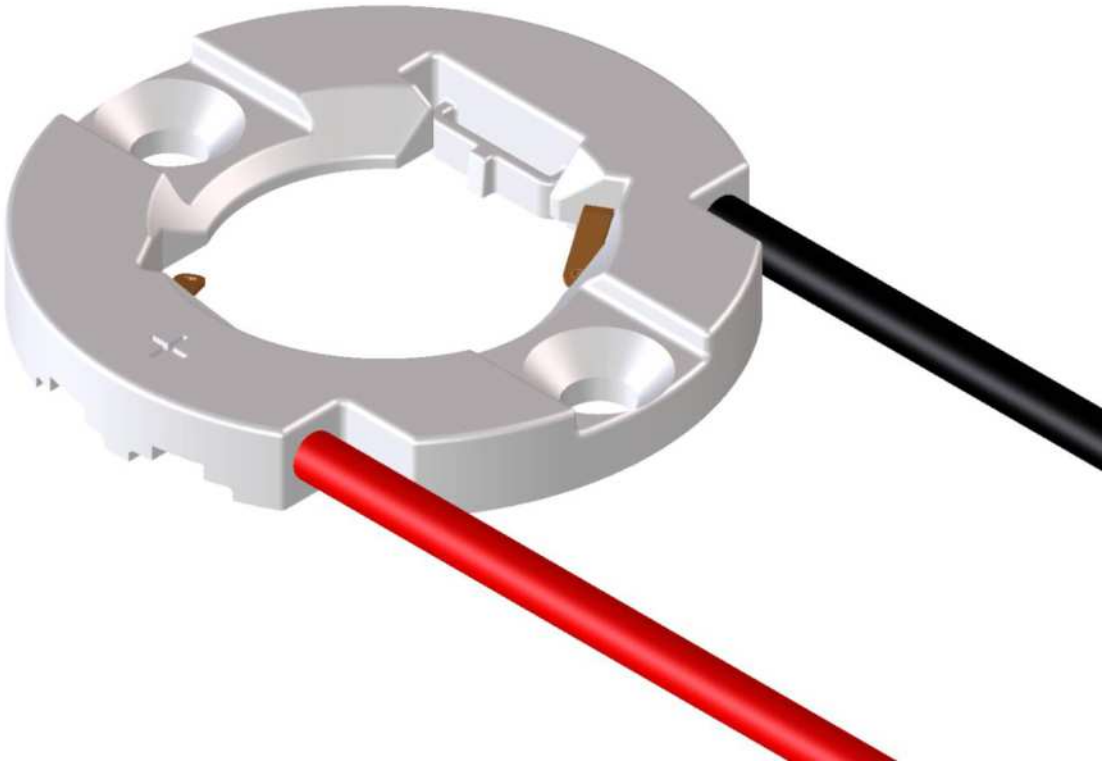
PRODUCT SPECIFICATION

MOLEX HOLDER FOR
13.35 MM X 13.35 MM Chip on Board (CoB) LED



REVISION:	ECR/ECN INFORMATION:	TITLE:	SHEET No.
A2	EC No: SSL2015-0024 DATE: 27 AUGUST 2015	PRODUCT SPECIFICATION MOLEX HOLDER FOR 13.35MM X 31.35MM COB	1 of 12

DOCUMENT NUMBER:	CREATED / REVISED BY:	CHECKED BY:	APPROVED BY:
PS-180555-001	MICHELLE DEVITO	G. MEYER	G. MEYER

1.0 SCOPE

The Molex Prewired LED Holder for the 13.35 mm X 13.35 mm CoB LED is an electrical connector and mechanical holder to simplify installation of the CoB LED without solder connections.

