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Vishay Siliconix Announces New Material of Solder Paste for Commercial Power MOSFETs in PowerPAK® SO-8 and SO-8 Package (update the subject of PCN-SIL-018-2023-REV-0)

For further information, please contact your regional Vishay office.

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Description of Change: To continue the supply of target commercial power MOSFETs, Vishay Siliconix announces the new solder paste, Pb95Sn5, is adopted in PowerPAK® SO-8 and SO-8 package to replace the original material, Pb88Sn10Ag2, for the yield improvement.

Classification of Change: Yield Improvement

Expected Influence on Quality/Reliability/Performance: will be no effect on quality, reliability, performance, and the minimum/maximum values in the datasheet. The material composition of Die-Attach will be changed accordingly as shown in the following page.

Part Numbers/Series/Families Affected: Please see materials list on the succeeding page.

Vishay Brand(S): Vishay Siliconix

Time Schedule:

Start Shipment Date: Fri Aug 11, 2023

Sample Availability: Please contact your regional Vishay Sales office for sample availability.

Product Identification: There will be no change to part numbering.

Qualification Data: Available upon the completion of transfer qualification testing.

This PCN is considered approved, without further notification, unless we receive specific customer concerns before Wed Aug 9, 2023 or as specified by contract.

Issued By: Andrew Tsai, andrew.tsai@vishay.com



Product Change Notification



Product Group: SIL/Wed Jun 7, 2023/PCN-SIL-018-2023-REV-1

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SI7135DP-T1-GE3	SI7137DP-T1-GE3	SI7139DP-T1-GE3	SI7141DP-T1-GE3	SI7143DP-T1-GE3
SI7143DP-T1-GE3-D	SI7145DP-T1-GE3	SI7149ADP-T1-GE3	SI7149DP-T1-GE3	SI7155DP-T1-GE3
SI7157DP-T1-GE3	SI7164DP-T1-GE3	SI7172ADP-T1-RE3	SI7174DP-T1-GE3	SI7178DP-T1-GE3
SI7190ADP-T1-RE3	SI7192DP-T1-GE3	SI7336ADP-T1-E3	SI7336ADP-T1-GE3	SI7386DP-T1-E3
SI7386DP-T1-GE3	SI7390DP-T1-E3	SI7390DP-T1-GE3	SI7434ADP-T1-RE3	SI7450DP-T1-RE3
