

SPECIFICATION AND PERFORMANCE

Series	304A-25XXSC1	File	304A-25XXSC1_SPEC_1	Date	2026/08/05
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Scope:

This specification covers the requirements for product performance, test methods and quality assurance provisions of below

Part Name	Description
304A-2505SC1	Blade Battery connector, Female, Pitch 2.5, Tube+KAPTON, H4.0, 5 pin
304A-2507SC1	Blade Battery connector, Female, Pitch 2.5, Tube+KAPTON, H4.0, 7 pin

Performance and Descriptions:

The product is designed to meet the electrical, mechanical and environmental performance requirements specification. Unless otherwise specified, all tests are performed at ambient environmental conditions.

RoHS:

All material in according with the RoHS environment related substances list controlled.

MATERIALS

NO.	PART NAME	DESCRIPTION
1	HOUSING	LCP MG-350, UL94-V0, black
2	CONTACT	Phosphor bronze C5191, 5u" gold plated on contact area, G/F on solder tails, under plating Nickel over all
3	KAPTON	PI

RATING

Rated Current	7A
Rated Voltage	30V
Operating Temperature	-40°C to 105°C
Storage Temperature	-40°C to 105°C
Durability	4,000 Cycles

GENERAL

Item	Requirement	Test Condition
Examination of product	Meets requirements of product drawing and Specification	Visual inspection No physical damage



ELECTRICAL

Item	Requirement	Test Condition
Contact Resistance	40mΩ max. after test 60mΩ max.	EIA-364-23C
Insulation Resistance	1000m min. at 500VDC/ 2 minute	EIA-364-21C
Dielectric Withstanding Voltage	No breakdown at 500V RMS	EIA-364-20D, Method B

MECHANICAL

Item	Requirement	Test Condition
Durability	4,000 cycles	Speed 25±3mm/ minute Temperature 23°C± 3°C Humidity 40%~60%
Mating Force	400g max. per pin	Speed 25±3mm/minute
Un-mating Force	35g min. per pin	Speed 25±3mm/minute
Contact Retention Force	300g min. per pin	Speed 25±3mm/minute

ENVIRONMENTAL

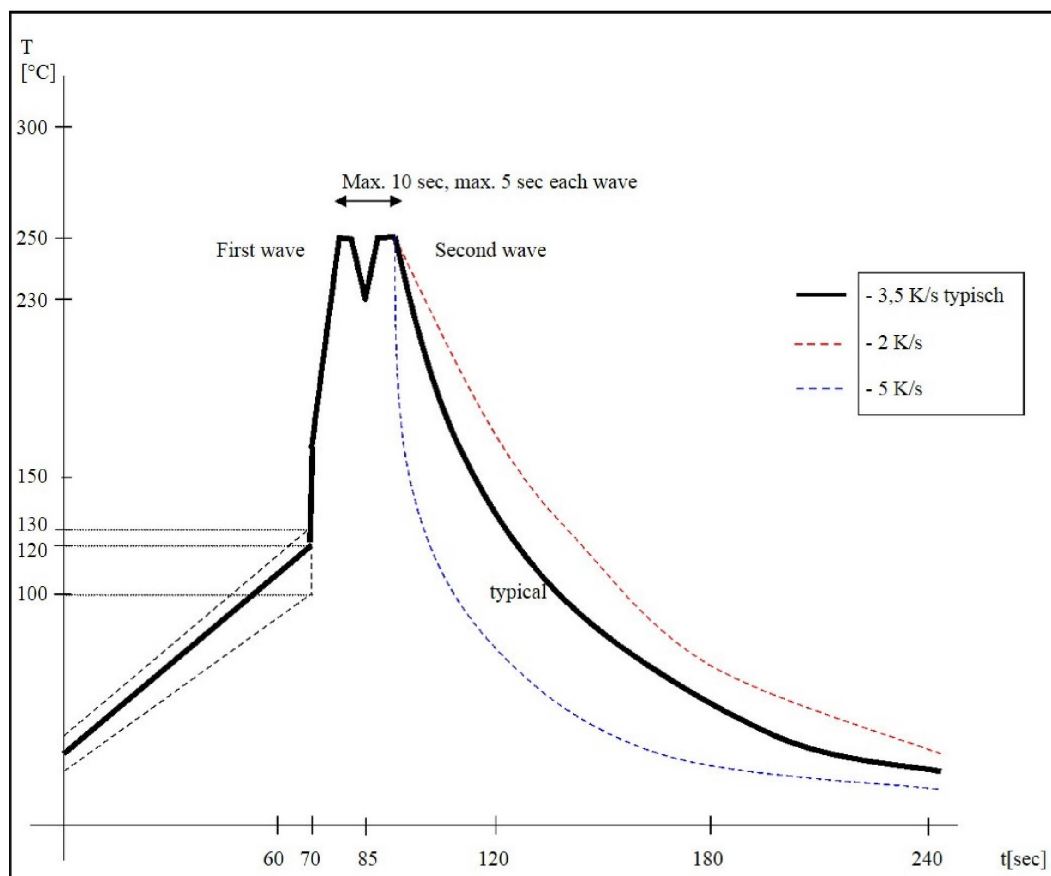
Item	Requirement	Test Condition
Humidity	Meets requirements of product drawing and electrical specification.	EIA-364-31B, Method II, Condition A
Salt spray		Temperature 35°C± 2°C Density of salt water 5±1% Duration 4 hours ±15 minute
Cold		The connector housing shall be store at temperature of -40°C±3°C for 48 hours
Dry heat		The connector housing shall be store at temperature of 105°C±2°C for 96 hours

SOLDER ABILITY

Item	Requirement	Test Condition
Solder ability	The test area shall be covered more than 95% of immersed area with flash solder	Solder Temperature 245°C±5°C Immersion period 5 second
Resistance to soldering heat	1. Without deformation of case or excessive loosen. 2. Electrical characteristics shall be satisfied	Place the connector on the P.C. Board, then immerse the solder pin up to the surface of the board in the solder bath at 260°C±5°C for 5 second. (included 245°C±5°C for 10 second)



Wave Soldering Profile



Preheating temperature: 25 ~ 140 $^{\circ}\text{C}$

Preheat Time: 80 seconds

Solder temperature: 260 $^{\circ}\text{C} \pm 5^{\circ}\text{C}$

Solder Immersion Time:

Single Wave Simulation 5 $\pm$ 1 seconds

Dual Wave Simulation First Wave 5 $\pm$ 1 seconds, Second Wave 5 $\pm$ 1 seconds