

Process Change Notification

This is to inform you that a design and/or process change/s will be implemented to the following product(s) listed below. This notification requires your concurrence within 45 days upon receipt of this notification.

The plan change/s will take effect 90 calendar days from the date of this notification.

Please work with your local Taiwan Semiconductor Sales Representative to manage your inventory of the existing product if your evaluation of this change will require more than 90 calendar days.

For additional data and samples, you can contact your local Taiwan Semiconductor Field Quality Service or Customer Quality Engineer within 45 days upon receipt of this notification

PCN No: PCN21011

Title: Additional Wafer Supplier for TS1117B Series Devices

Issue Date: 2021/7/27

If you have any questions concerning this change, please contact:

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PCN Type: Additional Wafer Source

Effectivity:

Expected 1st device shipment date: 2021/10/25

Product Category (Description):

All TS1117B Series in TO-252 (DPAK)/SOT-223 packages that are currently provided by Taiwan Semiconductor Company.

Description of Change:

This PCN is issued to notify customers to ensure the continuity of supply for TS1117B Series in TO-252 (DPAK)/SOT-223 packages. Taiwan Semiconductor Co. Ltd supplier has qualified an additional wafer source ASMCFab located in China.

Reliability tests and electrical test performance has been completed on representative part numbers to ensure no change to device functionality or electrical specifications in the datasheet. Refer to the electrical performance and reliability test report below.

1. Electrical Test Performance

Item	Vref (V)	Line_ref (mV)	Load_reg (mV)	Vdrop (V)	Iadj1 (uA)	Iadj2 (uA)
Test condition	Vin=2.75 V, Iload=1A	VO +1.5V ≤ VIN ≤ 12V, IO = 10mA	VIN = VOUT+1.5V, IO = 10mA~1A	Vin=2.75V, Iload=1A	Vin=2.75 V, Iload= 10mA	Vin=2.75 V, Iload= 1A
Spec	1.225 ~1.275	<6.25	<12.5	<1.5	90 Typ.	90 Typ.
MIN	1.237	0.003	0	1.238	45.99	35.05
MAX	1.259	2.364	2.594	1.259	49.00	49.01
AVG.	1.247	0.705	0.915	1.247	47.44	41.77

Remarks: Electrical performance of the additional wafer source is within the datasheet specification.

2. Reliability Qualification Test Summary:

Qualification Vehicle: TS1117BCW

Item	Reference Standard	Test Condition	Duration	Sample Size	No. of Lots	Results (Fail/SS)
PC	JESD22-A113	MSL-3, 3x Reflow at 260°C	-	385	3	0/1155
HTOL	JESD22-A108	Tj =150°C Vin = 1.1 Vcc max	1008 hrs	77	3	0/231
TC	JESD22-A104	-55°C to +150°C, 15 mins dwell	1000 cycs	77	3	0/231
uHAST	JESD22-A118	Ta = 130°C, 85%RH, unbiased	96 hrs	77	3	0/231
HTSL	JESD22-A103	Ta=150°C	1000 hrs	77	3	0/231
THB	JESD22-A110	Ta = 85°C, 85%RH, Vin = Vcc max	1000 hrs	77	3	0/231
EM	JP-001	-	-	3 wafer	1	Passed
LU	JESD78	Class I	-	3	1	0/3
ESD-HBM	JS-001	Ta=25°C	-	30	1	Class 2
ESD-CDM	JS-002	Ta=25°C	-	30	1	Class C5

Note:

1. Device/Package Reliability per JESD-47.
2. The qualification passed the reliability requirements.

Effect of Change:

There is no impact in product electrical specification, functionality, quality and reliability. No change in datasheet parameters and product performance. This change will guarantee Taiwan Semiconductor commitment on customer service and satisfaction through continuous improvement.

List of Affected Devices:

Family	Package	Part No.
Low Dropout Voltage Regulator	TO-252 (DPAK)	TS1117BCP
	TO-252 (DPAK)	TS1117BCP33
	TO-252 (DPAK)	TS1117BCP50
	SOT-223	TS1117BCW
	SOT-223	TS1117BCW12
	SOT-223	TS1117BCW25
	SOT-223	TS1117BCW33
	SOT-223	TS1117BCW50