

Application Specification

114 - 5123

Crimping .187 Series, Tab and Receptacle Contacts

1. Scope:

This specification covers the requirements for crimping .187 Series, tab and receptacle contacts for non water-splash protection type, wire-to-wire terminating applications.


2. Applicable Contact Part Numbers:

| Descriptions | Part Nos. (Strip Form) |
|--------------|------------------------|
| Tab | 175044, 175046, 175048 |
| Receptacle | 175038, 175040, 175042 |

3. Crimping Conditions:

| No. | Check Items | Applicable Part Nos. | Crimping Conditions | | Remarks |
|-----|-----------------------------|----------------------|-----------------------------|----------------------------|------------|
| | | | 175044 175046 175048 | 175038 175040 175042 | |
| 1 | Cut-Off Tab Length | | 0.5 mm max. | | Fig. 1 (1) |
| 2 | Bellmouth | Front | 0.5 mm max. | | Fig. 1 (2) |
| | | Rear | 0.15 ~ 0.65 mm | | |
| 3 | Deformation after Crimping | Bend - Up | 3° max. | 3° max. (See Note 1.) | Fig. 2 |
| | | Bend - Down | 3° max. | 3° max. (See Note 1.) | |
| | | Twisting | 5° max. | 5° max. | |
| | | Rolling | 5° max. | 5° max. | |
| 4 | Wire End Protrusion Length | | 0~1.5 mm | | Fig. 1 (4) |
| 5 | Insulation Stripping Length | | 5 mm (See Note 1.) | | |
| 6 | Wire Barrel Seam | | Seam must be neatly closed. | | Fig. 1 (5) |

Note 1. Bend-up and bend-down shall be measured by the manner as shown in Fig. 2. Insulation stripping length is given for reference only. When to change crimping contact type (i.e. from tab to receptacle or vice versa), applicator feed length must be properly adjusted.

| | | | | | | | | | | | | | |
|-------|-----------------|----|-------------------|------|---|------|-------------|---------|------|-------|-------|----------------|--------|
| PRINT | DST. | O | Released RFA-1449 | X7 | 5/1/91 | DR. | Y. Fujiwara | SHEET 1 | OF 4 | LOC J | NO. A | NO. 114 - 5123 | REV. 0 |
| | | | | | | CHK. | | | | | | | |
| LTR | REVISION RECORD | DR | CHK | DATE |  | | | | | | | | |

NUMBER: 114 - 5123
 Customer Release
 SECURITY CLASSIFICATION:

NUMBER: 114 - 5123

CUSTOMER RELEASE

SECURITY CLASSIFICATION:

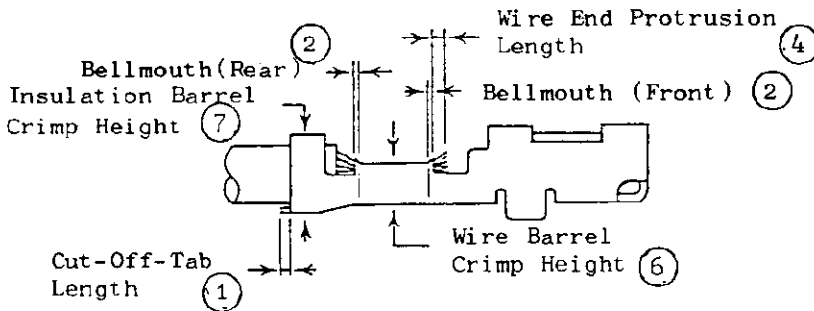
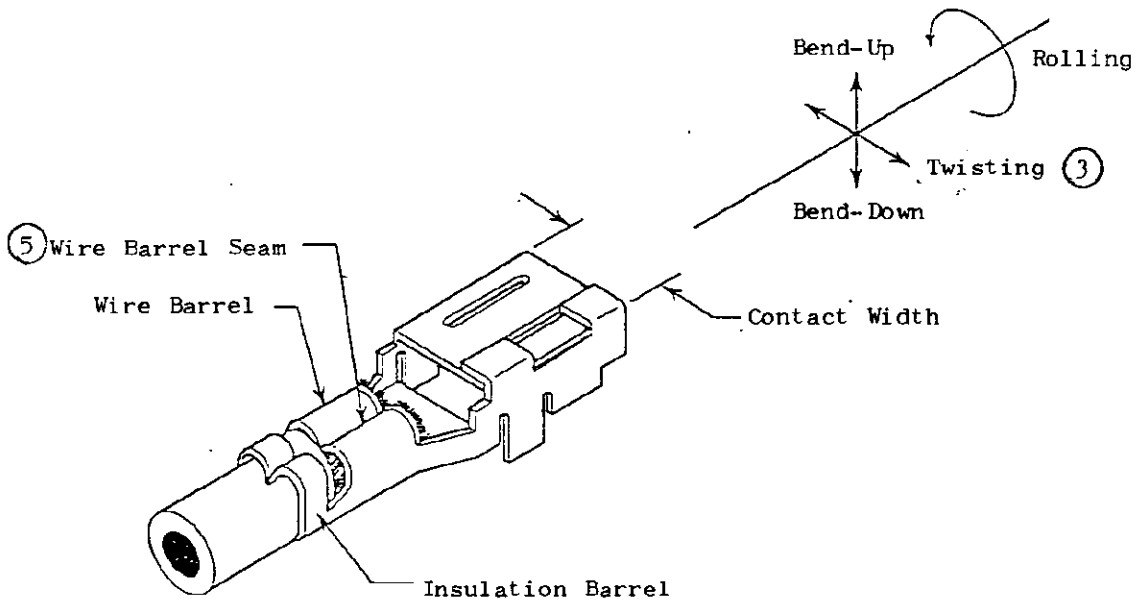
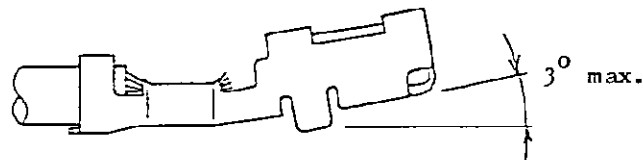
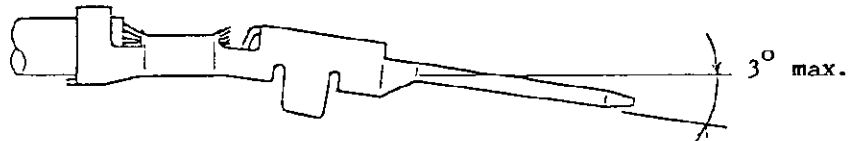


