



Initial Product/Process Change Notification

Document #: IPCN24793X

Issue Date: 29 Jun 2022

Title of Change:	Wafer top metal change and Au to Cu wire conversion for SOD123 CCR Parts.	
Proposed First Ship date:	01 Apr 2023 or earlier if approved by customer	
Contact Information:	Contact your local onsemi Sales Office or Jonney.Hu@onsemi.com	
PCN Samples Contact:	Contact your local onsemi Sales Office. Sample requests are to be submitted no later than 30 days from the date of first notification, Initial PCN or Final PCN, for this change. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.	
Type of Notification:	This is an Initial Product/Process Change Notification (IPCN) sent to customers. An IPCN is an advance notification about an upcoming change and contains general information regarding the change details and devices affected. It also contains the preliminary reliability qualification plan. The completed qualification and characterization data will be included in the Final Product/Process Change Notification (FPCN). This IPCN notification will be followed by a Final Product/Process Change Notification (FPCN) at least 90 days prior to implementation of the change. In case of questions, contact < PCN.Support@onsemi.com >	
Marking of Parts/ Traceability of Change:	Changed material will be identified by date code	
Change Category:	Assembly Change, Wafer Fab Change	
Change Sub-Category(s):	Material Change	
Sites Affected:		
onsemi Sites	External Foundry/Subcon Sites	
Leshan Phoenix Semiconductor, China	None	
onsemi Roznov, Czech Republic		
Description and Purpose:		
This initial notification announces onsemi Leshan, China factory SOD123 CCR (Constant Current Regulator) device change to Pb-doped cu wire, and the related wafer top metal thickness will change to 20KA.		
At the expiration of this PCN, devices will be assembled with 0.8mil Pd-doped Cu wire at onsemi existing Leshan facility.		
	Before Change Description	After Change Description
Bond Wire	WIRE GOLD 0.0008 DIAMETER	0.8mil Pd-doped Cu wire
Wafer top metal	15KA AlCu	20KA AlCu for better quality
There is no product marking change as a result of this change.		



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Qualification Plan:

QV DEVICE NAME: NSV45030AT1G

RMS: Pending Raised

PACKAGE: SOD123

Test	Specification	Condition	Interval
HTOL	JESD22-A108	TA=125C, bias at 1.2X Nominal (not to exceed Max rated)	1008 hrs
HTSL	JESD22-A103	Ta =Max rate storage temp for device	2016 hrs
HAST+PC	JESD22-A110	Temp = 130C, 85% RH, ~ 18.8 psig, bias = 80% of rated V or 100V max	192 hrs
TC+PC	JESD22-A104	Temp = -55°C to +150°C; for 1000 cycles	1000 cycles
UHAST+ PC	JESD22-A118	Temp = 130C, RH=85%, ~ 18.8 psig	96 hours
RSH	JESD22- B106	Ta = 265C, 10 sec	

Estimated date for qualification completion: **30 November 2022**

List of Affected Parts:

Note: Only the standard (off the shelf) part numbers are listed in the parts list. Any custom parts affected by this PCN are shown in the customer specific PCN addendum in the PCN email notification, or on the [PCN Customized Portal](#).

Part Number	Qualification Vehicle
NSI50010YT1G	NSV45030AT1G
NSI45030T1G	NSV45030AT1G
NSI45030AT1G	NSV45030AT1G
NSI45025T1G	NSV45030AT1G
NSI45025AT1G	NSV45030AT1G
NSI45020T1G	NSV45030AT1G
NSI45020AT1G	NSV45030AT1G
NSI45015WT1G	NSV45030AT1G