Pass
245	1.98	71	1.98	71	0	0	No Defect	Pass
246	2.00	72	1.97	70	-2	-3	No Defect	Pass
247	2.00	71	1.97	70	-2	-1	No Defect	Pass
248	1.95	69	1.97	70	1	1	No Defect	Pass
249	2.01	73	1.97	71	-2	-3	No Defect	Pass
250	1.99	71	1.96	70	-2	-1	No Defect	Pass
251	2.01	73	2.01	73	0	0	No Defect	Pass
252	2.04	74	2.01	72	-1	-3	No Defect	Pass
253	2.04	74	2.01	73	-1	-1	No Defect	Pass
254	2.02	72	2.00	71	-1	-1	No Defect	Pass
255	1.98	70	2.00	71	1	1	No Defect	Pass
256	2.00	70	2.00	70	0	0	No Defect	Pass
257	1.99	72	2.00	72	1	0	No Defect	Pass
258	2.03	72	1.99	70	-2	-3	No Defect	Pass
259	2.04	73	1.99	71	-2	-3	No Defect	Pass
260	1.96	72	1.99	73	2	1	No Defect	Pass
261	2.01	72	1.99	71	-1	-1	No Defect	Pass
262	1.98	71	1.98	70	0	-1	No Defect	Pass
263	2.02	71	1.98	70	-2	-1	No Defect	Pass
264	2.00	72	1.98	71	-1	-1	No Defect	Pass
265	1.98	70	1.97	70	-1	0	No Defect	Pass
266	1.98	71	1.97	70	-1	-1	No Defect	Pass
267	1.93	69	1.96	70	2	1	No Defect	Pass
268	2.00	73	1.95	71	-3	-3	No Defect	Pass
269	1.95	68	1.91	67	-2	-1	No Defect	Pass
270	1.93	68	1.90	67	-2	-1	No Defect	Pass



IR reflow soldering

Fuse Type and Rating : 0683G 30A

Production Lot Number : ENG' samples (10% Sn plating element)

Project Number : FPQ-189

Fuse Part Number : 0683G9300-XX

Condition : J-STD-020

Peak temperature 260°C for 30s max. with 3 cycles; 96SC Solder paste

Unit	Initial DCR / V-Drop		After test		% change		Appearance inspection	Result
	mΩ	mV	mΩ	mV	R	V		
291	2.05	75	2.01	73	-2	-3	No Defect	Pass
292	2.02	73	2.01	72	0	-1	No Defect	Pass
293	2.01	73	2.01	72	0	-1	No Defect	Pass
294	1.98	72	2.00	73	1	1	No Defect	Pass
295	2.04	73	2.00	71	-2	-3	No Defect	Pass
296	2.03	72	2.00	71	-1	-1	No Defect	Pass
297	1.99	71	1.99	71	0	0	No Defect	Pass
298	2.02	73	1.99	71	-1	-3	No Defect	Pass
299	2.02	73	1.99	72	-1	-1	No Defect	Pass
300	1.96	69	1.98	70	1	1	No Defect	Pass
301	2.02	71	1.98	69	-2	-3	No Defect	Pass
302	2.01	71	1.98	70	-1	-1	No Defect	Pass
303	1.97	69	1.97	69	0	0	No Defect	Pass
304	2.00	72	1.97	70	-2	-3	No Defect	Pass
305	2.00	73	1.97	72	-2	-1	No Defect	Pass
306	1.98	71	1.96	70	-1	-1	No Defect	Pass
307	1.93	69	1.95	70	1	1	No Defect	Pass
308	1.94	70	1.94	70	0	0	No Defect	Pass
309	1.92	68	1.93	68	1	0	No Defect	Pass
310	1.97	71	1.93	69	-2	-3	No Defect	Pass
371	1.99	70	1.94	68	-3	-3	No Defect	Pass
372	1.92	71	1.95	72	2	1	No Defect	Pass
373	1.98	71	1.96	70	-1	-1	No Defect	Pass
374	1.99	72	1.99	71	0	-1	No Defect	Pass
375	1.96	68	1.92	67	-2	-1	No Defect	Pass
376	1.98	69	1.96	68	-1	-1	No Defect	Pass
377	1.94	69	1.93	69	-1	0	No Defect	Pass
378	1.96	69	1.95	68	-1	-1	No Defect	Pass
379	1.94	69	1.97	70	2	1	No Defect	Pass
380	1.99	69	1.94	67	-3	-3	No Defect	Pass
381	2.02	71	1.98	70	-2	-1	No Defect	Pass
382	2.06	73	2.03	72	-1	-1	No Defect	Pass
383	2.00	73	1.96	71	-2	-3	No Defect	Pass
384	2.02	71	2.01	70	0	-1	No Defect	Pass
385	1.94	70	1.94	69	0	-1	No Defect	Pass
386	1.99	69	2.01	70	1	1	No Defect	Pass
387	2.05	72	2.01	70	-2	-3	No Defect	Pass
388	2.02	71	1.99	70	-1	-1	No Defect	Pass
389	2.03	72	2.03	72	0	0	No Defect	Pass
390	2.04	71	2.01	69	-1	-3	No Defect	Pass

Reported By: Hu Hong Guo

Reported Date: Jul 06, 2026