



Product Group: Vishay Siliconix/ SIL-0172018/ September 12, 2018

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 highvolume 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. <u>http://www.towersemi.com</u>.

CLASSIFICATION OF CHANGE: Wafer Fabrication Location

REASON FOR CHANGE: Increased Low Voltage MOSFET manufacturing capacity.

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

PRODUCT CATAGORY: 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 once 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 4th character location (e.g. W95K).

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 December 12, 2018 or as specified by contract.

ISSUED BY: Dave MacDonald, Vishay Siliconix, Senior Manager Product Marketing Email address: <u>Dave.macdonald@Vishay.com</u>

For further information, please contact your regional Vishay office.

The Americas

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Vishay Intertechnology, Inc.

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







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PCN SIL-0172018 Parts List

SI1308EDL-T1-GE3	SI7629DN-T1-GE3-S		
SI2338DS-T1-GE3	SI7633DP-T1-GE3		
SI2365EDS-T1-GE3	SI7686DP-T1-E3		
SI3407DV-T1-GE3	SI7686DP-T1-GE3		
SI3457CDWF	SI7938DP-T1-GE3		
SI4114DY-T1-E3	SI7998DP-T1-GE3		
SI4114DY-T1-GE3	SIA427DJ-T1-GE3-A		
SI4136DY-T1-GE3	SIA427DJ-T4-GE3		
SI4214DDY-T1-E3	SIA445EDJ-T1-GE3		
SI4214DDY-T1-GE3	SIA465EDJ-T1-GE3		
SI4431CDWF	SIA527DJ-T1-GE3		
SI4483ADY-T1-GE3	SIA537EDJ-T1-GE3		
SI4485DY-T1-GE3	SIA910EDJ-T1-GE3		
SI4491EDY-T1-GE3	SIA923AEDJ-T1-GE3		
SI4554DY-T1-GE3	SIA923EDJ-T1-GE3		
SI4564DY-T1-GE3	SIA923EDJ-T4-GE3		
SI4686DY-T1-E3	SIE810DF-T1-E3		
SI4686DY-T1-GE3	SIE810DF-T1-GE3		
SI7112DN-T1-E3	SIR403EDP-T1-GE3		
SI7112DN-T1-GE3	SIR414DP-T1-GE3		
SI7114ADN-T1-GE3	SIR426DP-T1-GE3		
SI7135DP-T1-GE3	SIR440DP-T1-GE3		
SI7139DP-T1-GE3	SIS407ADN-T1-GE3		
SI7149ADP-T1-GE3	SIS407DN-T1-GE3		
SI7234DP-T1-GE3	SIS454DN-T1-GE3		
SI7288DP-T1-GE3	SIS454DN-T1-GE3-H		
SI7328DN-T1-E3	SIS472DN-T1-GE3		
SI7328DN-T1-GE3	SISS23DN-T1-GE3		
SI7463ADP-T1-GE3	SIZ710DT-T1-GE3		
SI7540ADP-T1-GE3	SIZ710DT-T1-GE3-A		
SI7540ADP-T1-GE3-H	SUD50N04-8M8P-4GE3		
SI7615DN-T1-GE3	SUD50P04-08-GE3		
SI7629DN-T1-GE3	V30405-T4-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	10/0 10/0	

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