



Title of Change:	Qualification of Shinwon, Korea as Leadframe supplier for D2PAK TO263 commercial products.	
Proposed first ship date:	22 June 2018	
Contact information:	Contact your local ON Semiconductor Sales Office or <Huiyu.Li@onsemi.com>	
Samples:	Contact your local ON Semiconductor Sales Office	
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or <welson.lu@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. ON Semiconductor 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>.	
Change Part Identification:	Affected products will be identified with date code.	
Change category:	<input type="checkbox"/> Wafer Fab Change <input checked="" type="checkbox"/> Assembly Change <input type="checkbox"/> Test Change <input type="checkbox"/> Other _____	
Change Sub-Category(s):	<input checked="" type="checkbox"/> Manufacturing Site Change/Addition <input checked="" type="checkbox"/> Material Change <input type="checkbox"/> Datasheet/Product Doc change <input type="checkbox"/> Manufacturing Process Change <input type="checkbox"/> Product specific change <input type="checkbox"/> Shipping/Packaging/Marking <input type="checkbox"/> Other: _____	
Sites Affected:	ON Semiconductor Sites: ON Suzhou, China	External Foundry/Subcon Sites: None
Description and Purpose:		
<p>This Final Notification announces to customers the change of Leadframe supplier from TSP, Korea to Shinwon, Korea, and the raw material change from 12SnOFC to PMC90.</p> <p>The purpose of the change is for (D2PAK) TO263 second source qualification.</p>		
Reference:		
<p>Shinwon PMC90 is qualified in TO3PF, TO-220 JEDEC, and TO247 package in ON Semiconductor Suzhou, China.</p> <p>Now, ON Semiconductor Suzhou, China is planning to proliferate Shinwon Leadframe to TO263 package.</p>		
Material to be changed	Before Change	After Change
Leadframe	Supplier TSP, Korea with 12SnOFC material	Supplier Shinwon, Korea with PMC90 material for second source



Reliability Data Summary:

QV DEVICE NAME: FGB20N605F (optional, if not used please remove) RMS: <u>NA</u> PACKAGE: <u>TT263</u>				
Test	Specification	Condition	Interval	Results
TC	JESD22-A104	Ta = -65°C to +150°C	500 cyc	0/77
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta = +25°C, delta Tj = 100°C On/off = 3.5 min	8572 cyc	0/77
uHASt	JESD22-A118	130°C, 85% RH, unbiased	96 hrs	0/77
RSH	JESD22- B106	Ta = 270C, 15 sec		0/30
SD	JSTD002	Ta = 245C, 5 sec		0/ 11
QV DEVICE NAME: FDB088N08 (optional, if not used please remove) RMS: <u>NA</u> PACKAGE: <u>TT263</u>				
Test	Specification	Condition	Interval	Results
TC	JESD22-A104	Ta = -65°C to +150°C	500 cyc	0/77
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta = +25°C, delta Tj = 100°C On/off = 3.5 min	8572 cyc	0/77
uHASt	JESD22-A118	110°C, 85% RH, unbiased	264 hrs	0/77
RSH	JESD22- B106	Ta = 270C, 15 sec		0/30
SD	JSTD002	Ta = 245C, 5 sec		0/ 11
QV DEVICE NAME: FCB110N65F (optional, if not used please remove) RMS: <u>NA</u> PACKAGE: <u>TT263</u>				
Test	Specification	Condition	Interval	Results
TC	JESD22-A104	Ta = -65°C to +150°C	500 cyc	0/77
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta = +25°C, delta Tj = 100°C On/off = 3.5 min	8572 cyc	0/77
uHASt	JESD22-A118	110°C, 85% RH, unbiased	264 hrs	0/77
RSH	JESD22- B106	Ta = 270C, 15 sec		0/30
SD	JSTD002	Ta = 245C, 5 sec		0/ 11

Electrical Characteristic Summary:

Electrical characteristics are not impacted.



