

## MOLEX SLIMRAY HOLDERS FOR LUMILEDS CHIP ON BOARD (COB) LEDS

### 1.0 SCOPE

This Product Specification covers Molex SlimRay COB holders for LUMILEDS 1202 to 1212 series COB. These holders are electrical connectors and mechanical holders to simplify installation of COB LEDs, without solder connections. They also incorporate prewired leads.

### 2.0 PRODUCT DESCRIPTION

#### 2.1 PRODUCT NAME AND SERIES NUMBER(S)

This specification covers the performance requirements and test methods for the following products:

<u>Part Number</u>	<u>Description</u>
180555-103*	COB HOLDER ASSEMBLY 16MM X 19MM FOR LUMILEDS
180555-104*	COB HOLDER ASSEMBLY 20MM X 24MM FOR LUMILEDS
180555-105*	COB HOLDER ASSEMBLY 28MM X 28MM FOR LUMILEDS

#### 2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

Dimensions: See sales drawing SD-180555-131, SD-180555-141, and SD-180555-151.  
Material: RoHS compliant materials

### 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.

<u>Document Number</u>	<u>Description</u>
SD-180555-131	COB HOLDER ASSEMBLY 16MM X 19MM FOR LUMILEDS
SD-180555-141	COB HOLDER ASSEMBLY 20MM X 24MM FOR LUMILEDS
SD-180555-151	COB HOLDER ASSEMBLY 28MM X 28MM FOR LUMILEDS
TS-180555-002	TEST SUMMARY MOLEX SLIMRAY HOLDERS FOR LUMILEDS 1202 TO 1212 SERIES COB

REVISION: <b>A1</b>	ECR/ECN INFORMATION: EC No: <b>SSL2015-0110</b> DATE: <b>12 JUNE 2015</b>	TITLE: <b>PRODUCT SPECIFICATION MOLEX SLIMRAY HOLDERS FOR LUMILEDS 1202 TO 1212 SERIES COB</b>	SHEET No. <b>1 of 4</b>
DOCUMENT NUMBER: <b>PS-180555-002</b>	CREATED / REVISED BY: <b>M. COLE</b>	CHECKED BY: <b>N. VANSTIPHOUT</b>	APPROVED BY: <b>G. MEYER</b>

## 4.0 RATINGS

### 4.1 VOLTAGE

300 Volts DC maximum

### 4.2 CURRENT

3.0 Amp Maximum Peak Current

### 4.3 TEMPERATURE

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

### 4.4 DURABILITY

5 cycles mate/un-mate (wire trap insert and release operation)

### 4.5 RATED TIME

50,000 hours

## 5.0 PERFORMANCE

### 5.1 REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	Temperature Life Treatment as per EIA-364-17 Method A (without electrical load)	Temperature 125°C Duration 1000Hrs	20 milliohms MAXIMUM (change from initial) & Visual: No Damage
2	Device Driven Thermal Cycling	On / Off Cycling Tc 40°C to 85°C 5500 Cycles	20 milliohms MAXIMUM (change from initial) & Visual: No Damage

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## 5.1 REQUIREMENTS (continued)

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
3	Thermal Shock as per EIA-364-32 Cyclic Temperature and Humidity as per EIA-364-31	Thermal Shock: -40 to +105 C 15 Minute Dwell 50 Cycles Cyclic Temperature and Humidity 25C/80%RH to 65C/50%RH 0.5 Hour Ramp 1.0 Hour Dwell 24 Cycles	20 milliohms MAXIMUM (change from initial) & Visual: No Damage
4	Vibration as per EIA-364-28, test condition VII test condition letter D	Pre Treatment at 125C for 384 hours  Vibration: 15 Minutes 3 Perpendicular Directions Random vibration profile 20 to 500 Hz Power Spectral Density 0.002 g <sup>2</sup> /Hz Overall 3.10 g rms	20 milliohms MAXIMUM (change from initial) & Visual: No Damage
5	Temperature Life Preconditioning as per EIA- 364-17 Method A  Flowing Mixed Gas as per EIA-364-65 Class IIA  Thermal disturbance as per 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 Cl <sub>2</sub> , 200 ppb NO <sub>2</sub> , 10 ppb H <sub>2</sub> S, 100 ppb SO <sub>2</sub> 14 day exposure for 10 year field life (mated) Thermal disturbance EIA-364-1000.1 10 cycles 15C to 85C	20 milliohms MAXIMUM (change from initial) & Visual: No Damage
6	Assembly Test [Plug / Unplug 10X]	Assemble and Disassemble holder with CoB. Measure LLCR	20 milliohms MAXIMUM (change from initial) & Visual: No Damage

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5.1 REQUIREMENTS (continued)			
ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
7	Wire Retention Force	Axial pullout force on the terminal in the housing at a rate of $25 \pm 6$ mm ( $1 \pm \frac{1}{4}$ inch) per minute.	<b>58 N (13 lbf)</b> MINIMUM retention force

## 6.0 PACKAGING

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

### 6.1 PACKAGING DRAWINGS

#### DRAWING NUMBER DESCRIPTION

PK-180559-013	PACKAGING ASSEMBLY
PK-180559-014	PACKAGING ASSEMBLY

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