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Jan 31th, 2024

[Phase 3] ESW490-42 – IXYS Brand Schottky Diode Discrete Alternative Qual Status

To our valued customers,

Littelfuse would like to notify the completion of Phase 3 IXYS Brand Schottky Diode Alternative Qualification and would like to supply the latest datasheet for the 10 parts in Phase 3 group through Littelfuse Website.

[Discrete Schottky - Littelfuse](#)

All 10 parts 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: There will be changes on alternative parts. Pls refer to latest datasheets.

Part number changes: None

Effective date: Feb 29th, 2024

Replacement products: N/A

Last time buy: N/A

Below is the latest status for the rest of Schottky Diode qualification groups:

	PCN Time	Qualification
Phase 1	Nov-22	Completed
Phase 2	May-23	Completed
Phase 3	Jan-24	Completed
Phase 4	Q3'24	Ongoing

And we will issue EOL letter for 13pcs part numbers which is no WIP and less order, detail products list please refer to attached appendix.

If you have any other questions or concerns, please contact your local sales team or Jessie Zhang, Product Marketing Engineer of Power Bi-polar Discrete (Diode).

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

Thank you very much!

Best Regards,

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[Appendix A: Qualification Report for Phase3 Schottky Diode Discrete Alternative Qual](#)

1.0 Reliability test result summary

Test Item	Sample P/N	Sample QTY	Littelfuse test Ref#	Contents/Conditions	Duration	Result Summary
HTRB	DSA90C200HB	3 x 20	181871	125°C, 200V	1,008hrs	0 failure
T/C	DSA90C200HB	3 x 20	181871	-55 °C /150 °C	100 cycles	0 failure
IOL	DSA90C200HB	3 x 20	181871	ΔTvj=100°C, TON/OFF: 2 minutes	1008 hrs	0 failure
UFAST	DSA90C200HB	3 x 20	181871	130°C, 85% humidity	96hrs	0 failure
HTRB	DSSK60-015A	3 x 20	181581	125°C, 150V	1,008hrs	0 failure
T/C	DSSK60-015A	3 x 20	181581	-55 °C /150 °C	100 cycles	0 failure
IOL	DSSK60-015A	3 x 20	181581	ΔTvj=100°C, TON/OFF: 2 minutes	1008 hrs	0 failure
UFAST	DSSK60-015A	3 x 20	181581	130°C, 85% humidity	96hrs	0 failure
HTRB	DSA70C100HB	1 x 40	TR-23-06-001896	125°C, 100V	1,008hrs	0 failure
T/C	DSA70C100HB	1 x 20	185685	-55 °C /150 °C	100 cycles	0 failure
IOL	DSA70C100HB	1 x 20	185685	ΔTvj=100°C, TON/OFF: 2 minutes	1008 hrs	0 failure
UFAST	DSA70C100HB	1 x 20	185685	130°C, 85% humidity	96hrs	0 failure