2.0 PRODUCT DESCRIPTION

2.1 MOLEX LED HOLDER PART NUMBERS

This specification covers the performance requirements and test methods for the following products listed by part numbers:

180555-0001	COB LED Holder Assembly for 13.35mm X 13.35mm Square COB (110mm White and Yellow Wire Leads)
180555-0002	COB LED Holder Assembly for 13.mm X 13.35mm Square COB (254mm Red and Black Wire Leads)

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

Dimensions: See sales drawing SD-180555-001
Material: RoHs compliant materials.

2.3 SAFETY AGENCY APPROVALS

UL File Number: TBD

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

Refer to the appropriate sales drawings, the website Molex.com and other sections of this specification for the necessary referenced documents and specifications.

3.1 AS-180555-001, Application Specification for 180555 Series Holder for 13.35 MM X 13.35 MM COB LED.
3.2 SD-180555-001, COB LED Holder Assembly for 13.mm X 13.35mm Square COB

4.0 RATINGS

4.1 VOLTAGE

300 Volts DC maximum

4.2 CURRENT

2.5 Amp maximum continuous current
3.0 Amp Maximum peak current (max. 10% duty Cycle)

4.3 TEMPERATURE

Operating: -40°C to +110°C
Non-operating: -40°C to +110°C

4.4 DURABILITY

5 cycles mate/un-mate

4.5 RATED TIME

40,000 hours

5.0 QUALIFICATION

Laboratory condition and sample selection are in accordance with EIA-364-1000.

6.0 PERFORMANCE

6.1 ELECTRICAL PERFORMANCE

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	Temperature Rise as per IEC 60838-2-2 Clause 11	LED holder is loaded for 1h with 1.25 rated current (1000 mA)	Temperature rise 45°C MAXIMUM
2	Moisture Resistance, insulation resistance and electrical strength as per IEC 60838-1 Clause 11	Pre and Post Humidity treatment with a relative humidity of 91-95% at a temperature of 25 ± 5°C for 48 hours.	Visual: No Damage & Insulation Resistance: 1 MW MINIMUM at 500VDC & Electric Strength: 500VAC with no flashover or breakdown
3	On/Off Cycling (5500 cycles total)	Cycling on/off from case temp high stable for 30 seconds, to stable at low temp for 30 seconds. (5500 cycles total)	Visual: No Damage & LLCR 20 milliohms MAX delta Case Temp 85C MAX

6.2 MECHANICAL PERFORMANCE

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
4	Wire Retention	Apply static load until wire separates from holder	20 N MIN
5	LED Retention Force	Apply static load until LED separates from holder	No damage which effects holder function

6.3 ENVIRONMENTAL PERFORMANCE

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
6	Temperature Life: EIA-364-17 Method A (without electrical load)	Treatment at 115C for 900hrs Total.	Visual: No Damage & LLCR 20 milliohms MAX delta & Case Temp 85C MAX
7	Thermal Shock as per EIA-364-32 Cyclic Temperature and Humidity as per EIA-364-31	Thermal Shock: -55 to +120 C 30 Minute Dwell 100 Cycles Cyclic Temperature and Humidity 25C/80%RH to 65C/50%RH 0.5 Hour Ramp 1.0 Hour Dwell 24 Cycles	Visual: No Damage & 20 milliohms MAX delta
8	Vibration EIA-364-28, test condition VII test condition letter D	Pre Treatment at 115C for 96 hours Vibration: 15 Minutes 3 Perpendicular Directions Random vibration profile 20 to 500 Hz Power Spectral Density 0.002 g2/Hz Overall 3.10 g rms	Visual: No Damage & LLCR 20 milliohms MAX delta

