



Product Change Notification



Product Group: Vishay Siliconix/ SIL-0112018/ May 25, 2018

Additional Commercial Power MOSFET Wafer Fabrication Capacity

DESCRIPTION OF CHANGE: To meet increasing demand for High Voltage Power MOSFET products, Vishay Siliconix has completed the qualification for the expansion of commercial High Voltage MOSFET capacity with foundry partner Founder Microelectronics International Co. Ltd. (FMIC) in Shenzhen, China. FMIC wafer fab contains a 96,000 square-meter clean-room facility which was opened in 2003, and employs highly-skilled wafer production personnel who have been qualified to follow the same quality systems and integration engineering currently supporting Vishay products. FMIC is certified to ISO9001, ISO14001 and TS16949 Quality Management System Certifications.

CLASSIFICATION OF CHANGE: Additional wafer fabrication capacity

REASON FOR CHANGE: Increased High Voltage MOSFET wafer fabrication capacity.

EXPECTED INFLUENCE ON QUALITY/RELIABILITY/PERFORMANCE: No effect on quality, reliability or performance.

PRODUCT CATAGORY: Commercial High Voltage MOSFETs

PART NUMBERS/SERIES/FAMILIES AFFECTED: See page 2 of this PCN

VISHAY BRAND(s): Vishay Siliconix

TIME SCHEDULE: Shipments with products containing FMIC die will begin in August 2018 for those products having completed transfer qualification.

SAMPLE AVAILABILITY: Please contact your regional Vishay Sales office for sample availability. When requesting samples please be sure to reference this PCN number.

PRODUCT IDENTIFICATION: Commercial High Voltage MOSFET products containing FMIC die will have "N" in the 4th character location (e.g. Y83N).

QUALIFICATION DATA: Reliability test data will be available for specific part numbers upon completion of die geometry qualification. Test criteria and results for the platform qualification are listed on page 3 of this PCN.

This PCN is considered approved, without further notification, unless we receive specific customer concerns before August 25, 2018 or as specified by contract.

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ONE OF THE WORLD'S LARGEST MANUFACTURERS OF DISCRETE SEMICONDUCTORS AND PASSIVE COMPONENT

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PCN SIL-0112018 Parts List

IRF820PBF	IRF840LCSPBF	IRFP460APBF
IRF820STRLPBF	IRF840PBF	IRFP460APBF
IRF820STRRPBF	IRF840PBF	IRFP460LCPBF
IRF830ALPBF	IRF840PBF	IRFP460LCPBF
IRF830APBF	IRF840SPBF	IRFP460PBF
IRF830ASPBF	IRF840SPBF	IRFP460PBF
IRF830ASTRLPBF	IRF840STRLPBF	IRFP460PBF
IRF830PBF	IRF840STRLPBF	IRFPS37N50APBF
IRF830PBF	IRF840STRRPBF	IRFR210PBF
IRF830SPBF	IRF840STRRPBF	IRFR420PBF
IRF830SPBF	IRFB11N50APBF	IRFR420TRLPBF
IRF830STRLPBF	IRFB11N50APBF	IRFR420TRPBF
IRF830STRLPBF	IRFC11N50AB	IRFRC20TRLPBF
IRF840ALPBF	IRFC37N50AB	IRFRC20TRPBF
IRF840ALPBF	IRFC430AB	IRFS11N50APBF
IRF840APBF	IRFC450B	IRFS11N50ATTRP
IRF840APBF	IRFC460AB	IRFS11N50ATTRP
IRF840APBF	IRFC840AB	IRFS11N50ATTRP
IRF840ASPBF	IRFI820GPBF	IRFS11N50ATTRP
IRF840ASPBF	IRFI820GPBF	IRFSL11N50APBF
IRF840ASTRLPBF	IRFI840GLCPBF	IRFU210PBF
IRF840ASTRLPBF	IRFI840GLCPBF	IRFU420PBF
IRF840ASTRRPBF	IRFIB7N50APBF	SIHF820STRL-GE3
IRF840ASTRRPBF	IRFIB7N50APBF	SIHF830S-GE3
IRF840LCLPBF	IRFP450APBF	SIHF830S-GE3
IRF840LCLPBF	IRFP450LCPBF	SIHFS11N50ATRL-GE3
IRF840LCPBF	IRFP450PBF	V961-0007-E3
IRF840LCPBF	IRFP450PBF	V961-0007-E3

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Qualification for Wafer Fabrication Technology Transfer

All Wafer Fabrication Technology transfers receive a full qualification based on JEDEC criteria using 3 lots. After a Wafer Fabrication Platform Technology is qualified all subsequent devices released related to this platform technology will have been qualified by *Extension* – 1 lot tested to HTRB, HTGB, and ESD.

Qualification test	Conditions	# of Lots, # of samples per lot	Time Scale Hours/Cycles	Results: samples tested/# of failures	Comments
1a. Solder Reflow Preconditioning	168 hr 85/85 3 cyc @ 250C max				This test shall apply to test 4 to 6
2. HTRB	Ta = 150°C Vds = 80% rating of Vds	3 Lots, 82 samples per lot	1000 Hours	246/0	
3. HTGB	Ta = 150°C Vgs = 100% rating of Vgs	3 Lots, 82 samples per lot	1000 Hours	246/0	
4. Temperature Cycling	-65°C to +150°C air to air	3 Lots, 82 samples per lot	1000 Cycles	246/0	
5. Pressure Pot	+121°C, 15 PSIG	3 Lots, 82 samples per lot	96 Hours	246/0	
6. HAST	+130°C, 85%RH Vgs = 100% rating of Vgs	3 Lots, 82 samples per lot	100 Hours	246/0	
8. ESD	HBM CDM	1 Lot, 10 samples 1 Lot, 10 samples	0 0	10/0 10/0	

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