Doc No.: CN-00317 Rev.: A

ALPHA & OMEGA SEMICONDUCTOR

Release Date: 2013-08-21

TITLE: Additional vendor of the epoxy for AO3401A(L) RELEASE DATE: 2013-08-21 OWNER DEPARTMENT: Product & Test REVISION HISTORY (The original approval sheet is kept in DCC) REVISION RELEASE DATE AUTHOR DESCRIPTION OF CHANGES A 2013-08-21 Weiwei Liu original Image: Colspan="2">Image: Colspan="2">Image: Colspan="2">Colspan="2" REVISION RELEASE AUTHOR DESCRIPTION OF CHANGES Colspan="2">Colspan="2" A 2013-08-21 Weiwei Liu Original Colspan="2" Colspan="2" Colspan="2" Colspan="2" Colspan="2" Colspan="2" Colspan="2" Colspan="2



PROCESS CHANGE NOTIFICATION

Additional vendor of the epoxy for	DCN #	CNI 002174
AO3401A(L)	PCN #	CN-00517A

Dear Valued Customer,

This letter and attached Product Change Notification (PCN) are to inform you of changes to a product that you have purchased within the last two years.

In order to have an additional vendor for same material and can maintain competitive lead times and "on time' delivery, AOS has qualified a new vendor of the epoxy for AO3401A(L).

Please acknowledge receipt of this PCN within 30 days by signing in at <u>http://www.aosmd.com/quality/pcn</u> or sending the enclosed Acknowledgement Form to your local AOS Sales Representative.

Lack of acknowledgement of the PCN within 30 days constitutes acceptance of the change.

If you have any questions regarding this change notice, please contact your local AOS Sales Representative. http://www.aosmd.com/contact

Sincerely,

EC Wong Vice President of Quality Alpha and Omega Semiconductor



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Process Change Notification

PRODUCT CATE	CGORY		PRODUCT(S) AFFECTED		
MOSFET		Please refer the affected part list at the end of this F		nis PCN.	
TYPE OF CHANGE					
Material					
DESCRIPTION O	F CHANGE				
Original epoxy is 8	4-1 from Henkel.				
New epoxy is H98	18 from Namics.				
REASON FOR CI	HANGE				
Add additional ve	ndor (second source)) for same	e material.		
SAMPLE AVAIL	IBILITY		FIRST SHIP DATE		
Available					
(To obtain samples	s or production devices	s, please	Jan. 20 th 2014 or earlier up	on customer approva	ıl.
contact your AOS S	Sales Representative).				
METHOD OF ID	ENTIFICATION				
Start from Date Co	de: 14B'.				
IMPACT OF CH	NGE				
Form: None,					
Fit: None					
Function: None					
Environment Nor	1e				
QUALIFICATION	N / RELIABILITY D	ATA:			
1. Reliability test	result				
		Rel	iability test result		
Test I	tem		Test Condition	Sample Size	Result
	Solder reflow	8	35(±3)%RH, 85(±2)°C	77x6+	Pass
-	precondition(*)	168($\frac{+5/-0)hrs + 3cycle reflow}{500cycles}$	55x3	
	Temperature Cycle	-65(+0	+0/-10)°C to +150(+15/-0)°C 77x3 air to air; 20mins/cycle		Pass
Reliability test	()	a			
	Pressure Pot (**) 121(=		$(2)^{\circ}C, P= 2 \text{ atm, RH}=100\%$	77x3	Pass
			96hrs		
	HAST (**)	13	30(±2)°C, 85(±5)%RH, Vbr=80%Vbrmax	55x3	Pass
Notes	*In compliance with JEDEC MSL Level 1 (260C)				
1000	**Solder reflow precondition is required prior to the test				



2. Thermal Resistance comparison

Thermal Characteristics							
Parameter		Symbol	Тур	Original	New	Max	Units
Maximum Junction-to-Ambient ^A	t ≤ 10s	Р	70	73	67	90	°C/W
Maximum Junction-to-Ambient AD	Steady-State	$\kappa_{\theta JA}$	100	99	94	125	°C/W

New epoxy's thermal resistance performance a little better than original one's and is well within specification.

PCN RESPONSE:	AOS CONTACTS:
Please acknowledge receipt of this PCN within 30	Please contact your local AOS Sales Representative
days of delivery	http://www.aosmd.com/contact/
Lack of acknowledgement of the PCN within 30	
days constitutes acceptance of the change.	
	QRU-00022-02(c)



Acknowledgement of Process Change Notification

(Filled by the customer)

Confirming the Receipt of the PCN	
PCN #:	
Receiving date (YY/MM/DD):	
Receiver:	
Department / Title of the receiver:	
Signature / Stamp:	
Customer Request	
Sample request	Quantity:
Requirement of qualification data:	
Approval of the Change	
Approve	Disapprove
Reason of disapproval:	
Approver:	
Department / Title of the approver:	
Signature / stamp:	

QRU-00022-02(c)



Appendix: Affected Product List

Part number	Estimated sample available date	Estimated completion date of qualification	Remark
AO3401A	Available	Completed	
AO3401AL	Available	Completed	