



# Product Change Notification



Product Group: Vishay Siliconix/June 22, 2015 /PCN-SIL-0242015 Rev 0

## Additional Commercial Power MOSFET Wafer Fabrication Capacity

**DESCRIPTION OF CHANGE:** To meet increasing demand for Power MOSFET products, Vishay Siliconix has completed qualification for the transfer of wafer fabrication on commercial 1G P-channel Low Voltage MOSFET products to foundry partner Tower Semiconductor.

Tower Semiconductor has been a subcontracting partner of Vishay Siliconix since 1995. Founded in 1993, Tower Semiconductor is a worldwide supplier for foundry services of wafer manufacturing. Tower Semiconductor is located in Migdal Haemek, Israel, and has achieved ISO-9001, ISO14001 and TS6949 certifications.

**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 Low Voltage Power MOSFETs

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

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

**TIME SCHEDULE:** Shipments of products with wafers manufactured at Tower Semiconductor will begin in September 2015.

**SAMPLE AVAILABILITY:** Samples will be available once extension qualifications are completed. Please contact your regional Vishay Sales office for sample availability.

**QUALIFICATION DATA:** Reliability test reports are available now for platform qualification. Test criteria are listed on page 3 of this PCN. Extension reliability test reports by die geometry will be available once qualification has been completed.

**PRODUCT IDENTIFICATION:** There will be no changes to part marking

**This PCN is considered approved, without further notification, unless we receive specific customer concerns before September 19, 2015 or as specified by contract.**

**ISSUED BY:** Dave MacDonald, Vishay Siliconix, Senior Manager, Technical Marketing.  
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**For further information, please contact your regional Vishay office.**

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Vishay Intertechnology, Inc.

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## Part Number List

SI1077X-T1-GE3	SIA447DJ-T4-GE3
SI1079X-T1-GE3	SIA449DJ-T1-GE3
SI1401EDH-T1-GE3	SIA459EDJ-T1-GE3
SI1441EDH-T1-GE3	SIA477EDJ-T1-GE3
SI1442DH-T1-GE3	SIA483DJ-T1-GE3
SI1443EDH-T1-GE3	SIA527DJ-T1-GE3
SI2323DDS-T1-GE3	SIA817EDJ-T1-GE3
SI2333DDS-T1-GE3	SIA907EDJT-T1-GE3
SI2347DS-T1-GE3	SIA907EDJT-T4-GE3
SI2365EDS-T1-GE3	SIA921EDJ-T1-GE3
SI2369DS-T1-GE3	SIA921EDJ-T4-GE3
SI2371EDS-T1-GE3	SIA923AEDJ-T1-GE3
SI3421DV-T1-GE3	SIA923EDJ-T1-GE3
SI3429EDV-T1-GE3	SIA923EDJ-T4-GE3
SI3443DDV-T1-GE3	SIA929DJ-T1-GE3
SI3477DV-T1-GE3	SIA931DJ-T1-GE3
SI4101DY-T1-GE3	SIA936EDJ-T1-GE3
SI4143DY-T1-GE3	SIA975DJ-T1-GE3
SI5429DU-T1-GE3	SIB441EDK-T1-GE3
SI5471DC-T1-GE3	SIB455EDK-T1-GE3
SI7121ADN-T1-GE3	SIB457EDK-T1-GE3
SI7153DN-T1-GE3	SIS407ADN-T1-GE3
SIA433EDJ-T1-GE3	SIS413DN-T1-GE3
SIA445EDJ-T1-GE3	SIS447DN-T1-GE3
SIA447DJ-T1-GE3	V30432-T1-GE3

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## Qualification for Wafer Fabrication Technology Transfer

All Wafer Fabrication Technology transfers receive a full qualification based on MIL-STD-883 and MIL-STD-750 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 1G Cell Wafer Technology Transfer to Tower Semiconductor

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 through 6
2. HTRB	Ta = 150°C Vds = 80% rating of Vds	3 Lots, 77 samples per lot	168, 500, 1000 Hours	231/0	
3. HTGB	Ta = 150°C Vgs = 100% rating of Vgs	3 Lots, 77 samples per lot	168, 500, 1000 Hours	231/0	
4. Temperature Cycling	-65°C to +150°C air to air	3 Lots, 77 samples per lot	168, 500, 1000 Hours	231/0	
5. Pressure Pot	+121°C, 15 PSIG	3 Lots, 77 samples per lot	96 Hours	165/0	
6. HAST	+130°C, 85%RH Vgs = 100% rating of Vgs	3 Lots, 77 samples per lot	100 Hours	165/0	
7. ESD	HBM CDM	1 Lot, 10 samples 1 Lot, 10 samples	0 0	10/0 10/0	
8. Bond Integrity	>150C Bake	40 wires	0, 250, 500 Hours	10/0 10/0	

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