

114-5019

Application Specification
Crimping Bulkhead Connector Contacts

1. Scope:

This specification covers the crimping requirements for the Bulkhead Connector 2 mm Dia. Pins and Pin Receptacle Contacts.

2. Applicable Contacts:

| Description | Part Number | Remark |
|--------------------------|--------------------|-------------|
| 2 mm Dia. Pin Receptacle | 170099-2, 170139-1 | Strip Form |
| | 170112-1 | Loose Piece |
| 2 mm Dia. Pin | 170100-2, 170138-1 | Strip Form |
| | 170113-1 | Loose Piece |

3. Nomenclature:

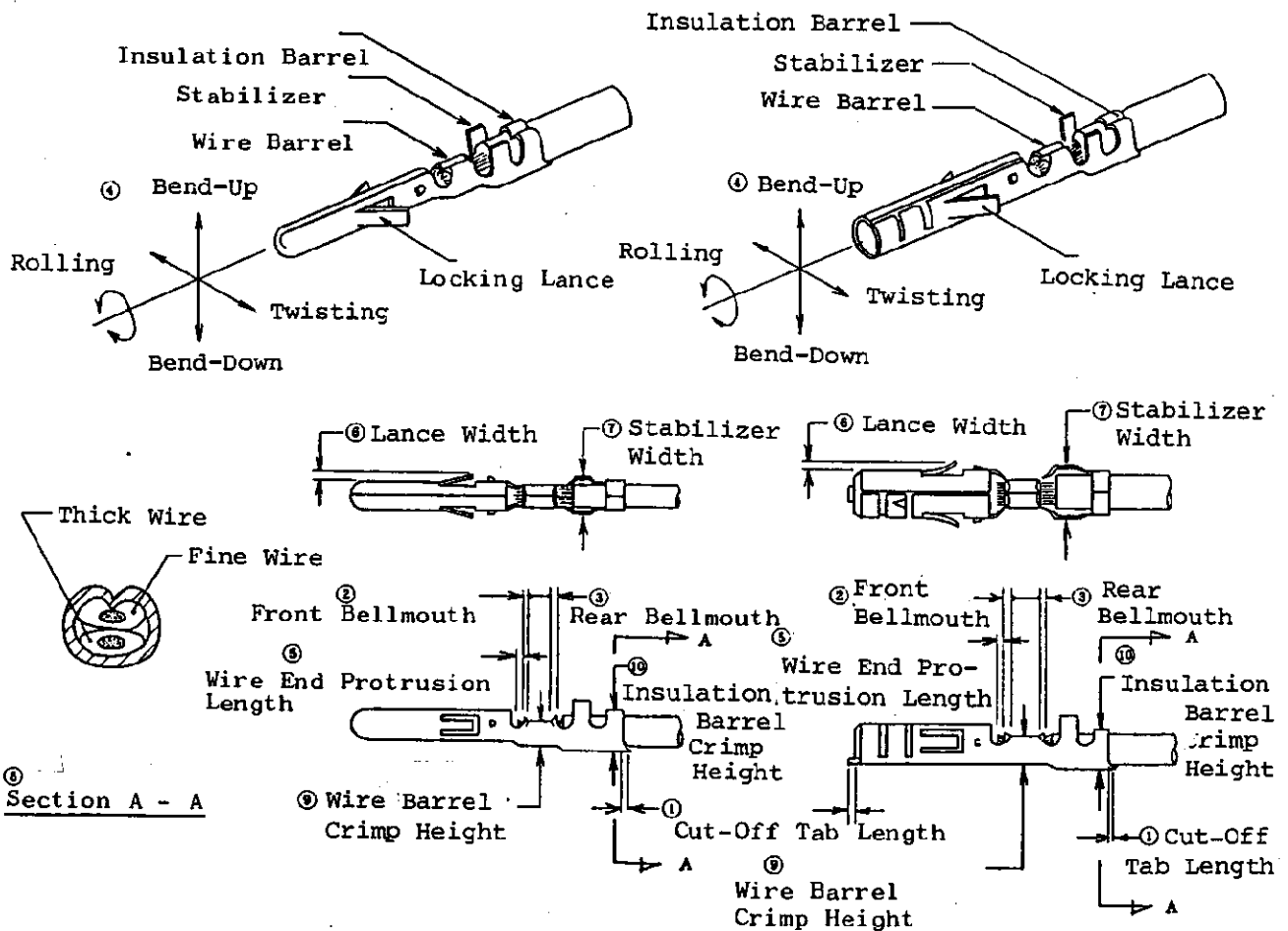


Fig. 1

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| | | | | | | | |
|-----------------------|--------------------|---------|--------|-------------------|--------------------------------------|-------------|-------|
| DR | <i>[Signature]</i> | 9/26/86 | | AMP (Japan), Ltd. | | NO 114-5019 | REV A |
| CHK | <i>[Signature]</i> | 9/26/86 | | TOKYO, JAPAN | | | |
| APP | <i>[Signature]</i> | 9/26/86 | | LOC JA | | | |
| A Revised per RFA-410 | | | SHEET | | Application Specification | | |
| 0 Superseded 108-5047 | | | 1 OF 3 | | Crimping Bulkhead Connector Contacts | | |
| LTR | REVISION RECORD | DR | CHK | DATE | | | |