List of Affected Standard Parts:

Part Number	Qualification Vehicle
FCB110N65F	FCB110N65F
FCB11N60TM	
FCB20N60FTM	
FCB20N60TM	
FDB38N30U	
FQB5N50CTM	
FQB5N90TM	
FQB7N60TM	
FQB8N60CTM	
FQB8N90CTM	
FQB9N50CTM	
HUF75639S3ST	
HUF76439S3ST	
HUF76639S3ST	
FCB070N65S3	
FCB290N80	
FDB12N50FTM-WS	
FQB5N60CTM-WS	
HUF75631S3ST	
HUF76429S3ST	
FQB6N40CTM	FDB088N08
FDB14N30TM	
FDB150N10	
FQB11P06TM	
FQB19N20CTM	
FQB1P50TM	
FQB30N06LTM	
FQB7P20TM	
FQB8P10TM	
IRFW630BTM-FP001	
FDB088N08	



Part Number	Qualification Vehicle
FFB10UP20STM	FGB20N60SF
FFB20UP20STM	
FFB20UP30DNTM	
FGB20N60SF	
FGB7N60UNDF	
FJB102TM	
NDB6030PL	
FGB5N60UNDF	
FJB5555TM	
KSB834WYTM	
FJB3307DTM	
HGT1S12N60A4DS	
FDB12N50TM	
FDB13AN06A0	
FDB15N50	
FDB16AN08A0	
FDB2572	
FDB3502	
FDB3682	
FDB390N15A	
FDB7030BL	
FDB8447L	
FDB86102LZ	
FDB8880	
FGB40N60SM	
FQB4N80TM	
FQB6N80TM	
FDB8444	
FDB8896	
FDB8870	
FDB035AN06A0	FDB088N08 FCB110N65F
FDB035N10A	
FDB045AN08A0	
FDB050AN06A0	
FDB060AN08A0	
FDB070AN06A0	
FDB075N15A	
FDB110N15A	



FDB2532	
FDB2552	
FDB2614	
FDB2710	
FDB28N30TM	
FDB33N25TM	
FDB3632	
FDB3652	
FDB44N25TM	
FDB52N20TM	
FDB86135	
FDB8860	
FQB12P20TM	
FQB19N20LTM	
FQB19N20TM	
FQB27P06TM	
FQB33N10TM	
FQB34N20LTM	
FQB34P10TM	
FQB44N10TM	
FQB47P06TM-AM002	
FQB50N06LTM	
FQB50N06TM	
FQB55N10TM	
FQB9P25TM	
HGT1S10N120BNS	
HGT1S10N120BNST	
HUF75345S3ST	
HUF75545S3ST	
HUF75645S3ST	
ISL9R1560S3ST	
FDB082N15A	
FDB120N10	
FDB8030L	
FDB8832	
FQB10N50CFTM-WS	
FQB11N40CTM	
FQB33N10LTM	
FQB34N20TM-AM002	
HGT1S20N60C3S9A	
HUFA75645S3S	

FDB088N08
FCB110N65F



FGB20N60SFD	FDB088N08 FGB20N60SF
FQB22P10TM	
ISL9R18120S3ST	
ISL9R860S3ST	



Appendix A: Changed Products

Product	Customer Part Number	Qualification Vehicle
FCB070N65S3		FCB110N65F
FCB110N65F		FCB110N65F
FCB11N60TM		FCB110N65F
FCB20N60FTM		FCB110N65F
FCB20N60TM		FCB110N65F
FCB290N80		FCB110N65F
FDB035AN06A0		FDB088N08, FCB110N65F
FDB035N10A		FDB088N08, FCB110N65F
FDB045AN08A0		FDB088N08, FCB110N65F
FDB050AN06A0		FDB088N08, FCB110N65F
FDB060AN08A0		FDB088N08, FCB110N65F
FDB070AN06A0		FDB088N08, FCB110N65F
FDB075N15A		FDB088N08, FCB110N65F
FDB082N15A		FDB088N08, FCB110N65F
FDB088N08		FDB088N08
FDB110N15A		FDB088N08, FCB110N65F
FDB120N10		FDB088N08, FCB110N65F
FDB12N50FTM-WS		FCB110N65F
FDB12N50TM		FCB110N65F, FGB20N60SF
FDB13AN06A0		FCB110N65F, FGB20N60SF
FDB14N30TM		FDB088N08
FDB150N10		FDB088N08
FDB15N50		FCB110N65F, FGB20N60SF
FDB16AN08A0		FCB110N65F, FGB20N60SF
FDB2532		FDB088N08, FCB110N65F
FDB2552		FDB088N08, FCB110N65F
FDB2572		FCB110N65F, FGB20N60SF
FDB2614		FDB088N08, FCB110N65F
FDB2710		FDB088N08, FCB110N65F
FDB28N30TM		FDB088N08, FCB110N65F
FDB33N25TM		FDB088N08, FCB110N65F
FDB3502		FCB110N65F, FGB20N60SF
FDB3632		FDB088N08, FCB110N65F
FDB3652		FDB088N08, FCB110N65F
FDB3682		FCB110N65F, FGB20N60SF
FDB38N30U		FCB110N65F
FDB390N15A		FCB110N65F, FGB20N60SF
		FDB088N08,