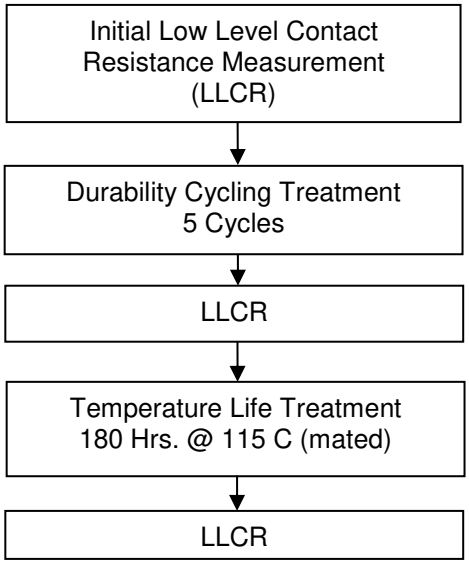
6.3 ENVIRONMENTAL PERFORMANCE (CONTINUED):

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
9	Temperature Life Preconditioning as per EIA-364-17 Method A Flowing Mixed Gas as per EIA-364-65 Class IIA Thermal disturbance EIA-364-1000.1	Pre Treatment at 115C for 96 hours: Method A (without electrical load) 384 hours @115C Flowing Mixed Gas: Class IIA 70% Relative Humidity 30 C Temperature 10 ppb Cl2, 200 ppb NO2, 10 ppb H2S, 100 ppb SO2 14 day exposure for 10 year field life (mated) Thermal disturbance EIA-364-1000.1 10 cycles 15C to 85C	Visual: No Damage & LLCR
10	Thermal Cycling Treatment: as per EIA-364-TS-1000.01	Temperature Life Preconditioning: 96 Hours at 115C (without electrical load) Thermal Cycling Treatment: +15/+85 C, 30 min. Dwell 500 Cycles	Visual: No Damage & LLCR

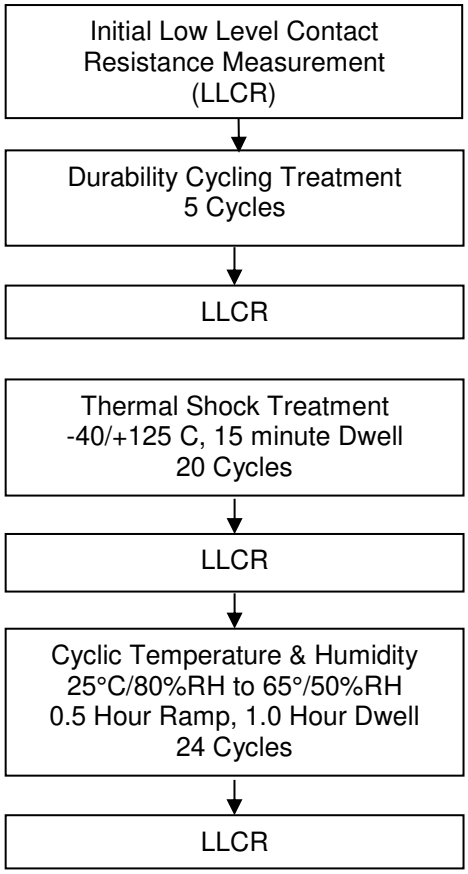
7.0 TEST SEQUENCE

7.1 Reliability Test Sequences:

Temperature Life
(EIA-364-1000.01A Table 1)

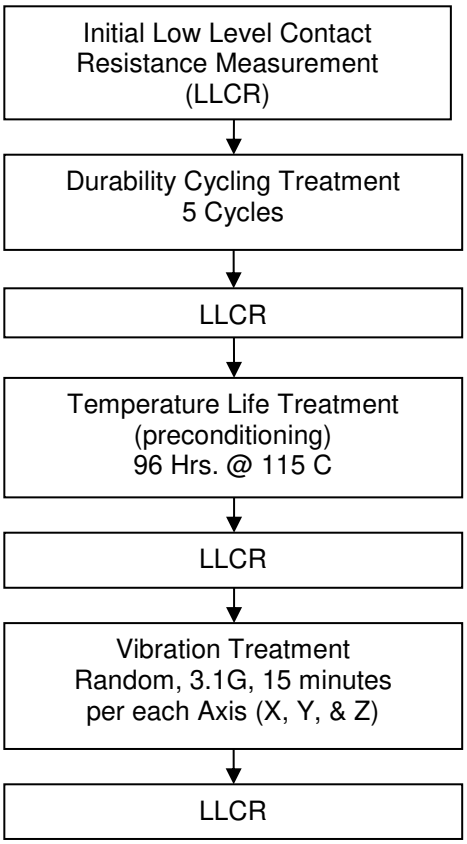


Temperature Shock/Cyclic Temperature & Humidity
(EIA-364-1000.01A Table 2)

