



INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION #16572Generic Copy

Issue Date: 01-Feb-2011**TITLE:** Dual source LM317 and NCV317 in EPI44 and ON50 process technology**PROPOSED FIRST SHIP DATE:** 15 Jun 2011**AFFECTED CHANGE CATEGORY(S):** Wafer Fab Process**FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:**Contact your local ON Semiconductor Sales Office or <Jaroslav.Supina@onsemi.com>**NOTIFICATION TYPE:**

Initial Product/Process Change Notification (IPCN)

First change notification sent to customers. IPCNs are issued at least 120 days prior to implementation of the change. An IPCN is 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.

DESCRIPTION AND PURPOSE:

This is an Initial PCN to notify customers of the qualification of LM317 and NCV317 product families in the ON50 wafer fabrication process technology. ON50 is the latest ON Semiconductor bipolar technology using 6" wafers and is located in the existing wafer fab facilities at ON Semiconductor Roznov, Czech Republic. The ON50 process line will become the primary die source of these products in order to increase the potential capacity for these product lines.

Customer Samples will be available at the issuance of the Final PCN. The Final PCN is expected to be published in March 2011.


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QUALIFICATION PLAN:

Estimated Date for Qualification Completion: 02/28/2011

Samples should be available after completion of Qualification.

TO220 package

AEC #	Test	Ref.	Test Conditions	Accept	Read points	Minimum Sample Size	# of Lots	Total Units	End Point Requirements	Comments
	Electrical Test	ON Product Spec	ON Product Spec	c = 0	See below	All devices				
B1	HTOL	JA108	TA = 125°C for 1008 hrs	c = 0	Test @ 0, 504, 1008hrs	80	2	160	1008hrs.	Measure at room and hot
B2	ELFR	JA108	Tj = 125°C for 48 hrs or	c = 0	c = 0, Test @ Room, hot	800	2	1600	48hrs.	Measure at room and hot
A2	HAST	JA101 JA110	130°C/85% RH, bias for 96 hrs	c = 0	Test @ 0, 96hrs HAST	80	2	160	96hrs.	Measure at room and hot
A3	AC	JA106	Ta = 121°C RH = 100%	c = 0	Test @ 0, 96hrs	80	1	80	96hrs.	
A4	TC	JA104	-65°C to +150°C for 500 cycles	c = 0	Test @ 0, 500	80	1	80	500cyc	Measure at room and hot
C2	BPS	M883 Method 2011	Wire Bond Pull Strength, Condition C		3gm Pull Force Min After TC	30 bonds from 5 units	1	5		After 500cycTC
E2	ESD HBM	AEC-Q100-002	Human Body Model (HBM)		c = 0, Test @ Room, hot	3 units/V level per Model	1	9		Measure at room and hot
E2	ESD MM	AEC-Q100-003	Machine Model (MM)		c = 0, Test @ Room, hot	3 units/V level per Model	1	9		Measure at room and hot
E3	ESD CDM	AEC-Q100-011	Charge Device Model (CDM)		c = 0, Test @ Room, hot	3 units/V level per Model	1	9		Measure at room and hot
E4	LU	AEC-Q100-004	Dynamic Latch-up	c = 0	Test @ EP Room, hot	12	1	12		Measure at room and hot
E5	ED	ON Semiconduct or spec	Electrical Distribution	Cpk > 1.66	Cpk > 1.66	30	2	60		


INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION #16572
D2PAK package

AEC #	Test	Ref.	Test Conditions	Accept	Read points	Minimum Sample Size	# of Lots	Total Units	End Point Requirements	Comments
	Electrical Test	ON Product Spec	ON Product Spec	c = 0	See below	All devices				
B1	HTOL	JA108	TA = 125°C for 1008 hrs	c = 0	Test @ 0, 504, 1008hrs	80	1	80	1008hrs.	Measure at room and hot
A6	HTSL	J103	150°C for 1008 hrs or	c = 0.	Test @ 0, 504, 1008hrs	80	1	80	1008hrs.	Measure at room and hot
A1	PC	JA112 J113	Moisture Pre-conditioning for THB/HAST, AC and TC	c = 0	SMD only, Test @ 0 & EP	All prior to AC, HAST, TC	All	All		MSL1, 260°C
	SAT		Scanning Acoustic Topography	Test pre- and post-PC		10	3	30		Samples pulled from each PC level pre- and post-PC
A2	PC-HAST	JA101 JA110	130°C/85% RH, bias for 96 hrs	c = 0	Test @ 0, 96hrs HAST	80	3	240	96hrs.	Measure at room and hot
A3	PC-AC	JA106	Ta = 121°C RH = 100%	c = 0	Test @ 0, 96hrs	80	3	240	96hrs.	
A4	PC-TC	JA104	-65°C to +150°C for 500 cycles	c = 0	Test @ 0, 500	80	3	240	500cyc	Measure at room and hot
C2	BPS	M883 Method 2011	Wire Bond Pull Strength, Condition C		3gm Pull Force Min After TC	30 bonds from 5 units	3	15		After 500cycTC
E5	ED	ON Semiconductor spec	Electrical Distribution	Cpk > 1.66	Cpk > 1.66	30	1	30		



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List of affected General Parts:

LM317BTG
LM317TG
LM317BD2TG
LM317BD2TR4G
LM317D2TG
LM317D2TR4G
NCV317BTG
NCV317BD2TG
NCV317BD2TR4G
LMW317
SCD317BTG