



# Product Change Notification



Product Group: Vishay Siliconix/ SIL-0412016/ December 16, 2016

## Additional Commercial Power MOSFET Wafer Fabrication Capacity

**DESCRIPTION OF CHANGE:** To meet increasing demand for Low Voltage Power MOSFET products, Vishay Siliconix has completed qualification for the expansion of commercial Low Voltage MOSFET 8-inch wafer capacity to foundry partner Tower-Jazz located in San Antonio, Texas. Tower-Jazz is a wholly-owned subsidiary of Tower Semiconductor, Ltd. The 80,000 square-foot clean-room facility was opened by Maxim Integrated in 2008, and will retain highly-skilled production personnel, quality systems and integration engineering currently supporting Maxim and Vishay. The Tower Texas facility supports advanced analog platforms for die geometries with feature sizes down to 130nm.

Tower Semiconductor has been a wafer foundry partner of Vishay Siliconix since 2005, servicing Vishay's high-volume production with its 6-inch and 8-inch facilities. Founded in 1993, Tower Semiconductor is a worldwide supplier for foundry services of wafer manufacturing. Tower Semiconductor is head-quartered in Migdal Haemek, Israel, and is certified to ISO9001, ISO14001 and TS16949. <http://www.towersemi.com>.

**CLASSIFICATION OF CHANGE:** Wafer Fabrication Location

**REASON FOR CHANGE:** Increased Low Voltage MOSFET manufacturing capacity.

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

**PRODUCT CATEGORY:** Commercial Low Voltage MOSFETs

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

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

**TIME SCHEDULE:** Shipments with products containing Tower Texas die will begin in March 2017 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 Low Voltage MOSFET products containing Tower die will have "K" in the 4<sup>th</sup> character location (e.g. W72K).

**QUALIFICATION DATA:** Qualification data will be available upon completion of transfer qualification testing. Test criteria are listed on page 3 of this PCN.

**This PCN is considered approved, without further notification, unless we receive specific customer concerns before March 16, 2017 or as specified by contract.**

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

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Procedure #



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## PCN SIL-0412016 Parts List

SI2302CDS-T1-E3	SI4320DY-T1-GE3	SI7104DN-T1-GE3	SI7880ADP-T1-GE3	SIR402DP-T1-GE3
SI2302CDS-T1-GE3	SI4368DY-T1-E3	SI7106DN-T1-E3	SI7892BDP-T1-E3	SIR438DP-T1-GE3
SI2302DDS-T1-GE3	SI4368DY-T1-GE3	SI7106DN-T1-GE3	SI7892BDP-T1-GE3	SIR460DP-T1-GE3
SI3424CDV-T1-GE3	SI4430BDY-T1-E3	SI7114DN-T1-E3	SIA400EDJ-T1-GE3	SIR462DP-T1-GE3
SI3456DDV-T1-E3	SI4430BDY-T1-GE3	SI7114DN-T1-GE3	SIA432DJ-T1-GE3	SIR464DP-T1-GE3
SI3456DDV-T1-GE3	SI4501BDY-T1-GE3	SI7336ADP-T1-E3	SIA432DJ-T4-GE3	SIR466DP-T1-GE3
SI4128DY-T1-E3	SI4626ADY-T1-GE3	SI7336ADP-T1-GE3	SIA466EDJ-T1-GE3	SIR470DP-T1-GE3
SI4128DY-T1-GE3	SI4634DY-T1-E3	SI7634BDP-T1-E3	SIA472EDJ-T1-GE3	SIR474DP-T1-GE3
SI4134DY-T1-E3	SI4634DY-T1-GE3	SI7634BDP-T1-GE3	SIA517DJ-T1-GE3	SIR800DP-T1-GE3
SI4134DY-T1-GE3	SI4714DY-T1-GE3	SI7636DP-T1-E3	SIA517DJ-T1-GE3	SIR862DP-T1-GE3
SI4156DY-T1-GE3	SI4840BDY-T1-E3	SI7636DP-T1-GE3	SIA517DJ-T4-GE3	SIR874DP-T1-GE3
SI4160DY-T1-GE3	SI4840BDY-T1-GE3	SI7658ADP-T1-GE3	SIA517DJ-T4-GE3	SIS402DN-T1-GE3
SI4162DY-T1-GE3	SI4842BDY-T1-E3	SI7716ADN-T1-GE3	SIE802DF-T1-E3	SIS402DN-T1-GE3
SI4164DY-T1-GE3	SI4842BDY-T1-GE3	SI7788DP-T1-GE3	SIE802DF-T1-GE3	SIS406DN-T1-GE3
SI4166DY-T1-GE3	SI4936CDY-T1-E3	SI7848BDP-T1-E3	SIE808DF-T1-E3	SIS412DN-T1-GE3
SI4174DY-T1-GE3	SI4936CDY-T1-GE3	SI7848BDP-T1-GE3	SIE808DF-T1-GE3	SIZ346DT-T1-GE3
SI4186DY-T1-GE3	SI5458DU-T1-GE3	SI7868ADP-T1-E3	SIR158DP-T1-GE3	V30329-T1-E3
SI4204DY-T1-GE3	SI5468DC-T1-GE3	SI7868ADP-T1-GE3	SIR164DP-T1-GE3	V30408-T1-GE3
SI4320DY-T1-E3	SI7104DN-T1-E3	SI7880ADP-T1-E3	SIR166DP-T1-GE3	V30421-T1-GE3

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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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