Final Product/Process Change Notification

Document #:FPCN23071XB
Issue Date: 25 Mar 2022

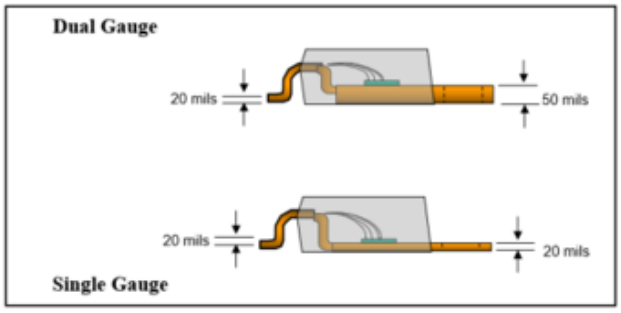
Title of Change:	The change is to improve product package robustness by changing of ICD2PAK 5LD from dual gauge to single gauge frame, add in mold lock on the heatsink and change mold compound from G600 to G700HF.
Proposed First Ship date:	01 Dec 2022 or earlier if approved by customer
Contact Information:	Contact your local onsemi Sales Office or AhmadFaris.Dzulkipli@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.
Additional Reliability Data:	Contact your local onsemi Sales Office or AbdulRasyid.Ruslan@onsemi.com
Type of Notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change. onsemi will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact PCN.Support@onsemi.com
Marking of Parts/ Traceability of Change:	Date Code, Lead frame thickness, Mold lock design
Change Category:	Assembly Change
Change Sub-Category(s):	Material Change, Product specific change

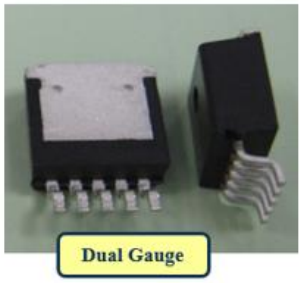
Sites Affected:

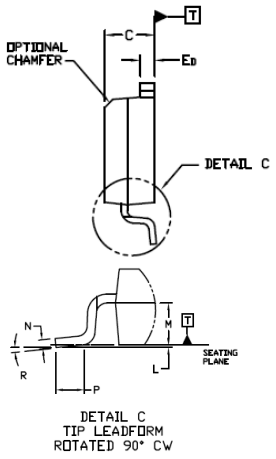
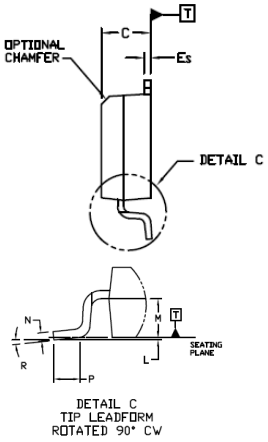
onsemi Sites	**External Foundry/Subcon Sites**
onsemi Seremban, Malaysia	None

Description and Purpose:

To notify customers of the change in leadframe supplier from KOBE to SDI, heatsink thickness from 50mils to 20mils, add in mold lock design on heatsink and change mold compound from G600 to G700HF. The change is to improve product package robustness.





Item	Before Change Description	After Change Description
LeadFrame	Heatsink thickness: Dual Gauges (50mils) Heatsink area: No mold lock	Heatsink thickness: Single Gauge (20mils) Heatsink area: add in mold lock
Mold Compound	G600	G700HF
Package case outline	 CASE 936A−02 Issue D Heatsink Thickness ED: 1.143-1.397mm Package thickness (C): 4.318-4.572mm	 CASE 936A−02 Issue E Heatsink Thickness Es: 0.457-0.660mm Package thickness (C): 4.318-4.572mm *Detail C and all the other dimension remain same.

There is no product marking change as a result of this change

Reliability Data Summary:

QV DEVICE NAME: MC33167D2TR4G
RMS: S55723
PACKAGE: ICD2PAK 5LD

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Ta=110°C, 100 % max rated Vcc	1008 hrs	0/231
HTSL	JESD22-A103	Ta= 150°C	2016 hrs	0/231
TC	JESD22-A104	Ta= -65°C to +150°C	500 cyc	0/231
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	192 hrs	0/231
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/693
RSH	JESD22- B106	Ta = 265C, 10 sec		0/90

SD	JSTD002	Ta = 245C, 5 sec		0/ 45

QV DEVICE NAME: NCV59301DS25R4G
RMS: S79205
PACKAGE: ICD2PAK 5LD

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs	0/231
HTSL	JESD22-A103	Ta= 150°C	2016 hrs	0/231
TC	JESD22-A104	Ta= -65°C to +150°C	500 cyc	0/231
HAST	JESD22-A110	110°C, 85% RH, 18.8psig, bias	528 hrs	0/231
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/693
RSH	JESD22- B106	Ta = 265C, 10 sec		0/90
SD	JSTD002	Ta = 245C, 5 sec		0/ 45

Electrical Characteristics Summary:

Electrical characteristics are not impacted.

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
LM2575D2T-12R4G	MC33167D2TR4G
LM2575D2T-15R4G	MC33167D2TR4G
LM2575D2T-3.3R4G	MC33167D2TR4G
LM2575D2T-5G	MC33167D2TR4G
LM2575D2T-5R4G	MC33167D2TR4G
LM2575D2T-ADJG	MC33167D2TR4G
LM2575D2T-ADJR4G	MC33167D2TR4G
LM2576D2T-005G	MC33167D2TR4G
LM2576D2T-15G	MC33167D2TR4G
LM2576D2T-ADJG	MC33167D2TR4G
LM2576D2T-ADJR4G	MC33167D2TR4G
LM2576D2TR4-012G	MC33167D2TR4G

LM2576D2TR4-3.3G	MC33167D2TR4G
LM2576D2TR4-5G	MC33167D2TR4G
LM2595DSADJR4G	MC33167D2TR4G
LM2596DSADJG	MC33167D2TR4G
LM2596DSADJR4G	MC33167D2TR4G
MC33166D2TG	MC33167D2TR4G
MC33166D2TR4G	MC33167D2TR4G
MC33167D2TG	MC33167D2TR4G
MC33167D2TR4G	MC33167D2TR4G
MC34166D2TR4G	MC33167D2TR4G
MC34167D2TG	MC33167D2TR4G
MC34167D2TR4G	MC33167D2TR4G
LM2931ACD2TR4G	NCV59301DS25R4G
NCP5662DS28R4G	NCV59301DS25R4G
NCP5662DS30R4G	NCV59301DS25R4G
NCP5663DS15R4G	NCV59301DS25R4G
NCP5663DSADJR4G	NCV59301DS25R4G
SCY99302DSADJR4G	NCV59301DS25R4G
NCP630AD2TR4G	NCV59301DS25R4G
NCP59302DSADJR4G	NCV59301DS25R4G
NCP59301DS50R4G	NCV59301DS25R4G
NCP59301DS30R4G	NCV59301DS25R4G
NCP59301DS28R4G	NCV59301DS25R4G
NCP59152DSADJR4G	NCV59301DS25R4G
NCP59151DS30R4G	NCV59301DS25R4G
NCP59151DS28R4G	NCV59301DS25R4G
NCP59151DS25R4G	NCV59301DS25R4G
NCP57152DSADJR4G	NCV59301DS25R4G