2.0 Char test result summary

Test Item	Sample P/N	Sample Qty	Contents/Conditions	Result Summary
Electrical Parameters	DSA90C200HB	3 x 10	IR, VF	Meet datasheet spec
I _{FSM}	DSA90C200HB	3 x 10	T _J = 45°C; t = 10 ms (50 Hz), half sine	
Thermal Resistance	DSA90C200HB	3 x 10	R _{thJC} Junction-to-Case, R _{thCH} Case to Heatsink	
V _{F0,rF}	DSA90C200HB	3 x 10	T _{VJ} = T _{VJM}	
C _J	DSA90C200HB	3 x 10	V _R = 5 V, T _{VJM} = 25°C, f = 1 MHz	
Electrical Parameters	DSSK60-015A	3 x 10	IR, VF	Meet datasheet spec
I _{FSM}	DSSK60-015A	3 x 10	T _J = 45°C; t = 10 ms (50 Hz), half sine	
Thermal Resistance	DSSK60-015A	3 x 10	R _{thJC} Junction-to-Case, R _{thCH} Case to Heatsink	
V _{F0,rF}	DSSK60-015A	3 x 10	T _{VJ} = T _{VJM}	
C _J	DSSK60-015A	3 x 10	V _R = 5 V, T _{VJM} = 25°C, f = 1 MHz	
Electrical Parameters	DSA70C100HB	1 x 10	IR, VF	Meet datasheet spec
I _{FSM}	DSA70C100HB	1 x 10	T _J = 45°C; t = 10 ms (50 Hz), half sine	
Thermal Resistance	DSA70C100HB	1 x 10	R _{thJC} Junction-to-Case, R _{thCH} Case to Heatsink	
V _{F0,rF}	DSA70C100HB	1 x 10	T _{VJ} = T _{VJM}	
C _J	DSA70C100HB	1 x 10	V _R = 5 V, T _{VJM} = 25°C, f = 1 MHz	
Electrical Parameters	DSSK60-02A	1 x 10	IR, VF	Meet datasheet spec
I _{FSM}	DSSK60-02A	1 x 10	T _J = 45°C; t = 10 ms (50 Hz), half sine	
Thermal Resistance	DSSK60-02A	1 x 10	R _{thJC} Junction-to-Case, R _{thCH} Case to Heatsink	
V _{F0,rF}	DSSK60-02A	1 x 10	T _{VJ} = T _{VJM}	
C _J	DSSK60-02A	1 x 10	V _R = 5 V, T _{VJM} = 25°C, f = 1 MHz	
Electrical Parameters	DSSK30-018A	1 x 10	IR, VF	Meet datasheet spec
I _{FSM}	DSSK30-018A	1 x 10	T _J = 45°C; t = 10 ms (50 Hz), half sine	
Thermal Resistance	DSSK30-018A	1 x 10	R _{thJC} Junction-to-Case, R _{thCH} Case to Heatsink	
V _{F0,rF}	DSSK30-018A	1 x 10	T _{VJ} = T _{VJM}	
C _J	DSSK30-018A	1 x 10	V _R = 5 V, T _{VJM} = 25°C, f = 1 MHz	

Electrical Parameters	DSSK50-015A	1 x 10	IR, VF	Meet datasheet spec
I _{FSM}	DSSK50-015A	1 x 10	T _J = 45°C; t = 10 ms (50 Hz), half sine	
Thermal Resistance	DSSK50-015A	1 x 10	R _{thJC} Junction-to-Case, R _{thCH} Case to Heatsink	
V _{F0,rF}	DSSK50-015A	1 x 10	T _{VJ} = T _{VJM}	
C _J	DSSK50-015A	1 x 10	V _R = 5 V, T _{VJM} = 25°C, f = 1 MHz	
Electrical Parameters	DSSK70-008A	1 x 10	IR, VF	Meet datasheet spec
I _{FSM}	DSSK70-008A	1 x 10	T _J = 45°C; t = 10 ms (50 Hz), half sine	
Thermal Resistance	DSSK70-008A	1 x 10	R _{thJC} Junction-to-Case, R _{thCH} Case to Heatsink	
V _{F0,rF}	DSSK70-008A	1 x 10	T _{VJ} = T _{VJM}	
C _J	DSSK70-008A	1 x 10	V _R = 5 V, T _{VJM} = 25°C, f = 1 MHz	
Electrical Parameters	DSA70C200HB	1 x 10	IR, VF	Meet datasheet spec
I _{FSM}	DSA70C200HB	1 x 10	T _J = 45°C; t = 10 ms (50 Hz), half sine	
Thermal Resistance	DSA70C200HB	1 x 10	R _{thJC} Junction-to-Case, R _{thCH} Case to Heatsink	
V _{F0,rF}	DSA70C200HB	1 x 10	T _{VJ} = T _{VJM}	
C _J	DSA70C200HB	1 x 10	V _R = 5 V, T _{VJM} = 25°C, f = 1 MHz	
Electrical Parameters	DSSK50-01A	1 x 10	IR, VF	Meet datasheet spec
I _{FSM}	DSSK50-01A	1 x 10	T _J = 45°C; t = 10 ms (50 Hz), half sine	
Thermal Resistance	DSSK50-01A	1 x 10	R _{thJC} Junction-to-Case, R _{thCH} Case to Heatsink	
V _{F0,rF}	DSSK50-01A	1 x 10	T _{VJ} = T _{VJM}	
C _J	DSSK50-01A	1 x 10	V _R = 5 V, T _{VJM} = 25°C, f = 1 MHz	
Electrical Parameters	DSA70C150HB	1 x 10	IR, VF	Meet datasheet spec
I _{FSM}	DSA70C150HB	1 x 10	T _J = 45°C; t = 10 ms (50 Hz), half sine	
Thermal Resistance	DSA70C150HB	1 x 10	R _{thJC} Junction-to-Case, R _{thCH} Case to Heatsink	
V _{F0,rF}	DSA70C150HB	1 x 10	T _{VJ} = T _{VJM}	
C _J	DSA70C150HB	1 x 10	V _R = 5 V, T _{VJM} = 25°C, f = 1 MHz	