Fig. Nomenclature of Crimped Contact



Example 1: Bend-Up of Receptacle Contact



Example 2: Bend-Down of Tab Contact

Fig. 2 Measurement of Bend-Up and Bend-Down of Contacts

| | | | | | |
|---|------------|-----|-----|--------------------------------------|--------|
| SHEET | AMP | | | AMP (Japan), Ltd. Kawasaki, Japan | |
| | 2 OF 4 | LOC | LOC | NO 114 - 5123 | REV. 0 |
| NAME Application Specification Crimping .187 Series Tab and Receptacle Contacts | | | | | |

NUMBER: 114 - 5123

CUSTOMER
ReleaseSECURITY
CLASSIFICATION:

4. Crimp Data:

4.1 Applicator Crimp:

| Contact Part Nos. Strip Form | Applicator Numbers | Wire Size (nominal mm ² (AWG)) | Wire Barrel Crimp | | | Insulation Barrel Crimp | | Crimp Tensile Strength (kg)min. |
|---------------------------------|--------------------|--|-------------------|---------------------------|------------|-------------------------|---------------------------|------------------------------------|
| | | | Width (mm) | Height (mm) Fig. 1 (6) | Disc. Ltr. | Width (mm) | Height (mm) Fig. 1 (7) | |
| 175044 175038 | 908987-2 | 0.3 (#22) | 2.29 | 1.23 | B | 3.05 | 3.9 (MAX) | 8 |
| | | 0.5 (#20) | | 1.29 | A | | | 9 |
| 175045 175040 | 908988-2 | 0.5 (#20) | 2.54 | 1.40 | C | 3.56 | 3.9 (MAX) | 9 |
| | | 0.85 (#18) | | 1.51 | B | | | 13 |
| | | 1.25 (#16) | | 1.64 | A | | | 18 |
| 175043 175042 | 908989-2 | 2.0 (#14) | 3.30 | 1.94 | B | 4.57 | 3.9 (MAX) | 27 |
| | | 3.0 (#12) | | 2.24 | A | | | 30 |

Notes:

- (1) The tolerance to the wire barrel crimp height to be within ± 0.05 mm.
- (2) Crimp tensile strength includes the holding strength of insulation barrel grip.
- (3) The insulation barrel crimp height is given for the reference only.

SHEET

AMPAMP (Japan), Ltd.
Kawasaki, Japan

3 OF 4

LOC

LOC

NO.

114 - 5123

REV.

0

NAME Application Specification
Crimping .187 Series, Tab and
Receptacle Contacts

5. Applicable Wires:

| Wire Size (Nominal) mm ² (AWG) | No. of Con- / Dia. of a ductors / Conductor | | Calculated Cross- sectional Area (mm ²) | | Standard Finished Outer Diameter (mm) | | |
|---|--|---------|--|------|--|-----|------|
| | AV, AVS | AVSS | AV, AVS | AVSS | AV | AVS | AVSS |
| 0.3 (#22) | 7/0.26 | | 0.37 | | | 1.8 | 1.4 |
| 0.5 (#20) | 7/0.32 | | 0.56 | | 2.2 | 2 | 1.6 |
| 0.85 (#18) | 16/0.25 | 19/0.24 | 0.84 | 0.85 | | 2.2 | 1.8 |
| | 11/0.32 | | 0.88 | | 2.4 | 2.2 | |
| 1.25 (#16) | 16/0.32 | 19/0.29 | 1.29 | 1.25 | 2.7 | 2.5 | 2.1 |
| 2.0 (#14) | 26/0.32 | 37/0.26 | 2.09 | 1.96 | 3.1 | 2.9 | 2.6 |
| 3.0 (#12) | 41/0.32 | — | 3.29 | — | 3.8 | 3.6 | — |

114 - 5123

Customer
Release

CLASSIFICATION:

SHEET

AMPAMP (Japan), Ltd.
Kawasaki, Japan

4 OF 4

LOC

LOC

NO

114 - 5123

REV.

0

NAME Application Specification
Crimping .187 Series, Tab and
Receptacle Contacts