

## APPLICATION SPECIFICATION FOR MINI-FIT BACKSHELL

### 1.0 SCOPE

This application Specification covers the requirements for the application of Mini-Fit Backshell. This Mini-Fit Backshell is used for Mini-Fit plug and receptacle housings of Wire-To-Wire, 4.20mm pitch dual row connector series using brass with Tin plating terminated of 18 to 22 AWG wire using Molex crimp technology. The Backshell is intended to use increase in the strain relief produced in the wire during assembly and to reduce the power loss in Mini-Fit connector system.

### 2.0 PRODUCT DESCRIPTION

#### 2.1 NAMES AND SERIES NUMBER(S)

| WIRE-TO-WIRE                         |               |          |            |            |
|--------------------------------------|---------------|----------|------------|------------|
| Description                          | Series Number | UL (600) | CSA (600V) | IEC (250V) |
| Mini-Fit TPA2, Female Crimp Terminal | 5556          | N/A      | N/A        | N/A        |
| Mini-Fit Jr. Receptacle Housing      | 5557          | Yes      | Yes        | Yes        |
| Mini-Fit Jr. Plug Housing            | 5559          | Yes      | Yes        | Yes        |
| Mini-Fit TPA2, Male Crimp Terminal   | 5558          | N/A      | N/A        | N/A        |
| Mini-Fit Plug / Receptacle Backshell | 204723        | N/A      | N/A        | N/A        |

#### 2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

See the appropriate sales drawings for the information on dimensions, materials, platings and Markings.

### 3.0 REFERENCE DOCUMENTS AND SPECIFICATIONS

|  |               |
|--|---------------|
| Product Specification.....                                 | PS-5556-001   |
| Receptacle Crimp Terminal Sales drawing.....               | 55560000-SD   |
| Receptacle Housing Sales drawing.....                      | SD-5557-003   |
| Plug Crimp Terminal Sales drawing.....                     | SD-5558****   |
| Plug Housing sales drawing.....                            | 55590001-SD   |
| Back shell (Plug/ Receptacle) Sales drawing.....           | 2047230000-SD |
| Technical Advisory Moisturizing Nylon Connector Parts..... | AS-45499-001  |



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| DOCUMENT NUMBER:<br><b>2047230000-AS</b> | DOC TYPE:<br><b>PS</b>  | DOC PART:<br><b>000</b>                              | CREATED / REVISED BY:<br><b>GJEEVANSURES</b> | CHECKED BY:<br><b>SCS02</b> | APPROVED BY:<br><b>ISHWARG</b> |

## 4.0 PROCEDURE

### 4.1 GENERAL APPLICATION NOTES

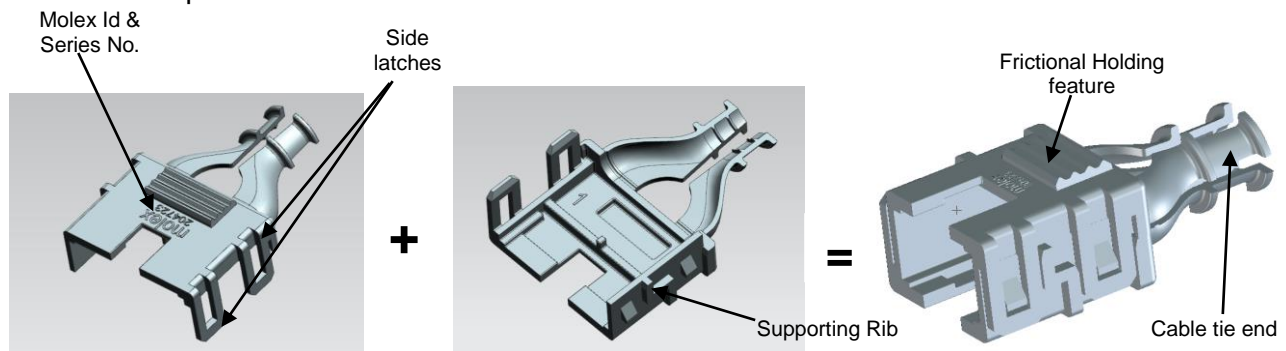
#### 4.1.1 APPEARANCE:

- Parts conform to class "B" requirements of cosmetic specification PS-45499-002 except where noted on the sales drawings.

### 4.2 ASSEMBLY INSTRUCTIONS

#### 4.2.1 Mini-Fit Hermaphroditic Backshell

- The Backshell is designed for cable strain relief and must be used with a cable tie. It can be used directly with wire bundle or wire bundle sheathing. An assembly requires use of 2 backshell.
- Backshell not designed for re-use. If backshells are un-assembled for any reason then replace both backshells with new backshells.



