



8755 W. Higgins Road  
Suite 500  
Chicago, Illinois USA 60631

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April 11<sup>th</sup>, 2022

RE: PCN # ESU270-78 – SM24CANB-02HTG additional backend location approval

To our valued customers,

Littelfuse would like to notify you of an additional approved backend location for SM24CANB-02HTG TVS Diode Array (SPA® Diodes) product. This additional packaging supplier is necessary to provide stability, in response to the resurgence of the pandemic in Southeast Asia. This additional backend factory, located in China is fully approved for all assembly, test, and packing operation. This factory currently supports commercial and automotive products in the same packages.

Qualification efforts are completed, and the new factory is online for immediate shipments. Please see the documentation in the following pages for change details.

The affected product has 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: Nominal differences in package height**

**Part number changes: None**

**Effective date: July 11<sup>th</sup>, 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  
TVS Diode Array Assistant Product Manager  
Semiconductor Business Unit, Wuxi, China  
+86 510 85277701 - 7653  
[shu@littelfuse.com](mailto:shu@littelfuse.com)

<b>PCN# :</b> ESU270-78    Date: April 11 <sup>th</sup> , 2022  Product Identification : SM24CANB-02HTG additional backend location approval  Implementation Date for Change: July 11 <sup>th</sup> , 2022 or sooner	<b>Contact Information</b> Name: Sophia Hu Title: Assistant Product Manager Phone # : +86 13771377277 Fax# : N/A E-mail : shu@littelfuse.com
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<b>Category of Change:</b> <input type="checkbox"/> Assembly Process <input type="checkbox"/> Data Sheet <input type="checkbox"/> Technology <input type="checkbox"/> Discontinuance/Obsolescence <input type="checkbox"/> Equipment <input checked="" type="checkbox"/> Manufacturing Site <input checked="" type="checkbox"/> Raw Material <input type="checkbox"/> Testing <input type="checkbox"/> Fabrication Process <input type="checkbox"/> Other: _____	<b>Description of Change:</b> Approve additional backend assembly, test, and packing location for SM24CANB-02HTG.
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<b>Important Dates:</b> <input checked="" type="checkbox"/> Qualification Samples Available: Upon request <input checked="" type="checkbox"/> Final Qualification Data Available: Upon request <input type="checkbox"/> Date of Final Product Shipment:	<input type="checkbox"/> Last Time Buy:
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<b>Method of Distinguishing Changed Product</b> <input checked="" type="checkbox"/> Product Mark, See (8.0) in the succeeding PCN report for details <input type="checkbox"/> Date Code, <input type="checkbox"/> Other,
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<b>Demonstrated or Anticipated Impact on Form, Fit, Function or Reliability:</b> N/A
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<b>LF Qualification Plan/Results:</b> Yes
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**Customer Acknowledgement of Receipt:** Littelfuse requests you acknowledge receipt of this PCN. In your acknowledgement, you can grant approval or request additional information. Littelfuse will assume the change is acceptable if no acknowledgement is received within 30 days of this notice. Lack of any additional response within 90 days of PCN issuance further constitutes acceptance of the change.



**Prepared By** : Jordan Hsieh-Product Engineering Manager,  
Raider Chen-Product Engineer, Sophia Hu- Assistant Product Manager  
**Date** : 2022/3/29  
**Device** : SM24CANB-02HTG  
**Revision** : A

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### 1.0 Objective:

The purpose of this document is to qualify an additional assembly supplier for SM24CANB-02HTG. Summarize the physical, electrical and reliability test performed in qualification lots.

### 2.0 Applicable Devices:

2.1 **Product name: SM24CANB-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**

SM24CANB-02HTG			
Item	Original	New	Change or not
Lead frame	C194	CACS5	Yes
Die Attach Material	2200D	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 of package dimensions.

**6.0 Reliability Test Results Summary:**

**6.1 SM24CANB-02HTG summary report:**

Test Items	Condition	S/S	Results	ETR #
Pre-conditioning (PC)	JESD22-A113	308 each lot	0/924	117689 117690 170510
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:**

Below qualified supplier and it can be identified by code of CAT NO on the label.

Barcode Scanning Result

(P)PART NO: PSPXXXX-XXXX	HF	Pb-FREE
PART DESCRIPTION	CAT NO: *	
(Q)Q'TY: QXXXX	(K)PO NO: KXXXXXX	
(1T)LOT NO: 1TXXXXXX		
(1T)LOT NO:(When necessary) 1TXXXXXX		
 COUNTRY OF ORIGIN "COUNTRY" DATE CODE (MM/DD/YY)		

**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