



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

March 4th, 2016

RE: PCN # ESU270-36 -- SP1255PUTG Alternate Location Approval for Backend Assembly, Test and Packing

To our valued customers,

Littelfuse would like to notify you of a newly approved backend location for the SP1255PUTG TVS Diode Array (SPA® Diodes) products. The new backend factory in Thailand is fully approved for all assembly, test, and packing operations. There are no changes to fit, form, and function of the finished product.

Qualification efforts are complete and the new factory is online for immediate shipments. Please see the attached documentation for change detail and affected part numbers.

All 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: June 4th, 2016 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 Tim Micun, Product Manager.

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

Best Regards,

Tim Micun
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800 E. Northwest Highway Des Plaines, IL 60016

Product/Process Change Notice (PCN)

PCN#: ESU270-36 **Date:** March 4, 2016

Product Identification:

SP1255PUTG of TVS

Diode Array Products

Implementation Date for Change:

June 4, 2016

Contact Information

Name: Tim Micun

Title: Product Marketing Manager

Phone #: +1 408 409 3657

Fax#: N/A

E-mail: tmicun@littelfuse.com

Category of Change:

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

Description of Change:

Approve an alternate backend assembly, test, and packing location for SP1255PUTG product.

There are no changes to fit, form & function of the finished product. The affected products have been fully qualified in accordance with all established criteria for performance and reliability

All relevant detail is included in the supplemental pages..

Important Dates:

Qualification Samples Available: Feb 22, 2016

Last Time Buy:

Final Qualification Data Available: Feb 22, 2016

Date of Final Product Shipment:

Method of Distinguishing Changed Product

- Product Mark,
- Date Code,
- Other, See (8.0) in the succeeding PCN report for details

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

N/A

LF Qualification Plan/Results:

N/A

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.



PCN Report

ETR # Various

Prepared By : Jordan Hsieh-SPA Product Engineering Manager,
: Light Hsieh-SPA Product Engineer
Date : Feb/22/2016
Device : SP1255PUTG
Revision : A

1.0 Objective:

The purpose of this project is to qualify a second / alternate assembled supplier for SP1255PUTG product. Succeeding pages summarize the physical, electrical and reliability test performed in qualification lots.

2.0 Applicable Devices:

LITTELFUSE
Part Numbers
SP1255PUTG

3.0 Assembly, Process & Material Differences/Changes:

3.1 Assembly and Process Changes

There are no changes in the assembly and process method

3.2 Material Changes

There are no changes in the BOM.

4.0 Packing Method

There will be no changes in the packing method.

5.0 Physical Differences/Changes:

There is no change in mechanical specification or package outline dimension (POD).



6.0 Reliability Test Results Summary:

Test Items	Condition	S/S	Results	ETR #
Precondition	(1) Bake 24hr @ 150°C (2) 168hrs @ 85% RH and 85°C (3) IR Reflow, 3 reflows, Peak Temperature of 260°C	308	0/308	ETR 79843 ETR 79844 ETR 79846
DC Blocking(HTRB)	Bias = Rated Voltage Ta = 150°C Duration = 168 Hours	77	0/77	
Temperature Cycle	Ta = -55°C to +150°C Duration = 250 Cycles	77	0/77	
Temperature/Humidity (H ³ TRB)	Ta = 85°C, 85% RH Duration = 168 Hours	77	0/77	
Autoclave	Ta = 121°C, 100%RH, 15psi Duration = 168 Hours	77	0/77	
Parametric & Capacitance Test	VRWM=1μA, Ir=5V ; Cd at Vr=0V1Mhz Ta=25°C	30	0/30	
ESD Test	HBM>8KV MM>400V	30	0/30	
Moisture Sensitivity Level(MSL)	Refer to Precondition Test	80	0/80	
Solderability	Refer to Precondition Test	10	0/10	
Resistance to Solder Heat	Ta = 260°C Duration = 10s	10	0/10	

7.0 Electrical Characteristic Summary:

There is no change in electrical characteristics. Characterization data is available upon request.

8.0 Changed Part Identification:

To distinguish different vender can check on the mark code and label information as below,

I. Mark code:

Original	New Supplier
ⓐG3	ⓐH3

II. Labeling:

Original CAT No	New Supplier CAT No
G	H



9.0 Recommendations & Conclusions:

Based on the electrical and reliability test results, it is determined that the second/alternative assembled supplier is qualified and certified for production of Littelfuse® SP1255PUTG product.

10.0 Approvals:

Jordan Hsieh
SPA Product Engineering Manager
Littelfuse, Hsinchu