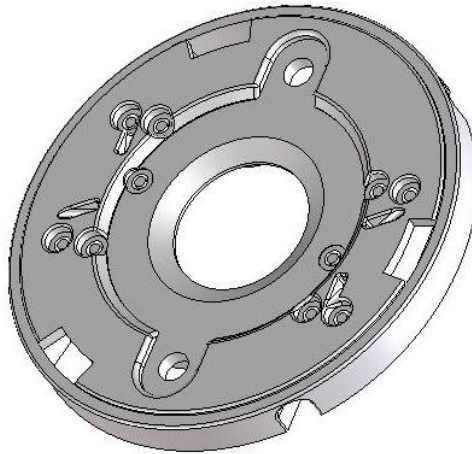


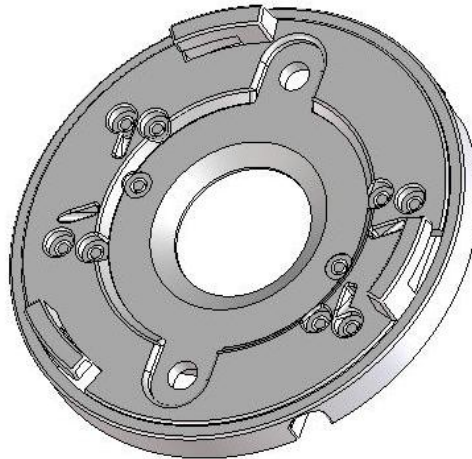


PRODUCT SPECIFICATION

PRODUCT SPECIFICATION MOLEX LED HOLDERS FOR NICHIA COB "L" SERIES (WITH ZHAGA INSPIRED COVER)



180580-0004 (Normal Zhaga Cover)



180580-0005 (Zhaga Cover with Reflector attachment)

REVISION: A1	ECR/ECN INFORMATION: EC No: SSL2016-0054 DATE: 31-Mar-16	TITLE: PRODUCT SPECIFICATION MOLEX LED HOLDERS FOR NICHIA COB "L" SERIES (WITH ZHAGA COVER)	SHEET No. 1 of 8
DOCUMENT NUMBER: PS-180580-004	CREATED / REVISED BY: L. ZABJANOVSKI	CHECKED BY: G. MEYER	APPROVED BY: G. MEYER



PRODUCT SPECIFICATION

PRODUCT

1.0 SCOPE

The Molex LED Holders for the NICHIA COB “L” series are electrical connectors and mechanical holder to simplify installation of the COB 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:

- * 180580-0004 LED Holder for NICHIA “L” (19mm x 16mm)
- * 180580-0005 LED Holder for NICHIA “L” (19mm x 16mm) with Reflector Attachment

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

Dimensions: See sales drawing SD-180580-004
Material: RoHs compliant materials.

2.3 SAFETY AGENCY APPROVALS

UL File Number: E345583

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 SD-180580-004 NICHIA COB “L” Series Holder Sales Drawing

REVISION: A1	ECR/ECN INFORMATION: EC No: SSL2016-0054 DATE: 31-Mar-16	TITLE: PRODUCT SPECIFICATION MOLEX LED HOLDERS FOR NICHIA COB “L” SERIES (WITH ZHAGA COVER)	SHEET No. 2 of 8
DOCUMENT NUMBER: PS-180580-004	CREATED / REVISED BY: L. ZABJANOVSKI	CHECKED BY: G. MEYER	APPROVED BY: G. MEYER



PRODUCT SPECIFICATION

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

Wire trap insert and release Operation : 5 cycles mate/un-mate
COB Pre-holding Operation : 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.

REVISION: A1	ECR/ECN INFORMATION: EC No: SSL2016-0054 DATE: 31-Mar-16	TITLE: PRODUCT SPECIFICATION MOLEX LED HOLDERS FOR NICHIA COB "L" SERIES (WITH ZHAGA COVER)	SHEET No. 3 of 8
DOCUMENT NUMBER: PS-180580-004	CREATED / REVISED BY: L. ZABJANOVSKI	CHECKED BY: G. MEYER	APPROVED BY: G. MEYER



PRODUCT SPECIFICATION

6.0 PERFORMANCE

6.1 ELECTRICAL PERFORMANCE

ITEM	TEST CONDITION	REQUIREMENT
LOW LEVEL CONTACT RESISTANCE (EIA-364-23)	With the holder mated, apply dry circuit 20mV MAX and 100mA MAX.	30mΩ MAX
WITHSTANDING VOLTAGE (EIA-364-20)	Measured between inserted wire and heat sink. Apply 1500V AC for 1minute, and 1.0mA leakage current.	No creeping discharge No flashover occurred
INSULATION RESISTANCE (EIA-364-21)	Measures between inserted wire and heat sink. Apply 500V DC for 1minute.	500MΩ MIN

