

SPECIFICATION AND PERFORMANCE

Series	303D-L186&236	File	303D-L186&236_SPEC_1	Date	2025/07/03
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Scope:

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

P/N	DESCRIPTION
303D-L186F020	Pogo Pin Magnetic Connector, 2 Pin Female, Waterproof IP67
303D-L186M020	Pogo Pin Magnetic Connector, 2 Pin Male, Waterproof IP67
303D-L236F040	Pogo Pin Magnetic Connector, 4 Pin Female, Waterproof IP67
303D-L236M040	Pogo Pin Magnetic Connector, 4 Pin Male, Waterproof IP67

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	Contact	Brass C6081, 10u" min. gold plating over 50-120u" min. nickel plating
2	Housing	Nylon PA9T, UL94V-0, black
3	Magnet	N52, $\Phi 3 \times 4.0$, 200u" min. nickel plating, $3600 \pm 10\%$ GS

RATING	
Rated Voltage	5V
Rated Current	3A
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C



ELECTRICAL

Item	Requirement	Test Condition
Contact Resistance	50mΩ Max	Voltage drop system four-wire system with below 300mA EIA-364 23
Dielectric Withstanding Voltage	No breakdown at 500VDC /1minute	EIA 364-20
Insulation Resistance	100MΩ Min. at 500VDC /2 minute	EIA 364-21

MECHANICAL

Item	Requirement	Test Condition
Pin Strength	No appearance damage	Apply 9.8N static load on the plunger in direction for 1 minute.
Pin Pulling Off Force	No appearance damage	Apply 4.9N static load on the pin in axis direction for 1 minute.

ENVIRONMENTAL

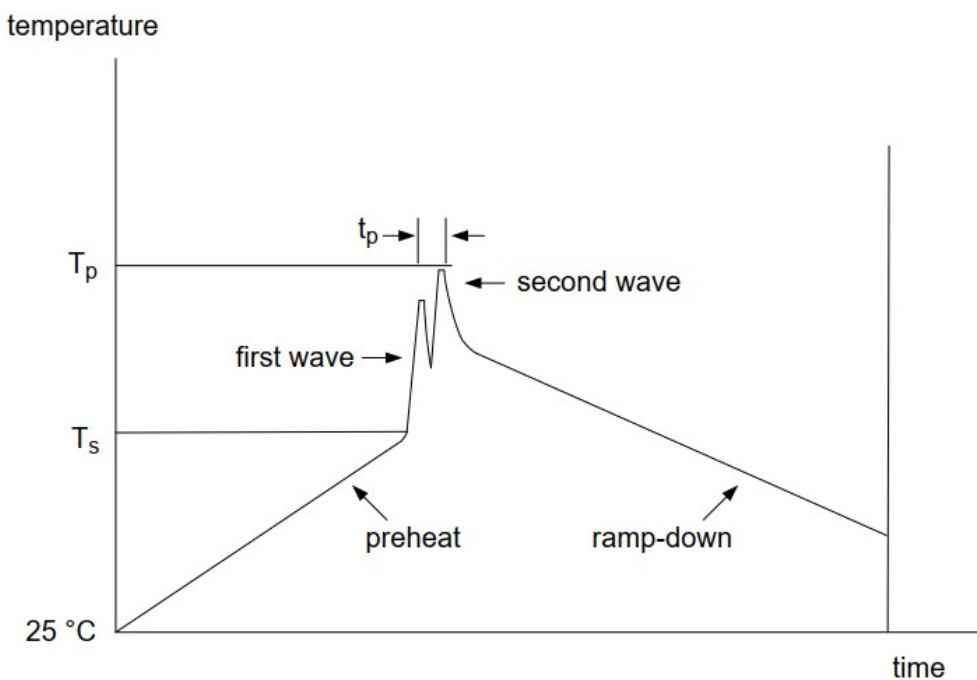
Item	Requirement	Test Condition
Humidity (Steady state)	Meets requirements of product drawing and electrical specification.	EIA-364-31B method II Condition A
Salt spray	Meets requirements of product drawing and electrical specification.	Temperature : 35±2°C Density of salt water : 5±1% Duration : 4 hours ± 15min.
Cold resistance	Meets requirements of product drawing and electrical specification.	The connector housing shall be store at temperature of -40±3°C for 48 hours
Dry heat	Meets requirements of product drawing and electrical specification.	The connector housing shall be store at temperature of 85±2°C for 96 hours



IP degree of protection	IPX7	IEC 60529 Sample condition: mated Put the testing sample under water 1m, duration 30 minutes
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SOLDER ABILITY		
Item	Requirement	Test Condition
Hand Soldering	Without deformation of case or excessive loosen.	Solder Temperature: $260 \pm 20^{\circ}\text{C}$ Time: 3 sec

Wave Soldering Profile



Preheating temperature: 25 ~ 140°C

Preheat Time: 80 seconds

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

Solder Immersion Time: Single Wave Simulation 5 ± 1 seconds

Dual Wave Simulation First Wave - 5 ± 1 seconds Second Wave - 5 ± 1 seconds