SI7454DDP-T1-GE3	SI7454FDP-T1-RE3	SI7456CDP-T1-GE3	SI7456DDP-T1-GE3	SI7463ADP-T1-GE3
SI7469ADP-T1-RE3	SI7633DP-T1-GE3	SI7634BDP-T1-E3	SI7634BDP-T1-GE3	SI7658ADP-T1-GE3
SI7686DP-T1-E3	SI7686DP-T1-GE3	SI7742DP-T1-GE3	SI7772DP-T1-GE3	SI7788DP-T1-GE3
SI7848BDP-T1-E3	SI7848BDP-T1-GE3	SI7858ADP-T1-E3	SI7858ADP-T1-GE3	SI7858BDP-T1-GE3
SI7862ADP-T1-E3	SI7862ADP-T1-GE3	SI7868ADP-T1-E3	SI7868ADP-T1-GE3	SI7880ADP-T1-E3
SI7880ADP-T1-GE3	SI7892BDP-T1-E3	SI7892BDP-T1-GE3	SIR104ADP-T1-RE3	SIR104DP-T1-RE3
SIR104LDP-T1-RE3	SIR106ADP-T1-RE3	SIR106DP-T1-RE3	SIR108DP-T1-RE3	SIR112DP-T1-RE3
SIR120DP-T1-RE3	SIR122DP-T1-RE3	SIR122LDP-T1-RE3	SIR124DP-T1-RE3	SIR1309DP-T1-GE3
SIR140DP-T1-RE3	SIR150DP-T1-RE3	SIR158DP-T1-GE3	SIR158DP-T1-RE3	SIR164ADP-T1-GE3
SIR164DP-T1-GE3	SIR164DP-T1-RE3	SIR165DP-T1-GE3	SIR166DP-T1-GE3	SIR167DP-T1-GE3
SIR170DP-T1-RE3	SIR178DP-T1-RE3	SIR180ADP-T1-RE3	SIR180DP-T1-RE3	SIR182DP-T1-RE3
SIR182LDP-T1-RE3	SIR184DP-T1-RE3	SIR184LDP-T1-RE3	SIR186DP-T1-RE3	SIR186LDP-T1-RE3
SIR188DP-T1-RE3	SIR188LDP-T1-RE3	SIR401DP-T1-GE3	SIR402DP-T1-GE3	SIR404DP-T1-GE3
SIR410DP-T1-GE3	SIR414DP-T1-GE3	SIR416DP-T1-GE3	SIR418DP-T1-GE3	SIR422DP-T1-GE3
SIR424DP-T1-GE3	SIR426DP-T1-GE3	SIR438DP-T1-GE3	SIR440DP-T1-GE3	SIR450DP-T1-RE3
SIR4602LDP-T1-RE3	SIR4604DP-T1-GE3	SIR4604LDP-T1-GE3	SIR4608DP-T1-GE3	SIR4608LDP-T1-GE3
SIR460DP-T1-GE3	SIR462DP-T1-GE3	SIR464DP-T1-GE3	SIR466DP-T1-GE3	SIR470DP-T1-GE3
SIR470DP-T1-GE3-Z	SIR474DP-T1-GE3	SIR474DP-T1-RE3	SIR500DP-T1-RE3	SIR5102DP-T1-RE3
SIR510DP-T1-RE3	SIR512DP-T1-RE3	SIR514DP-T1-RE3	SIR516DP-T1-RE3	SIR5708DP-T1-RE3
SIR570DP-T1-RE3	SIR5710DP-T1-RE3	SIR572DP-T1-RE3	SIR574DP-T1-RE3	SIR576DP-T1-RE3
SIR578DP-T1-RE3	SIR5802DP-T1-RE3	SIR580DP-T1-RE3	SIR582DP-T1-RE3	SIR584DP-T1-RE3
SIR586DP-T1-RE3	SIR588DP-T1-RE3	SIR606BDP-T1-RE3	SIR606DP-T1-GE3	SIR608DP-T1-RE3
SIR610DP-T1-RE3	SIR622DP-T1-GE3	SIR622DP-T1-RE3	SIR624DP-T1-GE3	SIR624DP-T1-RE3
SIR626ADP-T1-RE3	SIR626DP-T1-RE3	SIR626LDP-T1-RE3	SIR632DP-T1-RE3	SIR638ADP-T1-RE3
SIR638DP-T1-GE3	SIR638DP-T1-RE3	SIR640ADP-T1-GE3	SIR662DP-T1-GE3	SIR664DP-T1-GE3
SIR668ADP-T1-RE3	SIR668DP-T1-RE3	SIR670DP-T1-GE3	SIR680ADP-T1-RE3	SIR680DP-T1-RE3
