

Product Change Notification

PC N

Product Group: DR/Mon Dec 19, 2022/PCN-DR-00020-2022-REV-0

## WSL3921 & WSLP3921: Improved Standoff Forming Process

**DESCRIPTION OF CHANGE:** WSL3921 & WSLP3921 process is being improved that shapes the copper leads to create the board standoff feature. Previous process used a stamping process to create the feature while the new process will provide the same standoff feature using a roll forming process.

**REASON FOR CHANGE:** The revised process enables greater production capacity.

**EXPECTED INFLUENCE ON QUALITY/RELIABILTY/PERFORMANCE:** There will be no change to the Fit, Form, or Function of the part. The roll form process is being applied to the copper terminal and will provide the same dimensions and electrical performance. Product will appear visually equivalent to previous process.

PART NUMBERS/SERIES/FAMILIES AFFECTED: WSL3921\*, WSLP3921\*,

VISHAY BRAND(s): Vishay Dale

TIME SCHEDULE: Start Shipment Date: Mon Feb 6, 2023

SAMPLE AVAILABILITY: 02/05/2023

**PRODUCT IDENTIFICATION:** Product identification will require production lot information to verify with Vishay data systems. Product will appear visually equivalent to previous process.

**QUALIFICATION DATA:** Available

This PCN is considered approved, without further notification, unless we receive specific customer concerns before Wed Jan 18, 2023 or as specified by contract.

ISSUED BY: Bryan Yarborough, bryan.yarborough@vishay.com

For further information, please contact your regional Vishay office.

## CONTACT INFORMATION:

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## Vishay Intertechnology, Inc.

Corporate Headquarters 63 Lincoln Highway, Malvern, PA 19355-2143 U.S.A. Phone (610) 644-1300 Fax (610) 296-0657 www.vishay.com ONE OF THE WORLD'S LARGEST MANUFACTURERS OF DISCRETE SEMICONDUCTORS AND PASSIVE COMPONENT

DESCRIPTION	AEC TEST #	TEST CONDITIONS
High Temperature Exposure (Storage)	3	MIL-STD-202, Method 108, 2000 Hrs @ T=170° Measurements at 24± 2 hrs
Temperature Cycling	4	MIL-STD-202 Method 107 Condition F, -55°C to 15min, 2000 Cycles.
Moisture Resistance	6	MIL-STD-202, Method 106, t=24 hours/cycle. N required, 0% power, No Polo, 65°C, Measureme test.
Biased Humidity	7	MIL-STD-202, Method 103, 2000 hrs 85°C/85% conditions: 10% of operating power. Measurem test.
Operational Life	8.1	MIL-STD 202, Method 108, Condition D Steady power from derating curve. Measurements at 24 2000hrs.
Operational Life	8	MIL-STD 202, Method 108, 2,000 hr test; Condi hrs "OFF"; +125°C @ rated power. Measuremer conclusion.
External Visual	9	Inspect per ICP document and sections listed in section. Inspect device construction, marking ar
Physical Dimension	10	JESD22 Method JB-100, Verify physical dimen WSLP3921 data sheet.
Resistance to Solvents	12	Testing is to verify marking permanency; it is not components.
Mechanical Shock	13	MIL-STD-202, Method 213
Vibration	14	MIL-STD-202, Method 204, Condition D
Resistance to Solder Heat	15	MIL-STD-202, Method 210, Condition K
Thermal Shock	16	Temperatute Cycling has been substituted as it refer to test 4.
ESD	17	AEC-Q200-002
Solderability	18.F1	J-STD-002; Method S1 Pb-Free; 4 hrs. @ +155 PCB; Max reflow temp +260°C ; no electrical tes
Solderability	18.F2	J-STD-002; Method S SnPb; 4 hrs. @ +155°C ⊑ Max reflow temp +230°C ; no electrical test; 50≻
Electrical Characterization	19	RTC at -65°C & 170°C
Flammability	20	UL-94
Board Flex	21	AEC-Q200-005 2mm min
Terminal Strength (SMD)	22	AEC-Q200-006 Force of 1.8 Kg for 60 seconds
Flame Retardance	24	AEC-Q200-001

Note 1) Qualification by similarity. Test data referenced existing process WSLP3921 0.2 m $\Omega$  as the 0.7 m $\Omega$  fa Note 2) Solderability acceptance Criteria is  $\geq$ 95% coverage of solder fillet with wetting angle <90°. (Height at le Note 3) Flame retardance requires the application of 9V for 1 hour on a low resistance value current sense resi under these conditions, resulting in temperatures that exceeds 350 °C for > 10 seconds.

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High Temperature Exposure (Storage)	3	MIL-STD-202, Method 108, 2000 Hrs @ T=170° Measurements at 24± 2 hrs
Temperature Cycling	4	MIL-STD-202 Method 107 Condition F, -55°C to 15min, 2000 Cycles.
Moisture Resistance	6	MIL-STD-202, Method 106, t=24 hours/cycle. N required, 0% power, No Polo, 65°C, Measureme test.
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Note 1) Qualification by similarity. Test data referenced existing process WSLP3921 1.0 m $\Omega$  as the 2.0 m $\Omega$  fa Note 2) Solderability acceptance Criteria is  $\geq$ 95% coverage of solder fillet with wetting angle <90°. (Height at le Note 3) Flame retardance requires the application of 9V for 1 hour on a low resistance value current sense resi under these conditions, resulting in temperatures that exceeds 350 °C for > 10 seconds.

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Note 1) Qualification by similarity. Test data referenced existing process WSLP3921 4.0 m  $\!\Omega.$ 

**Note 2)** Solderability acceptance Criteria is  $\geq$ 95% coverage of solder fillet with wetting angle <90°. (Height at le **Note 3)** Flame retardance requires the application of 9V for 1 hour on a low resistance value current sense resi under these conditions, resulting in temperatures that exceeds 350 °C for > 10 seconds.