



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

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Nov 28th, 2024

RE: PCN # ESU270-99- Additional Backend Location Approval for SOD882 package

To our valued customer,

Littelfuse would like to notify you of an additional approved backend location for SOD882 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.

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

Products Affected:

SOD882 Product List		
AQ24COM-01ETG	AQ3118E-01ETG	SP3031-01ETG-R
AQ1003-01ETG	AQ3130E-01ETG	SP3205-01ETG
AQ1205-01ETG	AQ3130E-01ETG-32	SP3530-01ETG
AQ1210-01ETG	SP1003-01ETG	SP4322-01ETG
AQ3041-01ETG	SP3030-01ETG	AQ1250-01ETG
AQ1250-01ETG-1	AQ0115-01ETG	

Form, fit, function changes: None  
Part number changes: None  
Effective date: Feb 28th, 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



800 E. Northwest Highway Des Plaines, IL 60016

Product/Process Change Notice (PCN)

PCN# :

ESU270-99 Date: Nov 28th, 2024

Product Identification:

Additional Backend Location Approval for SOD882 package

Implementation Date for Change:

Feb 28th, 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:

Additional Backend Location Approval for SOD882 SPA™ TVS Diode Arrays products. There are no changes to fit, form, function of the finished product.

Important Dates:

- Qualification Samples Available: Upon request
- Final Qualification Data Available: Upon request
- Date of Final Product Shipment:
- Last Time Buy:

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 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-Product Engineer,  
Ye Xin -Product Engineer, Sophia Hu- Assistant Product Manager  
**Date** : 2024/11/27  
**Device** : Please refer to 2.1.  
**Revision** : A

## 1.0 Objective:

Qualify alternative assembly and testing supplier for SOD882 package type products. Summarize the physical items, electrical characteristics and reliability result of qualification lots.

## 2.0 Applicable Devices:

### 2.1 **Product name:**

SOD882 Product List		
AQ24COM-01ETG	AQ3118E-01ETG	SP3031-01ETG-R
AQ1003-01ETG	AQ3130E-01ETG	SP3205-01ETG
AQ1205-01ETG	AQ3130E-01ETG-32	SP3530-01ETG
AQ1210-01ETG	SP1003-01ETG	SP4322-01ETG
AQ3041-01ETG	SP3030-01ETG	AQ1250-01ETG
AQ1250-01ETG-1	AQ0115-01ETG	

## 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:**

Item	Original	New	Change or not
Lead frame	A194 & PPF	PPF	No
Die Attach Material	S220 8006NS	8006NS/8008HT/8008MD	Yes
Wire	Au	Au	No
Mold Compound	G600 / G770 CEL-9240HF	G770	No
Plating	Tin & PPF	PPF	No

## 4.0 **Packing Method**

No change of packing method.

## 5.0 Physical Differences/Changes:

No change of the physical dimension and new site pad appearance is same as the one of the original pad.

Original				New			
Symbol	Dimensions(mm)			Symbol	Dimensions(mm)		
	Min.	Nor.	Max.		Min.	Nor.	Max.
A	0.45	0.5	0.55	A	0.45	0.5	0.55
A1	0.125/0.150 (REF)			A1	0.12	0.15	0.18
L1	0.2	0.25	0.3	L1	0.2	0.25	0.3
L2	0.45	0.5	0.55	L2	0.45	0.5	0.55
D	0.95	1	1.05	D	0.95	1.00	1.05
E	0.55	0.6	0.65	E	0.55	0.60	0.65
e	0.65BSC			e	0.65BSC		
h	0.07	0.12	0.17	h	0.07	0.12	0.17

## 6.0 Reliability Test Results Summary:

### 6.1 Reliability summary report:

Test Items	Condition	S/S	Results	ETR #
Pre-conditioning (PC)	JESD22-A113	241 each lot	0/723	TR24-05-008836 TR24-05-008838 TR24-05-008839
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	
Unbiased HAST (UHAST)	Ta = 130°C, 85%RH, 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 Jecdec J-STD-020D Level 1	241 each lot	0/723	
Solderability (SD)	ANSI-J-STD-002	10 each lot	0/30	


## 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.

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

**Emily Chen**  
SPA Product Engineer  
Littelfuse, HsinChu