

1. Scope:

1.1 Contents

This specification covers the requirements for product performance, test methods and quality assurance provisions 025 LOW PROFILE Connector (Cap, Assemble) are used in TOYOTA MOTOR CORPORATION.

Applicable product description and part numbers are as shown in Appendix 1.

2. Applicable Documents:

The following documents form a part of this specification to the extent specified herein. In the event of conflict between the requirements of this specification and the product drawing, the product drawing shall take precedence. In the event of conflict between the requirements of this specification and the referenced documents, this specification shall take precedence.

2.1 AMP Specifications:

- A. 109-5000 Test Specification, General Requirements for Test Methods
- B. 501-5482 Test Report

2.2 Commercial Standards and Specification:

- A. JASO D605 Multi-pole Connector for Automobiles
- B. JASO D7101 Test Methods for Plastic Molded Parts
- C. MIL-STD-202 Testing Method 208: Method of Soldering

3. Requirements:

3.1 Design and Construction:

Product shall be of the design, construction and physical dimensions specified on the applicable product drawing.

3.2 Materials:

A. Contact:

Description	Material	Finish
Tab (Male)	Brass	Selective Gold or Tin plated (With a nickel substrate) or Pre-Tinned

Fig.1

B. Housing : SPS

3.3 Ratings:

A. Voltage Rating: 12V DC

B. Temperature Rating: -30°C ~ 105°C

3.4 Performance Requirements and Test Descriptions:

The product shall be designed to meet the electrical, mechanical and performance requirements specified in Fig.2.

All tests shall be performed in the room temperature, unless otherwise specified.

3.5 Test Requirements and Procedures Summary:

Par.	Test Items	Requirements	Procedures
3.5.1	Confirmation of Product	Meets requirements of product drawing	Visually, dimensionally and functionally inspected per applicable quality inspection plan. Frontage size TOYOTA Part No. KANGO-12404, KANGO-12422, KANGO-12388
Electrical Requirements			
3.5.2	Dielectric Withstanding Voltage	No creeping discharge or flashover shall occur.	Impressed voltage 1kVAC for 1 min Fig.3 AMP Spec 109-5301
3.5.3	Insulation Resistance	100M Ω Min.	Impressed voltage 500VDC Fig.3 AMP Spec 109-5302
Mechanical Requirements			
3.5.4	Fasting Torque for Screw	No cracks and compression bucklings of housing permissible	Operation torque value on customer drawing.
3.5.5	Solderability	Wet Solder Coverage : (Tin Plated area only) 95 % Min. (with substrate area) 50% Min. (without substrate area)	Solder bath : Sn-40Pb Solder Temperature :235 \pm 5 $^{\circ}$ C Immersion Duration :5 \pm 0.5sec. Flux : Alpha100 AMP Spec.109-5203
			For Matte Tin plating only Solder bath : Sn-3Ag-0.5Cu Solder Temperature :250 \pm 5 $^{\circ}$ C Immersion Duration :5 \pm 0.5sec. Flux : ULF-300R

Fig.2

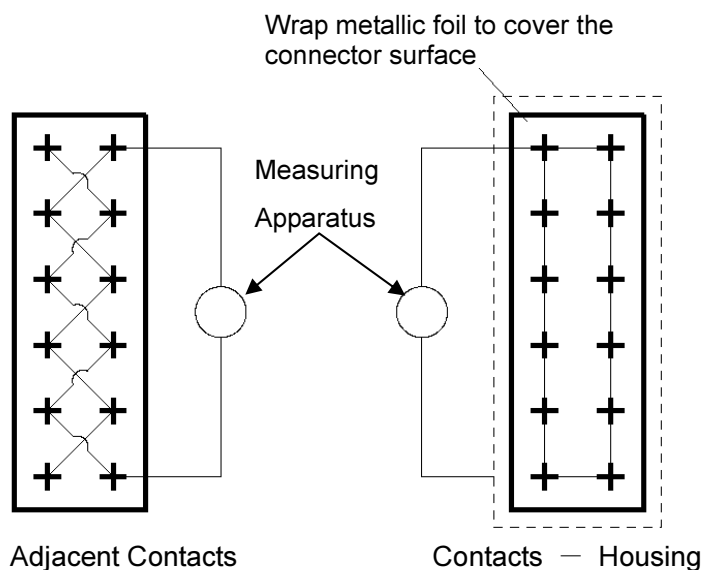


Fig.3

Product Part No.* ¹	Description
1612048	025 low profile CONNECTOR 24POS. CAP ASSY (MALE CONNECTOR)
1612050	025 low profile CONNECTOR 32POS. CAP ASSY (MALE CONNECTOR)
1612052	025 low profile CONNECTOR 40POS. CAP ASSY (MALE CONNECTOR)

Appendix.1

*¹Note: Part number is consisted from listed base number and 1 digit numeric prefix and suffix with dash. Refer to catalog or customer drawing for specific part numbers for each base number. When prefix is zero, zero and dash are omitted.

Plug Housing To Be Mated : SUMITOMO WIRING SYSTEMS CO.LTD.

TOYOTA Part No.* ²	Description
90980-12404	0.64 II CONNECTOR (low profile type) 24POS. PLUG ASSY (FEMALE CONNECTOR)
90980-12422	0.64 II CONNECTOR (low profile type) 32 POS. PLUG ASSY (FEMALE CONNECTOR)
90980-12388	0.64 II CONNECTOR (low profile type) 40POS. PLUG ASSY (FEMALE CONNECTOR)

Appendix.2

*²Note : Inquire the applicable manufacturer about 0.64 II low profile female connector & contact.