Recommendations & Conclusions

Based on the above qualification test results, Littelfuse concluded new alternative parts can pass the release criterion, meet all the latest datasheet specification and ready to start mass production for affected products.

[Appendix B: Phase3, Phase4 & EOL Schottky Diode Part Number list](#)

Part Number	Disposition	Related Phase	Qual Status
DSA90C200HB	Qualify alternative source	Phase 3	Completed
DSSK60-015A	Qualify alternative source	Phase 3	Completed
DSA70C100HB	Qualify alternative source	Phase 3	Completed
DSSK60-02A	Qualify alternative source	Phase 3	Completed
DSSK30-018A	Qualify alternative source	Phase 3	Completed
DSSK50-015A	Qualify alternative source	Phase 3	Completed
DSSK70-008A	Qualify alternative source	Phase 3	Completed
DSA70C200HB	Qualify alternative source	Phase 3	Completed
DSSK50-01A	Qualify alternative source	Phase 3	Completed
DSA70C150HB	Qualify alternative source	Phase 3	Completed

DSSK80-006B	Qualify alternative source	Phase 4	On-going
DSA60C60HB	Qualify alternative source	Phase 4	On-going
DSA60C45HB	Qualify alternative source	Phase 4	On-going
DSSK80-0025B	Qualify alternative source	Phase 4	On-going
DSA50C100HB	Qualify alternative source	Phase 4	On-going
DSB60C45HB	Qualify alternative source	Phase 4	On-going
DSA50C150HB	Qualify alternative source	Phase 4	On-going
DSSK80-003B	Qualify alternative source	Phase 4	On-going
DSA30C100HB	Qualify alternative source	Phase 4	On-going
DSSK40-0015B	Qualify alternative source	Phase 4	On-going
DSA80C45HB	Qualify alternative source	Phase 4	On-going
DSSK60-0045A	Qualify alternative source	Phase 4	On-going
DSS2X101-015A	Qualify alternative source	Phase 4	On-going
DSS2x101-02A	Qualify alternative source	Phase 4	On-going
DSS2x121-0045B	Qualify alternative source	Phase 4	On-going
DSS2x41-01A	Qualify alternative source	Phase 4	On-going
DSS2x81-0045B	Qualify alternative source	Phase 4	On-going
DSS2x111-008A	Qualify alternative source	Phase 4	On-going
DSS2x61-0045A	Qualify alternative source	Phase 4	On-going
DSS2x61-01A	Qualify alternative source	Phase 4	On-going
DSA240X200NA	Qualify alternative source	Phase 4	On-going
DSA240X150NA	Qualify alternative source	Phase 4	On-going
DSSK80-0045B	Qualify alternative source	Phase 4	On-going
DSSK80-0008D	Qualify alternative source	Phase 4	On-going
DSS60-0045B	Qualify alternative source	Phase 4	On-going
DSS40-0008D	Qualify alternative source	Phase 4	On-going
DSA90C200HR	Qualify alternative source	Phase 4	On-going
DSSK40-008B	EOL		
DSSK40-006B	EOL		
DSSK30-01A	EOL		
DSB80C45HB	EOL		
DSA30C150HB	EOL		
DSSK60-0045B	EOL		
DSB30C45HB	EOL		
DSB60C60HB	EOL		
DSSK70-0015B	EOL		
DSA30C45HB	EOL		
DSB60C30HB	EOL		
DSSK70-003B	EOL		
DSSK50-0025B	EOL		