REVISION: A1	ECR/ECN INFORMATION: EC No: SSL2016-0054 DATE: 31-Mar-16	TITLE: PRODUCT SPECIFICATION MOLEX LED HOLDERS FOR NICHIA COB "L" SERIES (WITH ZHAGA COVER)	SHEET No. 4 of 8
DOCUMENT NUMBER: PS-180580-004	CREATED / REVISED BY: L. ZABJANOVSKI	CHECKED BY: G. MEYER	APPROVED BY: G. MEYER



PRODUCT SPECIFICATION

6.2 MECHANICAL PERFORMANCE

ITEM	TEST CONDITION	REQUIREMENT
WIRE TRAP COVER RETENTION FORCE	Apply static load until cover separated from holder	20 N MIN
WIRE RETENTION FORCE	Apply static load until wire separates from holder	20 N MIN
DROP TEST	Drop 3 times (3 directions) from height of 1 meter onto concrete or equivalent surface	No damage which effects holder function

REVISION: A1	ECR/ECN INFORMATION: EC No: SSL2016-0054 DATE: 31-Mar-16	TITLE: PRODUCT SPECIFICATION MOLEX LED HOLDERS FOR NICHIA COB "L" SERIES (WITH ZHAGA COVER)	SHEET No. 5 of 8
DOCUMENT NUMBER: PS-180580-004	CREATED / REVISED BY: L. ZABJANOVSKI	CHECKED BY: G. MEYER	APPROVED BY: G. MEYER



PRODUCT SPECIFICATION

6.3 ENVIRONMENTAL PERFORMANCE

ITEM	TEST CONDITION	REQUIREMENT
TEMPERATURE LIFE (EIA-364-17)	Fasten Holder to Heatsink with LED. Insert Wires in Wire Traps. Expose 180 hours at 115°C	Max. 20 mohm Contact Resistance Change per Interface
TEMPERATURE SHOCK/CYCLIC TEMPERATURE & HUMIDITY (EIA-364-32 & 31)	Fasten Holder to Heatsink with LED. Insert Wires in Wire Traps. Expose to -40/125°C, 15 Minute Dwell, 20 Cycles Expose to Thermal Cycle 25°C/80%RH to 65°C/50%RH. 0.5 Hour Ramp, 1.0 Hour Dwell, 24 Cycles	Max. 20 mohm Contact Resistance Change per Interface
VIBRATION (EIA-364-28)	Fasten Holder to Heatsink with LED. Insert Wires in Wire Traps. Expose to Random 3.1G Vibration, 15 Minutes per Axis (X, Y, & Z)	Max. 20 mohm Contact Resistance Change per Interface
THERMAL CYCLING (EIA-364-1000)	Fasten Holder to Heatsink with LED. Insert Wires in Wire Traps. Expose to +15/+85°C, 30 Minute Dwell, 500 Cycles	Max. 20 mohm Contact Resistance Change per Interface

REVISION: A1	ECR/ECN INFORMATION: EC No: SSL2016-0054 DATE: 31-Mar-16	TITLE: PRODUCT SPECIFICATION MOLEX LED HOLDERS FOR NICHIA COB "L" SERIES (WITH ZHAGA COVER)	SHEET No. 6 of 8
DOCUMENT NUMBER: PS-180580-004	CREATED / REVISED BY: L. ZABJANOVSKI	CHECKED BY: G. MEYER	APPROVED BY: G. MEYER

