



SOT1963-1

VFBGA42, plastic very thin fine-pitch ball grid array package,
42 balls, 0.4 mm pitch, 2.6 mm x 3 mm x 0.9 mm body

2 March 2018

Package information

1. Package summary

Terminal position code	B (bottom)
Package type descriptive code	VFBGA42
Package style descriptive code	VFBGA (very thin fine-pitch ball grid array)
Package body material type	P (plastic)
Mounting method type	S (surface mount)
Issue date	1-2-2018
Manufacturer package code	98ASA01181D

Table 1. Package summary

Symbol	Parameter		Min	Typ	Nom	Max	Unit
D	package length		-	-	2.6	-	mm
E	package width		-	-	3	-	mm
A	seated height		-	-	0.9	-	mm
e	nominal pitch		-	-	0.4	-	mm
n ₂	actual quantity of termination		-	-	42	-	A/A



2. Package outline

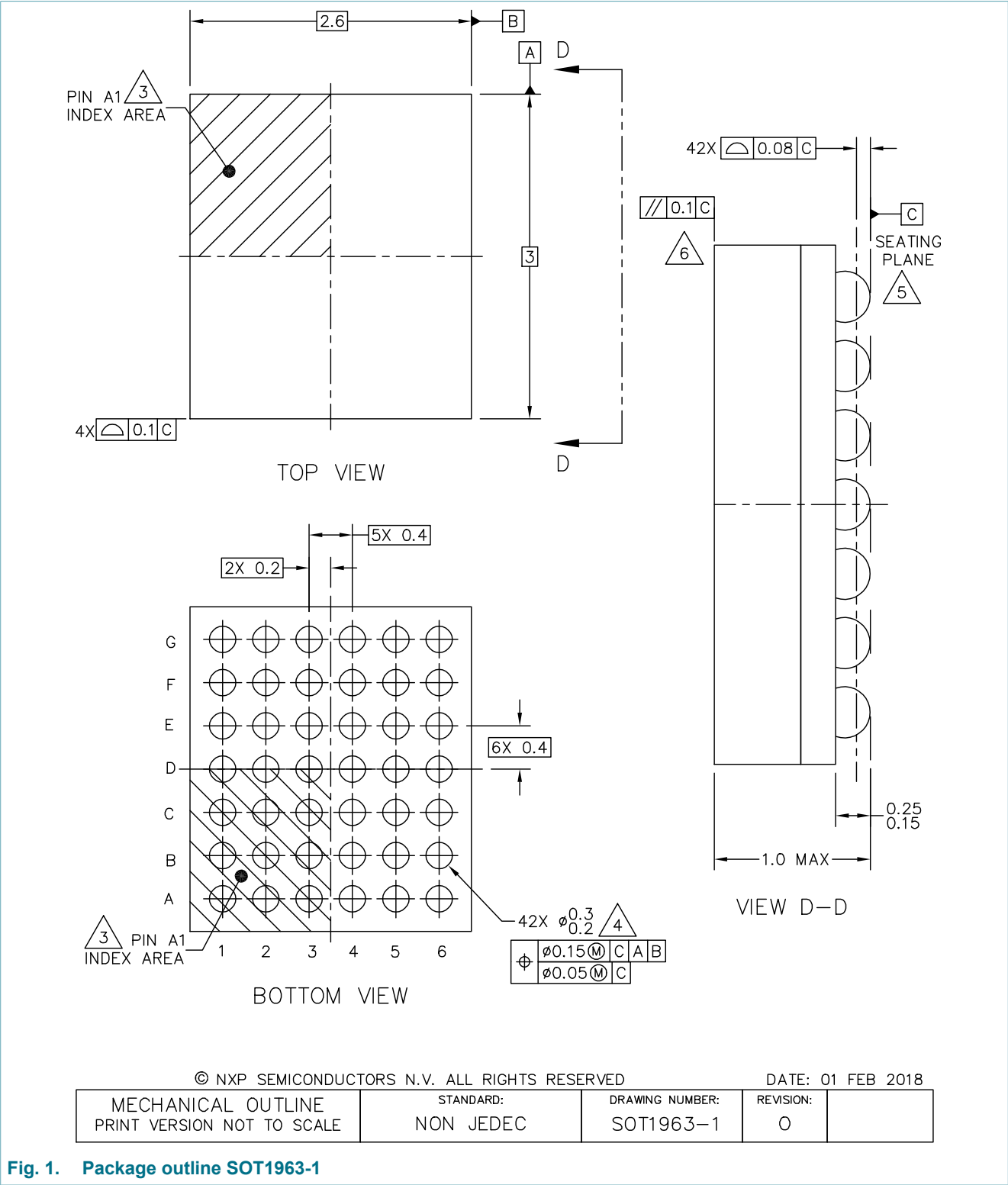


Fig. 1. Package outline SOT1963-1

VFBGA42, plastic very thin fine-pitch ball grid array package, 42 balls, 0.4 mm pitch, 2.6 mm x 3 mm x 0.9 mm body

NOTES:

- 1. ALL DIMENSIONS IN MILLIMETERS.
- 2. DIMENSIONING AND TOLERANCING PER ASME Y14.5M–1994.
- 3. PIN A1 FEATURE SHAPE, SIZE AND LOCATION MAY VARY.
- 4. MAXIMUM SOLDER BALL DIAMETER MEASURED PARALLEL TO DATUM C.
- 5. DATUM C, THE SEATING PLANE, IS DETERMINED BY THE SPHERICAL CROWNS OF THE SOLDER BALLS.
- 6. PARALLELISM MEASUREMENT SHALL EXCLUDE ANY EFFECT OF MARK ON TOP SURFACE OF PACKAGE.