SIR680LDP-T1-RE3	SIR681DP-T1-RE3	SIR688DP-T1-GE3	SIR688DP-T1-GE3-Z	SIR690DP-T1-GE3
SIR690DP-T1-RE3	SIR692DP-T1-RE3	SIR696DP-T1-GE3	SIR800ADP-T1-GE3	SIR800ADP-T1-RE3
SIR800DP-T1-GE3	SIR800DP-T1-RE3	SIR804DP-T1-GE3	SIR818DP-T1-GE3	SIR820DP-T1-GE3
SIR826ADP-T1-GE3	SIR826BDP-T1-RE3	SIR826DP-T1-GE3	SIR826DP-T1-RE3	SIR826LDP-T1-RE3
SIR836DP-T1-GE3	SIR846ADP-T1-GE3	SIR846ADP-T1-RE3	SIR846BDP-T1-RE3	SIR846DP-T1-GE3
SIR862DP-T1-GE3	SIR870ADP-T1-GE3	SIR870ADP-T1-RE3	SIR870BDP-T1-RE3	SIR870DP-T1-GE3
SIR871DP-T1-GE3	SIR872ADP-T1-GE3	SIR872ADP-T1-RE3	SIR872DP-T1-GE3	SIR873DP-T1-GE3
SIR876ADP-T1-GE3	SIR876BDP-T1-RE3	SIR878BDP-T1-RE3	SIR880ADP-T1-GE3	SIR880BDP-T1-RE3
SIR880DP-T1-GE3	SIR882ADP-T1-GE3	SIR882BDP-T1-RE3	SIR882DP-T1-GE3	SIRA00DP-T1-GE3
SIRA00DP-T1-RE3	SIRA01DP-T1-GE3	SIRA02DP-T1-GE3	SIRA04DP-T1-GE3	SIRA04DP-T1-GE3-L
SIRA06DP-T1-GE3	SIRA10DP-T1-GE3	SIRA10DP-T1-GE3-AR	SIRA10DP-T1-GE3-G	SIRA10DP-T1-GE3-L
SIRA12DP-T1-GE3	SIRA12DP-T1-GE3-G	SIRA12DP-T1-GE3-L	SIRA12DP-T1-GE3-U	SIRA14DP-T1-GE3
SIRA14DP-T1-GE3-G	SIRA14DP-T1-GE3-U	SIRA18ADP-T1-GE3	SIRA18ADP-T1-GE3-U	SIRA18DP-T1-GE3
SIRA18DP-T1-GE3-G	SIRA18DP-T1-RE3	SIRA20DP-T1-RE3	SIRA22DP-T1-RE3	SIRA24DP-T1-GE3
SIRA26DP-T1-RE3	SIRA32DP-T1-RE3	SIRA36DP-T1-GE3	SIRA50ADP-T1-RE3	SIRA50DP-T1-RE3
SIRA52ADP-T1-RE3	SIRA52DP-T1-GE3	SIRA52DP-T1-RE3	SIRA54DP-T1-GE3	SIRA58ADP-T1-RE3
SIRA58DP-T1-GE3	SIRA60DP-T1-GE3	SIRA60DP-T1-RE3	SIRA62DP-T1-RE3	SIRA64DP-T1-GE3
SIRA64DP-T1-RE3	SIRA64DP-T1-RE3-L	SIRA66DP-T1-GE3	SIRA72DP-T1-GE3	SIRA74DP-T1-GE3
SIRA80DP-T1-RE3	SIRA80DP-T1-RE3-L	SIRA84DP-T1-GE3	SIRA84DP-T1-GE3-L	SIRA88DP-T1-GE3
SIRA88DP-T1-GE3-G	SIRA88DP-T1-GE3-L	SIRA90DP-T1-GE3	SIRA90DP-T1-RE3	SIRA99DP-T1-GE3
SIRC04DP-T1-GE3	SIRC06DP-T1-GE3	SIRC10DP-T1-GE3	SIRC16DP-T1-GE3	SIRC16DP-T1-RE3
SIRC16DP-T1-RE3-Z	SIRC18DP-T1-GE3	V30408-T1-GE3	V30412-T1-GE3	V30421-T1-GE3
V30433-T1-GE3	V30437-T1-GE3	V30447-T1-GE3	SI7234DP-T1-GE3	SI7252ADP-T1-GE3
SI7252DP-T1-GE3	SI7272DP-T1-GE3	SI7288DP-T1-GE3	SI7938DP-T1-GE3	SI7994DP-T1-GE3
SI7997DP-T1-GE3	SIRB40DP-T1-GE3	SI7998DP-T1-GE3	SI4038DY-T1-GE3	SI4056ADY-T1-GE3



