
LED Holder, Type LH

1. SCOPE

1.1. Content

This specification covers performance, tests and quality requirements for the TE Connectivity Type LH LED holder for use with Philips Lumileds Luxeon H high voltage (100 and 200V) LEDs.

1.2. Qualification

When tests are performed on the subject product line, procedures specified in Figure 1 shall be used. All inspections shall be performed using the applicable inspection plan and product drawing.

2. APPLICABLE DOCUMENTS

The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the latest edition of the document applies. 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. Tyco Electronics Documents

- 114-32042: Application Specification
- 501-134008: Qualification Test Report

2.2. Industry Document

EIA-364: Electrical Connector/Socket Test Procedures Including Environmental Classifications

2.3. Reference Document

109-197: Test Specification (Tyco Electronics Test Specifications vs EIA and IEC Test Methods)

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

Materials used in the construction of this product shall be as specified on the applicable product drawing.

3.3. Ratings

- Temperature: -40 to 110°C

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3.4. Performance and Test Description

Product is designed to meet the electrical, mechanical and environmental performance requirements specified in Figure 1. Unless otherwise specified, all tests shall be performed at ambient environmental conditions.

3.5. Test Requirements and Procedures Summary

Test Description	Requirement	Procedure
Initial examination of product.	Meets requirements of product drawing and Application Specification 114-32042.	EIA-364-18. Visual and dimensional (C of C) inspection per product drawing.
Final examination of product.	Meets visual requirements.	EIA-364-18. Visual inspection.
MECHANICAL		
Clamp force.	7.0N minimum @ 0.05mm 14.5N minimum @ 0.20mm	EIA-364-13. Measure force necessary to lift LED off of heat sink at a maximum rate of 12.7 mm per minute. See Figure 3.
ENVIRONMENTAL		
Thermal shock.	See Note (a).	EIA-364-32, Test Condition I. Subject unmated specimens to 50 cycles between -40 and 110°C with 60 minute dwells at temperature extremes and 1 minute transition between temperatures.
Temperature life.	See Note (a).	EIA-364-17, Method A, Test Condition 4, Test Time Condition B. Subject mated specimens to 150°C for 700 hours.

NOTE (a): *Shall meet visual requirements, show no physical damage, and meet requirements of additional tests as specified in the Product Qualification and Requalification Test Sequence shown in Figure 2.*

Figure 1

3.6. Product Qualification and Requalification Test Sequence

Test or Examination	Test Group (b)			
	1	2		
	Test Sequence (c)			
Initial examination of product	1	1		
Clamp Force	2, 4	2,4		
Thermal shock		3		
Temperature life	3			
Final examination of product	5	5		

(b) See paragraph 4.1.A.

(c) Numbers indicate sequence in which tests are performed.

Figure 2

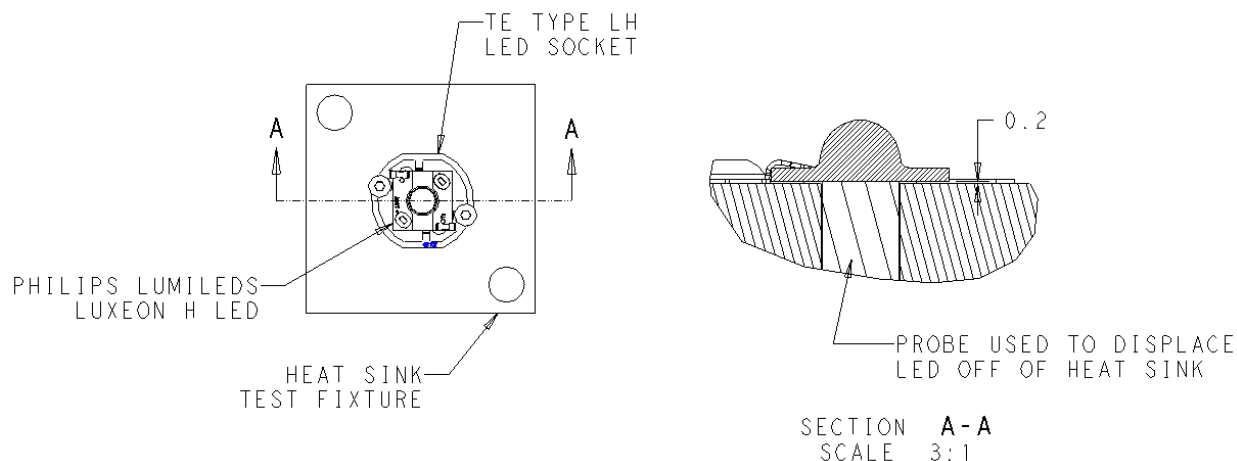


Figure 3

4. QUALITY ASSURANCE PROVISIONS

4.1. Qualification Testing

A. Specimen Selection

Specimens shall be prepared in accordance with applicable Instruction Sheets and shall be selected at random from current production. Test groups 1 and 2 shall consist of a minimum of 15 specimens.

B. Test Sequence

Qualification inspection shall be verified by testing specimens as specified in Figure 2.

4.2. Requalification Testing

If changes significantly affecting form, fit or function are made to the product or manufacturing process, product assurance shall coordinate requalification testing, consisting of all or part of the original testing sequence as determined by development/product, quality and reliability engineering.

4.3. Acceptance

Acceptance is based on verification that the product meets the requirements of Figure 1. Failures attributed to equipment, test setup or operator deficiencies shall not disqualify the product. If product failure occurs, corrective action shall be taken and specimens resubmitted for qualification. Testing to confirm corrective action is required before resubmittal.

4.4. Quality Conformance Inspection

The applicable quality inspection plan shall specify the sampling acceptable quality level to be used. Dimensional and functional requirements shall be in accordance with the applicable product drawing and this specification.