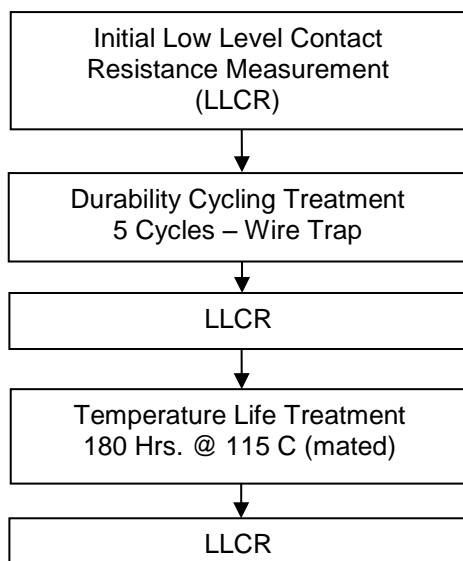


PRODUCT SPECIFICATION

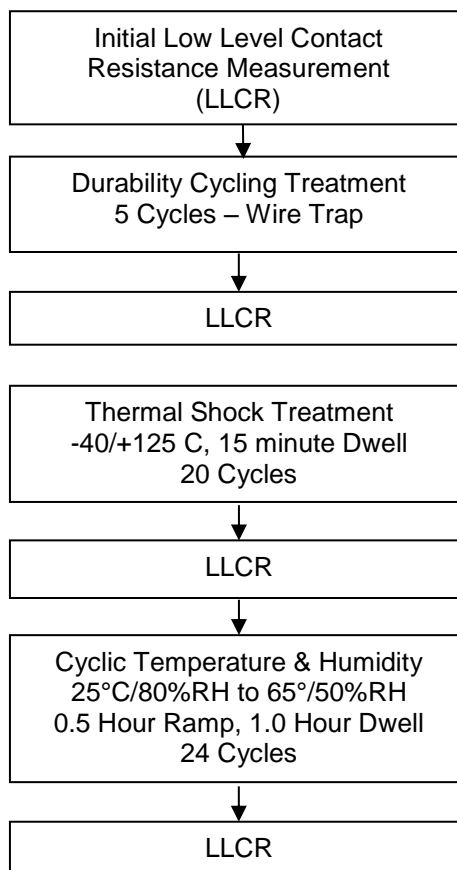
7.0 TEST SEQUENCE

7.1 Reliability Test Sequences:

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



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



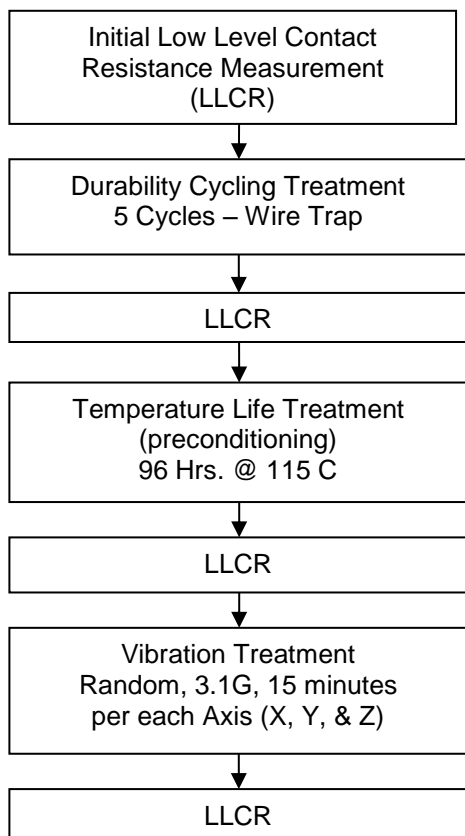
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DOCUMENT NUMBER: PS-180580-004	CREATED / REVISED BY: L. ZABJANOVSKI	CHECKED BY: G. MEYER	APPROVED BY: G. MEYER



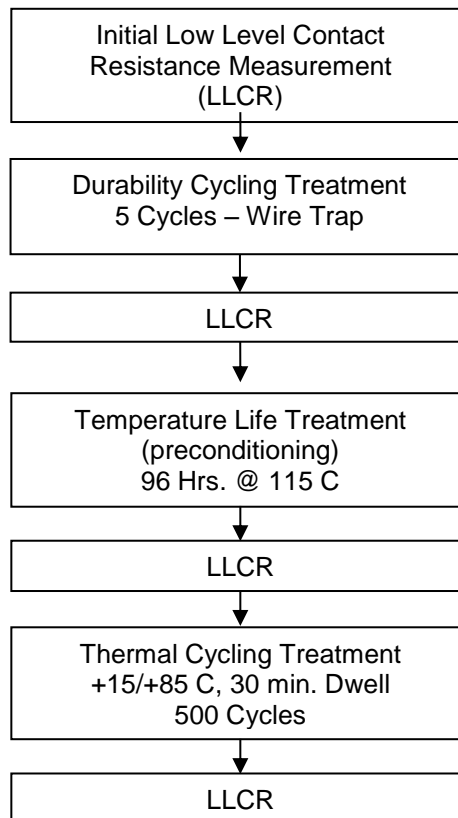
PRODUCT SPECIFICATION

7.1 Reliability Test Sequences (continued):

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



Group 4 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

<u>DRAWING NUMBER</u>	<u>DESCRIPTION</u>
PK-180580-004	Packaging Drawing for NICHIA "L" Series Holder

REVISION: A1	ECR/ECN INFORMATION: EC No: SSL2016-0054 DATE: 31-Mar-16	TITLE: PRODUCT SPECIFICATION MOLEX LED HOLDERS FOR NICHIA COB "L" SERIES (WITH ZHAGA COVER)	SHEET No. 8 of 8
DOCUMENT NUMBER: PS-180580-004	CREATED / REVISED BY: L. ZABJANOVSKI	CHECKED BY: G. MEYER	APPROVED BY: G. MEYER