



Product / Process Change Notification JLIO-7KNV2E

Notice Date: 10/24/2008

Product Category: Battery Management; Power Management; Supervisor

Notification Subject: CCB#860: QUALIFICATION OF 3L TO-92 WITH G600F MOLD COMPOUND AND 8352L DIE ATTACH EPOXY AT GTK ASSEMBLY

Notification Body:
Initial notification

Microchip Part#s Affected (please see the link for these files at the end of this PCN):
[CCB#860_Microchip_Catalog_Part#s_Affected.xls](#)
[CCB#860_Microchip_Catalog_Part#s_Affected.pdf](#)

Description of Change:
Change in Bill Of Materials

Pre-Change:
Mold Compound: EME 1100
Die attach epoxy: 84-1 LMISR4

Post-Change:

Mold Compound: G600F
Die attach epoxy: 8352L

Impacts to Data Sheet:
None

Reason for Change:
To Improve Manufacturability

Change Implementation Status:
In Progress

Estimated Change Implementation Date(s):
December, 29th, 2008 (Date Code: 0901)

NOTE: Please be advised that during a transition period you may receive parts with either bill of materials, due to existing inventory of the original bill of materials.

Markings to Distinguish Revised From Unrevised Devices: (e.g.: Date Code, Device Marking,
Ship Container Marking)
Traceability Code

Attachment(s):

CCB#860_Microchip_Catalog_Part#s_Affected.xls CCB#860_Microchip_Catalog_Part#s_Affected.pdf

PCN_JL10-7KNV2E_3L TO-92_GTK_CCB860_Qual Plan.pdf

Microchip_Catalog_Part#s

MCP100-270DI/TO
MCP100-270HI/TO
MCP100-300DI/TO
MCP100-300HI/TO
MCP100-315DI/TO
MCP100-315HI/TO
MCP100-450DI/TO
MCP100-450HI/TO
MCP100-460DI/TO
MCP100-460HI/TO
MCP100-475DI/TO
MCP100-475HI/TO
MCP100-485DI/TO
MCP100-485HI/TO
MCP101-270DI/TO
MCP101-270HI/TO
MCP101-300DI/TO
MCP101-300HI/TO
MCP101-315DI/TO
MCP101-315HI/TO
MCP101-450DI/TO
MCP101-450HI/TO
MCP101-460DI/TO
MCP101-460HI/TO
MCP101-475DI/TO
MCP101-475HI/TO
MCP101-485DI/TO
MCP101-485HI/TO
MCP102-195I/TO
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MCP102-300E/TO
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MCP102-450E/TO
MCP102-475E/TO
MCP111-195I/TO
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MCP111-290E/TO
MCP111-290E/TOG
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MCP111-315E/TO
MCP111-315E/TOG
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MCP111-450E/TOG
MCP111-475E/TO
MCP111-475E/TOG
MCP112-195I/TO

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MCP131-450E/TOG
MCP131-475E/TO
MCP1525-I/TO
MCP1541-I/TO
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MCP1700-2102E/TO
MCP1700-2201E/TO
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MCP1702-3302E/TO
MCP1702-3602E/TO
MCP1702-4002E/TO
MCP1702-5002E/TO
MCP9700A-E/TO
MCP9700-E/TO
MCP9701A-E/TO
MCP9701-E/TO
TC32MCZB
TC32MCZB713
TC32MEZB
TC32MEZBG



MICROCHIP

QUALIFICATION PLAN

**CCB # 860
PCN#: JLIO-7KNV2E**

**Date:
October 16, 2008**

**Qualification of 3L TO-92 With
G600F Mold Compound and 8352L Die Attach Epoxy
At
GTK Assembly**

Distribution

Surasit P.
Wanphen L.
Wichai K.
Chaweng W.
Gerry O.
Chalermpon P.

Rangsun K.
A. Navarro
R. Sharma

Purpose: _____ To Qualification GTK assembly for 3L TO-92 With
G600F Mold Compound and 8352L Die Attach Epoxy

MP code: _____ Y2020SA2XA00

Part No.: _____ TC32MCZB713

Bonding No.: _____ BDE-000702 Rev. 01

Package:

Type _____ 3L TO-92

Width or Size _____

Die thickness: _____ 8 mils

Die size: _____ 87 x 64 mils

Lead frame:

Paddle size: _____ 105 x 100 mils

Material _____ Cu 194-SDI China

Surface _____ Ag plating on Pad

Process _____ Stamped

Lead Lock _____ No

Part Number _____ 2087

Wire:

Material _____ Au – MK Electron

Wire Diameter _____ 1.0 mil

Die Attach Epoxy:

Part Number _____ 8352L – Ablestik China

Conductive _____ Yes

Mold Compound: _____ G600F – Sumitomo Taiwan

Reliability Test plan: _____ See attached, STD Package Reliability Test plan for 3L
TO-92

Package Reliability Tests								
Test Name	Conditions	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Quantity of Lots	Total Units	Fail Accept #	Est. Dur. Days	Special Instructions
Solderability	JESD22 B102; Perform 8 hour steam aging prior to testing.	22	0	1	22	> 95% lead coverage	5	
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	Cpk > 1.33 or 0 fails after TC	5	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5	Cpk > 1.33	5	30 bonds from a min. 5 devices.
External Visual	Mil. Std. 883-2009/2010	ALL	0	3	ALL	0	5	All devices prior to submission for qualification testing

Package Reliability Tests								
Test Name	Conditions	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Quantity of Lots	Total Units	Fail Accept #	Est. Dur. Days	Special Instructions
HAST *	+130 °C/85% RH for 96 hours. Electrical test pre and post stress at +25 and +85°C.	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning. For fab process change related HAST testing, pre/post test 1 lot at 25C, +85°C and +125°C and pre/post test 2 lots at 25°C and 85°C.
Autoclave *	+121 °C/15 psig for 96 hours. Electrical test pre and post stress at +25 °C	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Temp Cycle*	-65°C to +150°C for 500 cycles. Electrical test pre and post stress at +85°C; 3 gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress.	77	5	3	246	0	15	Spares should be properly identified. Use the parts which have gone through Pre-conditioning. For fab process change related Temp Cycling testing, pre/post test 1 lot at +85°C and +125°C and pre/post test 2 lots at 85°C.