

FED. SUPPLY CLASS

5340

1. SCOPE

1.1 Scope. This specification establishes the performances requirements for one type of spring tension clip to support cylindrical electronic components.

2. APPLICABLE DOCUMENTS

2.1 Specifications, Standards, Publications, and Drawings. The following documents of the issue in effect on the date of initiation for bids shall form a part of this specification to the extent specified herein.

2.1.1 Industry Standards

2.1.1.1 ASTM Publications: Available from ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428

ASTM B 117 - Standard Practice for Operating Salt Spray (Fog) Apparatus

2.1.1.2 SAE Publications: Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096

ARP9013 - Statistical Product Acceptance Requirements

3. QUALIFICATION REQUIREMENTS

3.1 In addition to meeting the requirements of the applicable drawing, the clip shall meet the following requirements, tested in the sequence given:

3.1.1 Temperature. The clip shall be useable at temperatures from -85 °F to 560 °F for steel and to 450 °F for Beryllium copper. Cadmium plated steel clip shall be usable to 425 °F. Tin plated steel clips shall be usable from -40 °F to 350 °F. The high temperature shall be held for 15 minutes, then the low temperature shall be held for 15 minutes. The transition from high to low temperature shall take no more than 15 minutes. The clips must not show any distortion which substantially effects function and must show no signs of fracture.

3.1.2 Vibration. The clip shall be capable of retaining a component when subjected to a force of 15G acceleration at frequencies up to 2000 cycles per second. However, components having a diameter of 0.5 inches or larger will require axial support when the axis of the clip coincides with the plane of vibration. Harmonic motion during vibration testing shall produce 15G acceleration or measure 0.06 inches amplitude. Frequency shall be swept smoothly from 0 to 2000 cycles per second and back to 0 over a 15 minute period. Clips shall be rigidly mounted by their normal mounting means and retain the dummy component (ref. 3.1.4) throughout the vibration test.

3.1.3 Fatigue Life. Sample clips shall be subjected to a minimum 100 cycles of insertion and withdrawal of a dummy component, in the direction perpendicular to the axis of the clip. For this test, the clip shall be mounted with its base flat against mounting surface. The clip shall support the component with a holding grip of no less than 70 percent of initial grip.

3.1.4 Dummy Component. The dummy component shall be steel 0.28 pound per cubic inch, 125 microinch or better surface finish, and a nominal diameter for which the clip is designed.

3.1.5 Salt Spray (Corrosion). Sample clips shall be tested in accordance with ASTM B 117 except duration shall be as specified in Table I. There shall be no evidence of corrosive attack of the base metal or blistering of plated surfaces.

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THIRD ANGLE PROJECTION	CUSTODIAN NATIONAL AEROSPACE STANDARDS COMMITTEE	REVISION 3
PROCUREMENT SPECIFICATION NONE	TITLE CLIP, SPRING TENSION	CLASSIFICATION SPECIFICATION NAS1463 SHEET 1 OF 3

AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC.
1000 WILSON BLVD.
ARLINGTON, VA 22209

THIS DRAWING SUPERSEDES ALL ANTECEDENT STANDARD DRAWINGS FOR THE SAME
PRODUCT AND SHALL BECOME EFFECTIVE NO LATER THAN SIX MONTHS FROM THE LAST
REVISION DATE.

FORM 09-01

REVISION DATE: AUGUST 26, 2011

ISSUE DATE: JULY 1960

TABLE I – Salt Spray Test Duration

Finish	Duration of Test
Cadmium Plating	96 Hours
Silver, Nickel	48 Hours
Tin	24 Hours
Zinc	96 Hours

3.1.6 Rejection. Failure of a sample clip to pass all the requirements of this document shall be a basis for rejection of the entire lot represented by the sample.

3.1.7 Sampling. Three sample units of each part number shall be selected from the lot for qualification testing.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for Inspection. The manufacturer is responsible for the performance of all inspection testing specified herein.

4.1.1 Test Equipment and Inspection Facilities. Except as otherwise specified, the supplier may utilize his own facilities or any commercial laboratory acceptable. Inspection records of the examination and tests shall be kept complete and available as specified in the contract or purchase order.

4.2 Classification of Inspection. The examination and testing of items covered by this specification shall be as follows:

- (a) Qualification Inspection (See 3.1)
- (b) Acceptance Inspection (See 4.4)

4.3 Qualification Inspection. Qualification Inspection shall consist of all of the tests required in Section 3.1.

4.3.1 Qualification Test Report. The Qualification Test Report shall be available to the buyer as specified in the contract or purchase order.

4.3.2 Requalification. If any of the manufacturing processes which can affect the end item are changed, the part numbers affected must be requalified and data recorded. The procuring activity may require a specific lot or part to be qualified based on history of the item.

4.4 Acceptance Inspection. Lot inspection shall consist of the tests below:

4.4.1 Visual and Mechanical Examination. Clips shall be examined to verify that the materials, design construction, physical dimensions, marking, and workmanship are in accordance with the specified standard drawing.

4.4.2 Inspection Lot. An inspection lot shall consist of parts produced under essentially the same conditions and offered for inspection at one time.

4.4.3 Rejected lots. (See 3.1.6).

4.4.4 Inspection Data. A certificate of Conformance shall be delivered with each shipment of parts.

4.4.5 Sampling. Sample in accordance with ARP9013, 97% IRR or higher, with a sample size according to Table II. No rejectable conditions permitted within sample; if one rejectable condition is found, the entire lot shall be rejected. Sample sizes are based on Isolated Lot Sampling Methods. Other sampling methods may be used in accordance with ARP9013 using the specified IRR.

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2



NAS1463

SHEET 2

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