FDB44N25TM		FCB110N65F
FDB52N20TM		FDB088N08, FCB110N65F
FDB7030BL		FCB110N65F, FGB20N60SF
FDB8030L		FDB088N08, FCB110N65F
FDB8444		FCB110N65F, FGB20N60SF
FDB8447L		FCB110N65F, FGB20N60SF
FDB86102LZ		FCB110N65F, FGB20N60SF
FDB86135		FDB088N08, FCB110N65F
FDB8832		FDB088N08, FCB110N65F
FDB8860		FDB088N08, FCB110N65F
FDB8870		FCB110N65F, FGB20N60SF
FDB8880		FCB110N65F, FGB20N60SF
FDB8896		FCB110N65F, FGB20N60SF
FFB10UP20STM		FGB20N60SF
FFB20UP20STM		FGB20N60SF
FFB20UP30DNTM		FGB20N60SF
FGB20N60SF		FGB20N60SF
FGB20N60SFD		FDB088N08, FGB20N60SF
FGB40N60SM		FCB110N65F, FGB20N60SF
FGB5N60UNDF		FGB20N60SF
FGB7N60UNDF		FGB20N60SF
FJB102TM		FGB20N60SF
FJB3307DTM		FGB20N60SF
FJB5555TM		FGB20N60SF
FQB10N50CFM-WS		FDB088N08, FCB110N65F
FQB11N40CTM		FDB088N08, FCB110N65F
FQB11P06TM		FDB088N08
FQB12P20TM		FDB088N08, FCB110N65F
FQB19N20CTM		FDB088N08
FQB19N20LTM		FDB088N08, FCB110N65F
FQB19N20TM		FDB088N08, FCB110N65F
FQB1P50TM		FDB088N08
FQB22P10TM		FDB088N08, FGB20N60SF
FQB27P06TM		FDB088N08, FCB110N65F
FQB30N06LTM		FDB088N08
FQB33N10LTM		FDB088N08, FCB110N65F
FQB33N10TM		FDB088N08, FCB110N65F
FQB34N20LTM		FDB088N08, FCB110N65F
FQB34N20TM-AM002		FDB088N08, FCB110N65F
FQB34P10TM		FDB088N08, FCB110N65F
FQB44N10TM		FDB088N08, FCB110N65F
FQB47P06TM-AM002		FDB088N08, FCB110N65F
FQB4N80TM		FCB110N65F, FGB20N60SF



FQB50N06LTM		FDB088N08, FCB110N65F
FQB50N06TM		FDB088N08, FCB110N65F
FQB55N10TM		FDB088N08, FCB110N65F
FQB5N50CTM		FCB110N65F
FQB5N60CTM-WS		FCB110N65F
FQB5N90TM		FCB110N65F
FQB6N40CTM		FCB110N65F
FQB6N80TM		FCB110N65F, FGB20N60SF
FQB7N60TM		FCB110N65F
FQB7P20TM		FDB088N08
FQB8N60CTM		FCB110N65F
FQB8N90CTM		FCB110N65F
FQB8P10TM		FDB088N08
FQB9N50CTM		FCB110N65F
FQB9P25TM		FDB088N08, FCB110N65F
HGT1S10N120BNS		FDB088N08, FCB110N65F
HGT1S10N120BNST		FDB088N08, FCB110N65F
HGT1S12N60A4DS		FGB20N60SF
HGT1S20N60C3S9A		FDB088N08, FCB110N65F
HUF75345S3ST		FDB088N08, FCB110N65F
HUF75545S3ST		FDB088N08, FCB110N65F
HUF75631S3ST		FCB110N65F
HUF75639S3ST		FCB110N65F
HUF75645S3ST		FDB088N08, FCB110N65F
HUF76429S3ST		FCB110N65F
HUF76439S3ST		FCB110N65F
HUF76639S3ST		FCB110N65F
HUFA75645S3S		FDB088N08, FCB110N65F
ISL9R1560S3ST		FDB088N08, FCB110N65F
ISL9R18120S3ST		FDB088N08, FGB20N60SF
ISL9R860S3ST		FDB088N08, FGB20N60SF
KSB834WYTM		FGB20N60SF
NDB6030PL		FGB20N60SF