Product Change Notification



Product Group: SIL/Wed Jun 7, 2023/PCN-SIL-018-2023-REV-1

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SI4056DY-T1-GE3	SI4062DY-T1-GE3	SI4122DY-T1-GE3	SI4126DY-T1-GE3	SI4136DY-T1-GE3
SI4151DY-T1-GE3	SI4154DY-T1-GE3	SI4156DY-T1-GE3	SI4160DY-T1-GE3	SI4162DY-T1-GE3
SI4164DY-T1-GE3	SI4166DY-T1-GE3	SI4168DY-T1-GE3	SI4174DY-T1-GE3	SI4186DY-T1-GE3
SI4190ADY-T1-GE3	SI4368DY-T1-E3	SI4368DY-T1-GE3	SI4386DY-T1-E3	SI4386DY-T1-GE3
SI4408DY-T1-E3	SI4408DY-T1-GE3	SI4425DDY-T1-GE3	SI4425FDY-T1-GE3	SI4430BDY-T1-E3
SI4430BDY-T1-GE3	SI4434ADY-T1-GE3	SI4442DY-T1-E3	SI4442DY-T1-GE3	SI4456DY-T1-E3
SI4456DY-T1-GE3	SI4459ADY-T1-GE3	SI4459BDY-T1-GE3	SI4477DY-T1-GE3	SI4497DY-T1-GE3
SI4626ADY-T1-E3	SI4626ADY-T1-GE3	SI4630DY-T1-E3	SI4630DY-T1-GE3	SI4634DY-T1-E3
SI4634DY-T1-GE3	SI4686DY-T1-E3	SI4686DY-T1-GE3	SI4838BDY-T1-GE3	SI4838DY-T1-E3
SI4838DY-T1-GE3	SI4840BDY-T1-E3	SI4840BDY-T1-GE3	SI4842BDY-T1-E3	SI4842BDY-T1-GE3
SI4862DY-T1-E3	SI4864DY-T1-E3	SI4864DY-T1-GE3	SI4866DY-T1-E3	SI4866DY-T1-GE3
SI4202DY-T1-GE3	SI4204DY-T1-GE3	SI4288DY-T1-GE3	SI4564DY-T1-GE3	



Product Change Notification



Product Group: Vishay Siliconix, PCN-SIL-018-2023-REV-0

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

The material composition of Die-Attach will be changed accordingly as shown below:

Example of SIR668ADP-T1-RE3 (**PowerPAK SO-8**):

	Substance	CAS Number	Weight of Substance (mg)	With Respect to Homogenous Material (ppm)	With Respect to Total Product Weight (%)
Before	Lead*	7439-92-1	2.64000	880000	2.59 %
	Tin	7440-31-5	0.30000	100000	0.29 %
	Silver	7440-22-4	0.06000	20000	0.06 %
After	Lead*	7439-92-1	2.85000	950000	2.79 %
	Tin	7440-31-5	0.15000	50000	0.15 %
	Silver	7440-22-4	0.00000	0	0.00 %

*ROHS Exemptions Used: 7(a)

Example of SI4147DY-T1-GE3 (**SO-8**):

	Substance	CAS Number	Weight of Substance (mg)	With Respect to Homogenous Material (ppm)	With Respect to Total Product Weight (%)
Before	Lead*	7439-92-1	11.61600	880000	12.20 %
	Tin	7440-31-5	1.32000	100000	1.39 %
	Silver	7440-22-4	0.26400	20000	0.28 %
After	Lead*	7439-92-1	12.54000	950000	13.17 %
	Tin	7440-31-5	0.66000	50000	0.69 %
	Silver	7440-22-4	0.00000	0	0.00 %

*ROHS Exemptions Used: 7(a)

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Procedure #