4. Crimping Requirements and Crimp Data:
 4.1 Crimping Requirements:

| No. | Checking items | | Required Limits | | Remarks |
|-----|--|-----------|----------------------------------|--------------------------|-----------|
| | | | Applicator | Hand Tools | |
| 1 | Cut-off Tab Length | | 0.5 mm max. | | Fig. 1- 1 |
| 2 | Length of Front Bellmouth | | 0.25 mm max | To be visu-ally observed | Fig. 1- 2 |
| 3 | Length of Rear Bellmouth | | 0.13 to 0.64 mm | | Fig. 1- 3 |
| 4 | Allow-able Limit of Crimped Deforma-tion | Bend-Up | 3° max. | | Fig. 1- 4 |
| | | Bend-Down | 3° max | | |
| | | Twisting | 3° max | | |
| | | Rolling | 8° max | | |
| 5 | Wire End Protrusion Length | | 0 to 1.5 mm | | Fig. 1- 5 |
| 6 | Lance Width | | 0.45 to 1.0 mm | | Fig. 1- 6 |
| 7 | Stabilizer Width | | 3.6 to 4.0 mm | | Fig. 1- 7 |
| 8 | Two-Wire Crimp | | Crimped with the thin wire lower | | Fig. 1- 8 |
| 9 | Insulation Stripping Length | | 4 to 5 mm | | |

4.2 Crimp Data:
 4.2.1 Applicators:

| Contact Part Number (Applicator Part Number) | Wire size (Nominal) | Wire Barrel Crimp | | | Insulation Barrel Crimp | | | Crimp Tensile Strength (kg) | |
|---|-------------------------|-------------------|-------------------|----------------|-------------------------|--------------------|----------------------------|-----------------------------|---------|
| | | Width | Height (Fig.1- 9) | Letter of Disk | Width | Height (Fig.1- 10) | Letter of Disk (Reference) | | |
| 170099-2 (721324-3, 721324-4) | 170100-2 | 2.3 "F" | 0.5 | 1.22 | D | 3.30 "F" | 4.1 Max. | 4 | 9 min. |
| | (721323-3, 721323-4) | | 0.85 | 1.35 | C | | | 4 | 13 min. |
| | 1.25 | | 1.50 | B | 4 | | | 18 min. | |
| | 2 | | 1.78 | A | 4 | | | 27 min. | |
| | 0.5 +0.5 | | 1.50 | B | 2 | | | 9 min. | |
| | 0.5 +0.85 | | 1.50 | B | 2 | | | 9 min. | |
| | 0.5 +1.25 | | 1.78 | A | 2 | | | 9 min. | |
| | 0.85+0.85 | | 1.78 | A | 2 | | | 13 min. | |
| | 0.85+1.25 | | 1.78 | A | 3 | | | 13 min. | |
| 70139-1 (721333-1, 721333-2) | 170138 | 2.03 "F" | 0.3 | 1.07 | C | 3.30 "F" | 4.1 Max. | 8 | 5 min. |
| (721334-1, 721334-2) | 0.5 | | 1.13 | B | 7 | | | 9 min. | |
| 0.85 | 1.22 | | A | 7 | 13 min. | | | | |

Notes:

1. Tolerances of wire barrel heights must be within ±0.05.
2. The values not specified for the units are in millimeters.

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4.2.2 Hand Tools:

| Contact Part Number | Wire Size (Nominal) | Hand Tool Part Number | Diameter of Wire Insulation | Crimp Symbol | Wire Barrel Height | | Crimp Tensile Strength |
|----------------------|---------------------|-----------------------|-----------------------------|--------------|--------------------|-------------------|------------------------|
| | | | | | Hand Tool Size | Control Gauge No. | |
| 170112-1 170113-1 | 0.5 | 270758-2 | 2.1 ~ 3.4 | 20-18 | 1.27 | 289901-265 | 7 min. |
| | 0.85 | | | | | | 11 min. |
| | 1.25 | | | 16-14 | 1.65 | 289901-266 | 16 min. |
| | 2 | | | | | | 23 min. |
| | 0.5 + 0.5 | | | 16-14 | 1.65 | 289901-266 | 7 min. |
| | 0.5 + 0.85 | | | | | | 7 min. |

5. Applicable Wires:

| Wire Size | Strand Composition (mm) Number of Standards / Diameter of a Conductor | Calculated Cross-sectional Area (mm ²) | Insulation Diameter | Applicable Specifications |
|-----------|---|--|---------------------|--|
| 0.3 | 12 / 0.18 | 0.31 | 1.5 standard | JCS 246 Vinyl Cables for Communication Equipment |
| 0.3 | 7 / 0.26 | 0.37 | 1.6 or 1.8 standard | (Low voltage cables for automobiles) |
| 0.5 | 7 / 0.32 | 0.56 | 2.2 standard | JIS C 3406 Low Voltage cables for Automobiles |
| 0.85 | 11 / 0.32 | 0.88 | 2.4 standard | |
| 1.25 | 16 / 0.32 | 1.29 | 2.7 standard | |
| 2 | 26 / 0.32 | 2.09 | 3.1 standard | |

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