- The same Backshell (part number) is used with Mini-Fit Plug (5557) as well as Receptacle housing (5559) to ensure the increase in strain relief produced in the wires of plug and receptacle housings.



Mini-Fit plug Hosing assembled with backshell



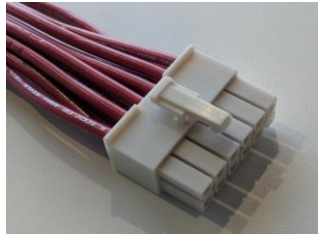
Mini-Fit Receptacle Hosing assembled with backshell

PRE-RELEASED  
REFERENCE  
USE ONLY

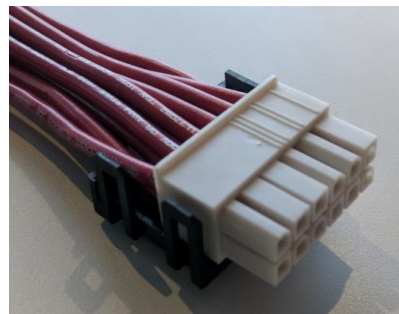
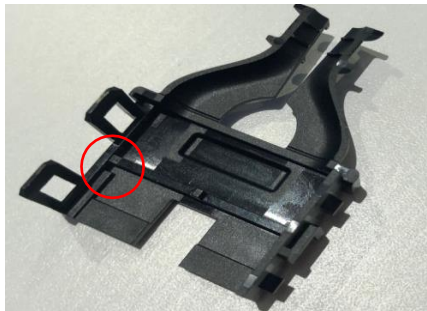
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### 4.2.3 Mini-Fit Back shell Assembly

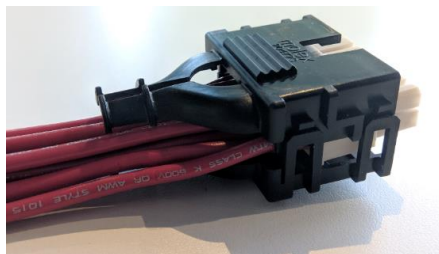
1. Insert crimped terminals into Mini-Fit plug (5559) or receptacle Housing (5557).



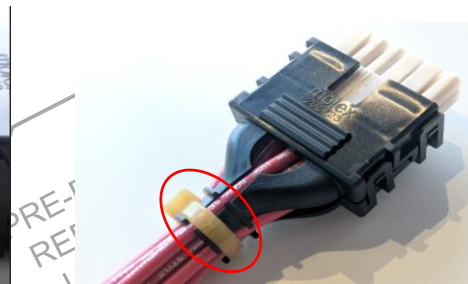
2. Place loaded housing, thumb latch down, into backshell cavity. The latch fits into rectangular opening in backshell. Use the guiding slots in backshell for location of plug and receptacle housing.



3. Place second backshell on the top and press to lock the assembly



4. Wrap cable tie inside and around cable tie area and secure.



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Note: Molex Cable Tie tool is used to tighten cable tie. For ordering information refer to part number 19294-0002 shown below.

**Part Number: 19294-0002**

Economy Cable Tie Tool



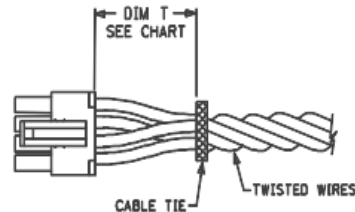
Series image - Reference only

## 5.0 PACKAGING

Parts shall be packaged to protect against damage during handling, transit and storage. Nylon parts should remain in their original packaging until ready for use. Refer to Molex specification AS-45499-001 for moisturizing nylon connector parts.

## 6.0 MINIMUM WIRE BEND, CABLE TIE OR TWIST LOCATION

| Circuit Sizes | Dim T Min.       |
|---------------|------------------|
| 2             | .50" (12.7 mm)   |
| 4-6           | .75" (19.1 mm)   |
| 8             | 1.00" (25.4 mm)  |
| 10-12         | 1.25" (31.75 mm) |



- The "T" dimension defines a "free" length of wire, or a length of wire that is not subject to significant bias by external factors such as a wire tie, wire twisting, or other means of bending or deforming of the wires that repositions them from their natural relaxed state or location where they enter the housing. This dimension is a general recommendation and may need to be adjusted for different wire gauges and wire type and insulation thickness and insulation material.
- Wires are to be dressed in such a manner to allow the terminal to float freely in the receptacle Pocket.



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