



8755 W. Higgins Road
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Chicago, Illinois USA 60631

August 15th, 2022

RE: PCN # ESU270-82 – SOT23-3L additional backend location approval

To our valued customers,

Littelfuse would like to notify you of an additional approved backend location for SOT23-3L TVS Diode Array (SPA® Diodes) products. This additional backend factory in China is fully approved for all assembly, test, and packing operations. There are no changes to fit, form, and function of the finished products.

Qualification efforts are complete, and the new factory is ramping for shipments.

Products Affected:

Affected Part Numbers
SM24CANA-02HTG
SM712-02HTG

The affected products have been fully qualified in accordance with established performance and reliability criteria. The attached pages summarize the qualification results. Full qualification data and/or samples will be available upon request.

Form, fit, function changes: None
Part number changes: None
Effective date: November 15th, 2022 or sooner
Replacement products: N/A
Last time buy: N/A

This notification is for your information and acknowledgement. If you have any other questions or concerns, please contact Sophia Hu, Assistant Product Manager.

We value your business and look forward to assisting you whenever possible.

Best Regards,

Sophia Hu
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Prepared By : Jordan Hsieh-Product Engineering Manager,
Raider Chen-Product Engineer, Sophia Hu- Assistant Product Manager
Date : 2022/8/5
Device : SM24CANA-02HTG, SM712-02HTG
Revision : A

1.0 Objective:

The purpose of this document is to qualify an additional assembly supplier for SM24CANA-02HTG and SM712-02HTG. Summarize the physical, electrical and reliability test performed in qualification lots.

2.0 Applicable Devices:

2.1 Product name:

Affected Part Numbers
SM24CANA-02HTG
SM712-02HTG

3.0 Assembly, Process & Material Differences/Changes:

3.1 Assembly Changes

No change of assemble process.

3.2 Process Changes

No change of process method.

3.3 Material Change

Raw Material Comparison Table			
Item	Original	New	Change or not
Lead frame	C194	CACS5	Yes
Die Attach Material	2200D/8008	84-1LMISR4	Yes
Wire	Gold	Gold	No
Mold Compound	G600	G600	No
Plating	PPF	Matte Tin	Yes

4.0 Packing Method

No change of packing method.

5.0 Physical Differences/Changes:

No change in mechanical specification or package outline dimension (POD).

6.0 Reliability Test Results Summary:

6.1 Reliability summary report:

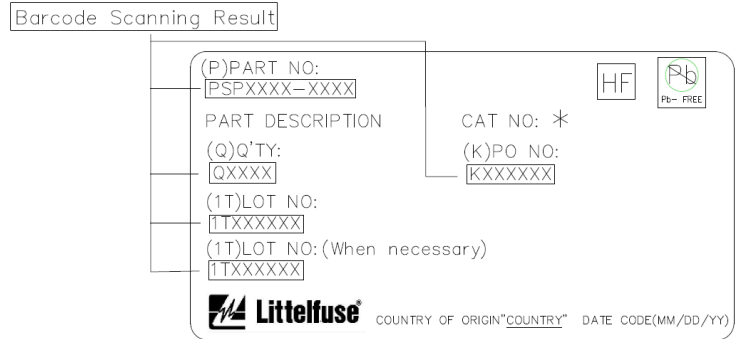
Test Items	Condition	S/S	Results	ETR #
Pre-conditioning (PC)	JESD22-A113	308 each lot	0/924	133937 117688 117689
DC Blocking (HTRB)	Bias = VRWM, Ta = 150°C, Duration = 1008 Hours	77 each lot	0/231	
Temperature Cycle (TC)	Ta = -55°C to +150°C, Duration = 1000 Cycles	77 each lot	0/231	
Temperature/Humidity (H3TRB)	Ta = 85°C, 85% RH, Bias = VRWM, Duration = 1008 Hours	77 each lot	0/231	
Autoclave (AC)	Ta = 121°C, 100%RH, 2ATM, Duration = 96 Hours	77 each lot	0/231	
Resistance to Solder Heat (RSH)	260°C, 10 sec, M-2031	10 each lot	0/30	
Moisture Sensitivity Level (MSL)	Per Jedec J-STD-020D Level 1	308 each lot	0/924	
Solderability (SD)	ANSI-J-STD-002	10 each lot	0/30	

7.0 Electrical Characteristic Summary:

No change in electrical characteristics. Characterization data is available upon request.

8.0 Changed Part Identification:

Both suppliers were qualified and it can be identified by code of CAT NO on the label.



9.0 Approvals:

Sophia Hu
SPA Assistant Product Manager
Littelfuse, Wuxi

Jordan Hsieh
SPA Product Manager
Littelfuse, HsinChu

Raider Chen
SPA Product Engineer
Littelfuse, HsinChu