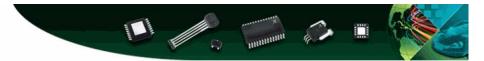




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Product/Process Change Notification (PCN)						
Customer: Digi-Key	Date: 01/02/2018					
Customer Part # and/or Lot# affected: A4931METTR-T						
Originator: Scott Mitti	Phone: 508-854-5627					
Duration of Change:	Permanent X Temporary (explain)					
Summary description of change : Par	rt Change: X Other:					
(PSL), Bloomington, MN, USA, utilizin	31METTR-T at wafer fab, Polar Semiconductor LLC g 8" ABCD5 technology. Allegro will be changing wafer hnology wafer line at United Microelectronics Corporation					
What is the part or process changing	g from (provide details)?					
Allegro currently manufactures the A493 (PSL), Bloomington, MN, USA, utilizin	31METTR-T at wafer fab, Polar Semiconductor LLC g 8" ABCD5 technology.					
What is the part or process changing form, fit and/or function)?	g to (describe the anticipated impact of this change on					
	ufacturing for A4931METTR-T to the 8" ABCD5 ectronics Corporation (UMC), Hsinshu, Taiwan.					
Note: Validation of equivalen Customer	ce within a specific application is at the discretion of the					





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Is a PPAP update required?	Yes	No X
Is reliability testing required? (If Yes. refer to attached plan)	Yes X	No (explain)



Reliability Qualification Results

 Device:
 4931 (966411)
 Package:
 ET (5x5 MLP)

 Assy Lot #:
 1732564LAAA
 Assembly Location:
 Carsem

 Number of Leads:
 28
 Lead Finish:
 100% Sn

 Fab Location:
 UMC
 Tracking Number:
 4104

Reason for Qualification: 4931 - (966411) - 3-Phase Brushless DC Motor Pre-Driver

Reliability Qualification Results						
4931, STR#4104					Requirements	
Stress Test	Abv.	Test #	Test Method	Test Conditions	s.s.	Results
HAST	HAST	A2	JESD22-A110	130°C, 2 ATM, 60% RH, 0, 96 hrs	77	0 Rejects
High Temperature Operating Life	HTOL	B1	JESD22-A108	125°C, 0, 168 hrs	77	0 Rejects
Electrostatic Discharge Human Body Model (STR#4047)	НВМ	E2	JESD22-A114	Test Conditions, Sampling Size are defined in the Test Method		Classification 1C, HBM = 1.5kV
Electrostatic Discharge Charged Device Model	CDM	E3	JESD22-C101	Test Conditions, Sampling Size are defined in the Test Method		Classification = C3, >1kV
Latch-Up (STR#4047)	LU	E4	JESD78	Test Conditions, Sampling Size are defined in the Test Method		Class II, Level A
Electrical Distributions	ED	E5	AEC Q100-009	Tri-Temp Electrical Distributions - 30 pcs.		0 Rejects; Cpk>1.67

This device qualification is considered to be passing all environmental stress evaluations per the Allegro MicroSystems qualification specifications.

Approved by:

<u>Robert Demers</u>
Robert Demers
Sr. Product Safety and Reliability
Allegro MicroSystems, LLC

Allegro MicroSystems, LLC Proprietary





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Expected completion date for internal qualification: Complete										
Expected PPAP availability date: N/A Target implementation date: June 2018 Estimated date of first shipment: July 2018										
						Expected sample availability date: Available Upon Request				
						Yes		Date Required:		
Customer Approval Required: No	Х	Notification Only								
Please note: It is our intention to inform our customer of changes as early as possible. Under Allegro's procedure for product/process change notification, Allegro strives, based on its technical judgment, to provide notification of significant changes that may affect form, fit or function. However, as Allegro cannot ensure evaluation of product/process changes for each and every application; the customer retains responsibility to validate the impact of a change on its application suitability. If samples are needed for validation of a change, requests may be made via the contact information provided herein. Please contact your Account Manager or local Sales contact for any questions. We would kindly request your consideration so we can meet our target date for implementation. Unless both parties agree to extend the implementation date, this change will be implemented as scheduled.										
Customer comments/Conditions of Acceptance:										
Approved by: I cc: Allegro Sales/Marketing/Quality	Date:	Title:								