



6133 North River Road
Suite 500
Rosemont, IL 60018 Chicago

Feb 21st, 2025

RE: PCN # ESU270-101- New Wafer Foundry and Additional Backend Location Approval for SM712-02HTG & SM712-02HTG-ER & SM712-02HTG-ER1 & SM712-02HTG-ER2 & SP712-02HTG & SP712-02HTG-1

To our valued customer,

Littelfuse would like to notify you that we are going to add a new wafer foundry location and add an additional backend location for SM712-02HTG & SM712-02HTG-ER & SM712-02HTG-ER1 & SM712-02HTG-ER2 & SP712-02HTG & SP712-02HTG-1 TVS Diode Array (SPA® Diodes) products. The target foundry & backend sites are existing suppliers to Littelfuse, and the affected products are incremental to other Littelfuse products at the site. There are no changes to fit, form, and function of finished products.

The affected products will be fully qualified in accordance with established performance and reliability criteria. Samples would be provided upon your request.

Products Affected:

Affected Part Numbers		
SM712-02HTG	SM712-02HTG-ER	SM712-02HTG-ER1
SM712-02HTG-ER2	SP712-02HTG	SP712-02HTG-1

Form, fit, function changes: None

Part number changes: None

Effective date: May 21st, 2025 or sooner

Replacement products: N/A

Last time buy: N/A

This PCN is for your information and acknowledgement. If you have any other questions or concerns, please contact your local sales team or product team below for further assistance.

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



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Product/Process Change Notice (PCN)

PCN# :

ESU270-101 Date: Feb 21st, 2025

Product Identification:

New Wafer Foundry and Additional Backend
Location Approval for SM712-02HTG & SM712-
02HTG-ER & SM712-02HTG-ER1 & SM712-02HTG-
ER2 & SP712-02HTG & SP712-02HTG-1

Implementation Date for Change:

May 21st, 2025 or sooner

Contact Information

Name : Sophia Hu

Title : Assistant Product Marketing Manager

Phone # : +86 13771377277

Fax# : N/A

E-mail : shu@littelfuse.com

Category of Change:

- ☐ Assembly Process
- ☐ Data Sheet
- ☐ Technology
- ☐ Discontinuance/Obsolescence
- ☐ Equipment
- ☒ Manufacturing Site
- ☒ Raw Material
- ☐ Testing
- ☐ Fabrication Process
- ☐ Other: _____

Description of Change:

New Wafer Foundry and Additional Backend Location Approval for SM712-02HTG & SM712-02HTG-ER & SM712-02HTG-ER1 & SM712-02HTG-ER2 & SP712-02HTG & SP712-02HTG-1 SPA™ TVS Diode Arrays products. There are no changes to fit, form, function of the finished product.

Important Dates:

☒ Qualification Samples Available: Upon request

☐ Last Time Buy:

☒ Final Qualification Data Available: Upon request

☐ Date of Final Product Shipment:

Method of Distinguishing Changed Product

- ☐ Product Mark,
- ☒ Date Code,
- ☒ Other, Littelfuse internal work order documentation

Demonstrated or Anticipated Impact on Form, Fit, Function or Reliability:

N/A

LF Qualification Plan/Results:

Yes

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 : Wayne Wang- Sr. Product Engineer,
Ye Xin - Sr. Product Engineer, Sophia Hu-Assistant Product Manager
Date : 2025/01/22
Device : Please refer to 2.1.
Revision : A

1.0 Objective:

The purpose of this project is to qualify alternative assembly and testing supplier for TVS Diode Array products. Following pages summarize the physical, electrical and reliability test performance in qualification lots.

2.0 Applicable Devices:

2.1 Product name:

Affected Part Numbers		
SM712-02HTG	SM712-02HTG-ER	SM712-02HTG-ER1
SM712-02HTG-ER2	SP712-02HTG	SP712-02HTG-1

3.0 Assembly, Process & Material Differences/Changes:

3.1 Assembly Changes:

No change of assemble method.

3.2 Process Changes:

No change of process method.

3.3 Material Change:

Wafer change

4.0 Packing Method:

No change of packing method.

5.0 Physical Differences/Changes:

No change of physical dimension.

6.0 Reliability Test Results Summary:

PN	Test Items	Condition	S/S	Results	ETR #
SM712-02HTG	Pre-conditioning (PC)	JESD22-A113	308 each lot	0 Fail/924	TR25-01-013431
	DC Blocking (HTRB)	Bias = VRWM, Ta = 150°C, Duration = 1008 Hours	77 each lot	0 Fail/231	
	Temperature Cycle (TC)	Ta = -55°C to 150°C, Duration = 1000 Cycles	77 each lot	0 Fail/231	
	Temperature/Humidity (H3TRB)	Ta = 85°C, 85% RH, Bias = VRWM, Duration = 1008 Hours	77 each lot	0 Fail/231	
	Unbiased HAST (UHAST)	Ta = 130°C, 85%RH, Duration = 96 Hours	77 each lot	0 Fail/231	
	Resistance to Solder Heat (RSH)	260°C, 10 sec, M-2031	10 each lot	0 Fail/30	
	Moisture Sensitivity Level (MSL)	Per Jedec J-STD-020D Level 1	22 each lot	0 Fail/66	
	Solderability (SD)	ANSI-J-STD-002	10 each lot	0 Fail/30	

7.0 Electrical Characteristic Summary:

Electrical performances were comparable, and characterization data is available upon request.

8.0 Changed Part Identification:

Both suppliers were qualified by Littelfuse, and product can be identified by CAT NO on the label and internal work order documentation.

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: TXXXXXX		
(1T)LOT NO:(When necessary) TXXXXXX		
 COUNTRY OF ORIGIN "COUNTRY" DATE CODE(MM/DD/YY)		

9.0 Approvals:

Sophia Hu
SPA Assistant Product Manager
Littelfuse, Wuxi

Wayne Wang
Sr. SPA Product Engineer
Littelfuse, Wuxi

Ye Xin
Sr. SPA Product Engineer
Littelfuse, Wuxi