



# Product Change Notification



Product Group: Vishay Siliconix/February 14, 2014/PCN-SIL-0032014 rev 0

## Additional Commercial Wafer Fabrication Capacity for High Voltage MOSFETS in TO-247 Package

**DESCRIPTION OF CHANGE:** To meet increasing demand for Power MOSFET products in TO247 packages, Vishay Siliconix has completed qualification of wafer fabrication on select commercial High Voltage MOSFET products in the Siliconix wafer fab located in Itzehoe, Germany (VSIG).

Please note that the list of parts below includes parts that are in the current production plan. This PCN covers the notification for all Generation 3 High Voltage MOSFET products produced by Vishay-Siliconix.

**CLASSIFICATION of CHANGE:** Additional wafer fabrication capacity

**EXPECTED INFLUENCE ON QUALITY/RELIABILITY/PERFORMANCE:** There will be no effect on quality, reliability, and/or performance. There will be no changes in minimum and maximum values on the data sheets.

**PRODUCT CATEGORY:** Commercial High Voltage Power MOSFETs

**PART NUMBERS/SERIES/FAMILIES AFFECTED:** See Table 1 on page 2 of this PCN.

**VISHAY BRAND(s):** Vishay Siliconix

**TIME SCHEDULE:** Shipments with products containing VSIG die will begin May, 2014 for those products having completed transfer.

**SAMPLE AVAILABILITY:** Samples of the parts listed in Table 2 will be available February, 2014. Samples of additional part numbers will be available once qualification-for-transfer by part number has completed. Please contact your regional Vishay Sales office for sample availability. When requesting samples please be sure to reference this PCN number.

**QUALIFICATION DATA:** Qualification data begins on page 3 of this PCN.

**PRODUCT IDENTIFICATION:** Products containing VSIG Die will be identified by a C in the 4<sup>th</sup> character position of the part marking date-code.

**This PCN is considered approved, without further notification, unless we receive specific customer concerns before May 14, 2014 or as specified by contract.**

**ISSUED BY:** Don Larson, Vishay Siliconix, Technical Marketing. E-mail address: [Don.larson@Vishay.com](mailto:Don.larson@Vishay.com)

**For further information, please contact your regional Vishay office.**

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**Table 1. Part Number List**

Material
94-2574PBF
IRFP460PBF
V961-0007-E3
94-1730
IRFP450PBF
IRFP460APBF
IRFP450APBF
IRFP22N50APBF
IRFP360PBF
IRFP350PBF

**Table 2. Sample Part List**

Material	Package
IRFP450PBF	TO247
IRFP460PBF	TO247

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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 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 Table for Generation 3 High Voltage MOSFET Wafer Technology Transfer to VSIG Semiconductor and Assembled in TO247 Packages

Test	Qualification test	Conditions	# of Lots, # of samples per lot	Time Scale Hours/Cycles	Results: samples tested/# of failures
0	Visual Inspection	N/A	All Lots	0 hr	
1	HTGB	Ta = 150°C Vgs = 100% rating of Vgs	3 Lots, 80 samples per lot	1000 Hours	240/0
2	HTRB	Ta = 150°C Vds = 100% rating of Vds	3 Lots, 80 samples per lot	1000 Hours	240/0
3	Temperature Cycling	-65°C to +150°C air to air	3 Lots, 55 samples minimum per lot	1000 Cycles	240/0
4	HAST	130 °C, 85%RH, Vds = 42V	3 Lots, 55 samples minimum per lot	100 Hours	375/0
5	Pressure Pot	+121°C, 15 PSIG	3 Lots, 55 samples minimum per lot	96 Hours	215/0
6	DPA	External Visual	1 Lot, 5 samples per lot	N/A	5/0
		Internal Visual	1 Lot, 5 samples per lot		5/0
		Die X-section	1 Lot, 5 samples per lot		5/0
		C-SAM	1 Lot, 5 samples per lot		5/0
7	VRAMP	1V/SEC	1 Lot, 100 samples	Pre/post	100/0
8	ESD	HBM	1 Lot, 10 samples		HBM: 7700V
		MM	1 Lot, 10 samples		MM: 700V
9	Device Characterization	Datasheet	1 Lot, 10 samples per lot		10/0

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