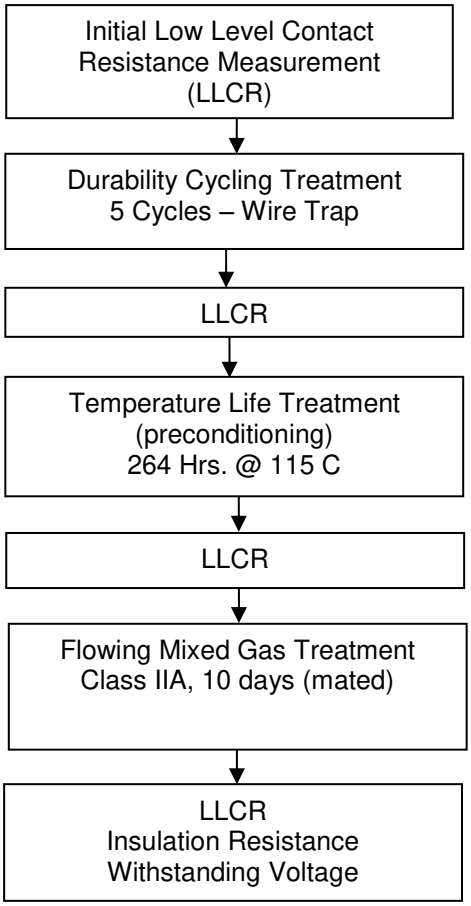


7.1 Reliability Test Sequences (continued):

Vibration Thermal Cycling
(EIA-364-1000.0.01A Table 3)

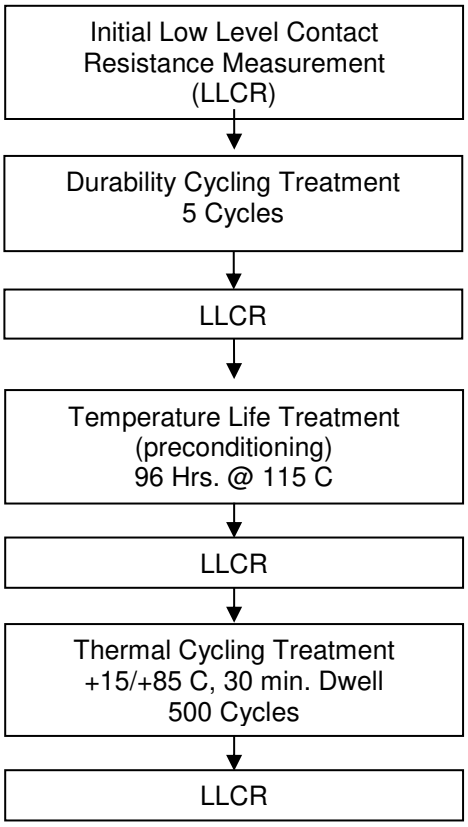


Mixed Flowing Gases
(EIA-364-1000.01A Table 4)



7.1 Reliability Test Sequences (continued):

Thermal Cycling
(EIA-364-1000.01A Table 5)



8.0 PACKAGING

Parts shall be packaged to protect against damage during handling, transit and storage.

8.1 PACKAGING DRAWINGS

DRAWING NUMBER	DESCRIPTION
PK-180555-001	PACKAGING DRAWING FOR 180555 SERIES HOLDERS