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Chicago, Illinois USA 60631

September 26, 2025

PCN # ESW490-65 Approval of Additional Bare Wafer Supplier for Low Power Thyristor Products

To our valued customers,

To enhance supply chain resilience and ensure uninterrupted business operations, Littelfuse would like to notify you of a newly approved supplier for bare silicon wafers used in the manufacturing of Low Power Thyristor products.

The newly qualified supplier will provide raw silicon substates, which will undergo Littelfuse's standard semiconductor fabrication processes—including diffusion, photolithography, etching, and metallization etc.—to produce functional wafers. These wafers are subsequently used in the assembly of finished goods.

Please be advised that this change does not impact the fit, form, or function of the final products. Product quality and performance remain consistent and fully compliant with existing specifications.

Please see the attached documentation for qualification results and affected part numbers. Full qualification data and/or samples will be available upon request.

Form, fit, function changes: None

Part number changes: None

Effective date: December 25, 2025

Replacement products: N/A

Last time buy: N/A

This notification is for your information and acknowledgment. If you require specific data or product samples to certify this change, please contact Littelfuse within 90 days of the notification date.

If you have any other questions or concerns, please contact your local sales team or Maggie XU, Technical Support Manager of Low Power Thyristor Discrete.

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

Best Regards,

Maggie Xu
Technical Support Manager
Power Thyristor/Diode Discrete
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800 E. Northwest Highway Des Plaines, IL 60016

Product/Process Change Notice (PCN)

PCN#: ESW490-65 **Date:** Sep 26th, 2025

Product Identification:

Low Power Thyristor Products

Implementation Date for Change:

December 25, 2025

Contact Information

Name: Maggie Xu

Title: Technical Support Manager

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Category of Change:

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

Description of Change:

Approval of an additional raw silicon wafer supplier for Low Power Thyristor Products.

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: 9/26/2025, sample available upon request

☐ Last Time Buy:

☒ Final Qualification Data Available: 9/26/2025

☐ Date of Final Product Shipment:

Method of Distinguishing Changed Product

- ☐ Product Mark,
- ☒ Date Code, Traceability data available upon request
- ☐ Other,

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

N/A

LF Qualification Plan/Results:

All affected products have been fully qualified in accordance with established performance and reliability criteria.

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

Prepared By : Black Wang, Eleana Yang, Product Engineering
Maggie XU, Product Marketing Engineering
Date : Sep 26th, 2025
Products : Low Power Thyristor Product
Revision : A

1.0 Objective:

This report documents the qualification of a second source of bare silicon wafer material for Low Power Thyristor products. The purpose of this qualification is to strengthen supply chain resilience and support business continuity.

The subsequent sections detail the physical, electrical, and reliability evaluations performed on the qualification lots to verify that the new material source meets all applicable specifications and performance requirements.

2.0 Applicable Products:

Low Power Thyristor Products.

Please see the attachments for a full list of affected part numbers.

3.0 Physical Differences/Changes:

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

4.0 Qualification Test Result

All samples passed parametric and reliability test standard by Littelfuse.

Description	Sample P/N	Sample QTY'	Littelfuse test Ref#	Contents/ Conditions	Standard	Result Summary
Electrical Parameters	Q8025L5TP	415	TR24-02-006871	IDRM/IRRM IGT VGT IH VT	Per datasheet	100% meet published spec.
	QJ6030LH4TP	415	TR24-03-007594			
	SK055NTP	415	TR24-02-006866			
	Q6016NH4TP	415	TR24-02-007021			
	EC103D1	415	TR24-02-006879			
	SV8012DRP	415	TR24-02-007119			
AC Blocking (HTRB)	Q8025L5TP	77	TR24-02-006871	Tj, 1008hr, Reverse biased at peak AC voltage	MIL-STD-750	PASS
	QJ6030LH4TP	77	TR24-03-007594			
	SK055NTP	77	TR24-02-006866			
	Q6016NH4TP	77	TR24-02-007021			
	EC103D1	77	TR24-02-006879			
	SV8012DRP	77	TR24-02-007119			
High Humidity High Temp, Reverse Bias (H3TRB)	Q8025L5TP	77	TR24-02-006871	1008 hours; 160V & 320V - DC: 85°C; 85% relative humidity	JESD22-A101	PASS
	QJ6030LH4TP	77	TR24-03-007594			
	SK055NTP	77	TR24-02-006866			
	Q6016NH4TP	77	TR24-02-007021			
	EC103D1	77	TR24-02-006879			
	SV8012DRP	77	TR24-02-007119			
Unbiased Highly Accelerated Stress Test (UHAST)	Q8025L5TP	77	TR24-02-006871	96 hours at TA=130°C/85%RH.	JESD22-A-118	PASS
	QJ6030LH4TP	77	TR24-03-007594			
	SK055NTP	77	TR24-02-006866			
	Q6016NH4TP	77	TR24-02-007021			
	EC103D1	77	TR24-02-006879			
	SV8012DRP	77	TR24-02-007119			



Temperature Cycling (TC)	Q8025L5TP	77	TR24-02-006871	-55°C&150°C (air to air) Dwell time 15mins, 1000cycles	JESD22-A104	PASS
	QJ6030LH4TP	77	TR24-03-007594			
	SK055NTP	77	TR24-02-006866			
	Q6016NH4TP	77	TR24-02-007021			
	EC103D1	77	TR24-02-006879			
Intermittent Operational Life (IOL)	SV8012DRP	77	TR24-02-007119	TA:25°C, TJ:125°C (ΔTJ=100°C), TON/OFF: 4 minutes, 15,000cycles	MIL-STD-750	PASS
	Q8025L5TP	77	TR24-02-006871			
	QJ6030LH4TP	77	TR24-03-007594			
	SK055NTP	77	TR24-02-006866			
	Q6016NH4TP	77	TR24-02-007021			
Resistance to Solder Heat (RSH)	EC103D1	77	TR24-02-006879	260°C, 10 secs /270°C, 7 secs	JESD22-B-106 /JESD22-A-111	PASS
	SV8012DRP	77	TR24-02-007119			
	Q8025L5TP	30	TR24-02-006871			
	SK055NTP	30	TR24-02-006866			
	Q6016NH4TP	30	TR24-02-007021			
	EC103D1	30	TR24-02-006879			

5.0 Recommendations & Conclusions:

Based on the above qualification test results, Littelfuse concluded the new bare silicon wafer supplier is qualified and certified for Low Power Thyristor Products.

6.0 Appendix I – Affected part number list