© NXP SEMICONDUCTORS N.V. ALL RIGHTS RESERVED			DATE: 01 FEB 2018	
MECHANICAL OUTLINE PRINT VERSION NOT TO SCALE	STANDARD: NON JEDEC	DRAWING NUMBER: SOT1963–1	REVISION: 0	

Fig. 2. Package outline note VFBGA42 (SOT1963-1)

3. Soldering

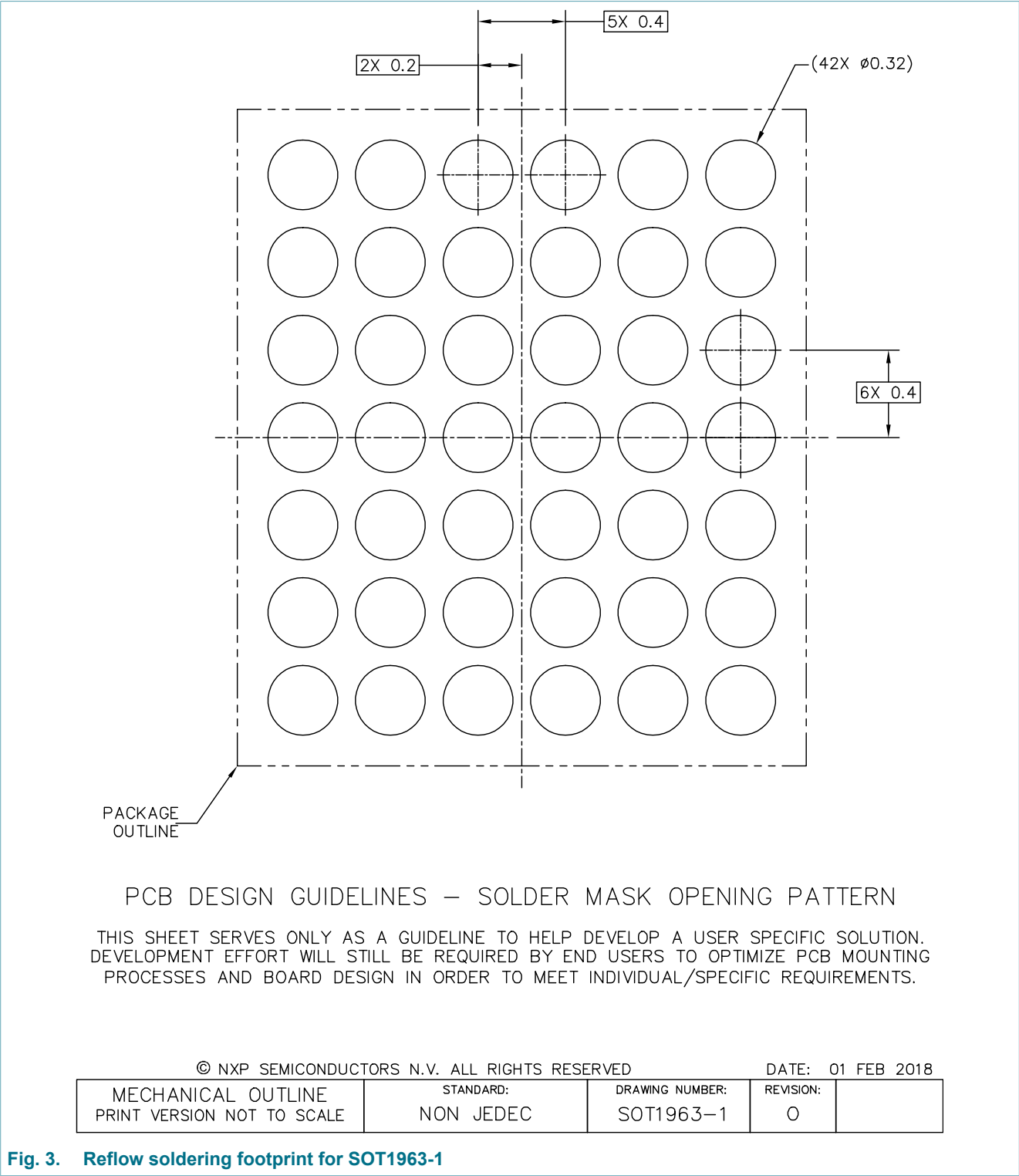
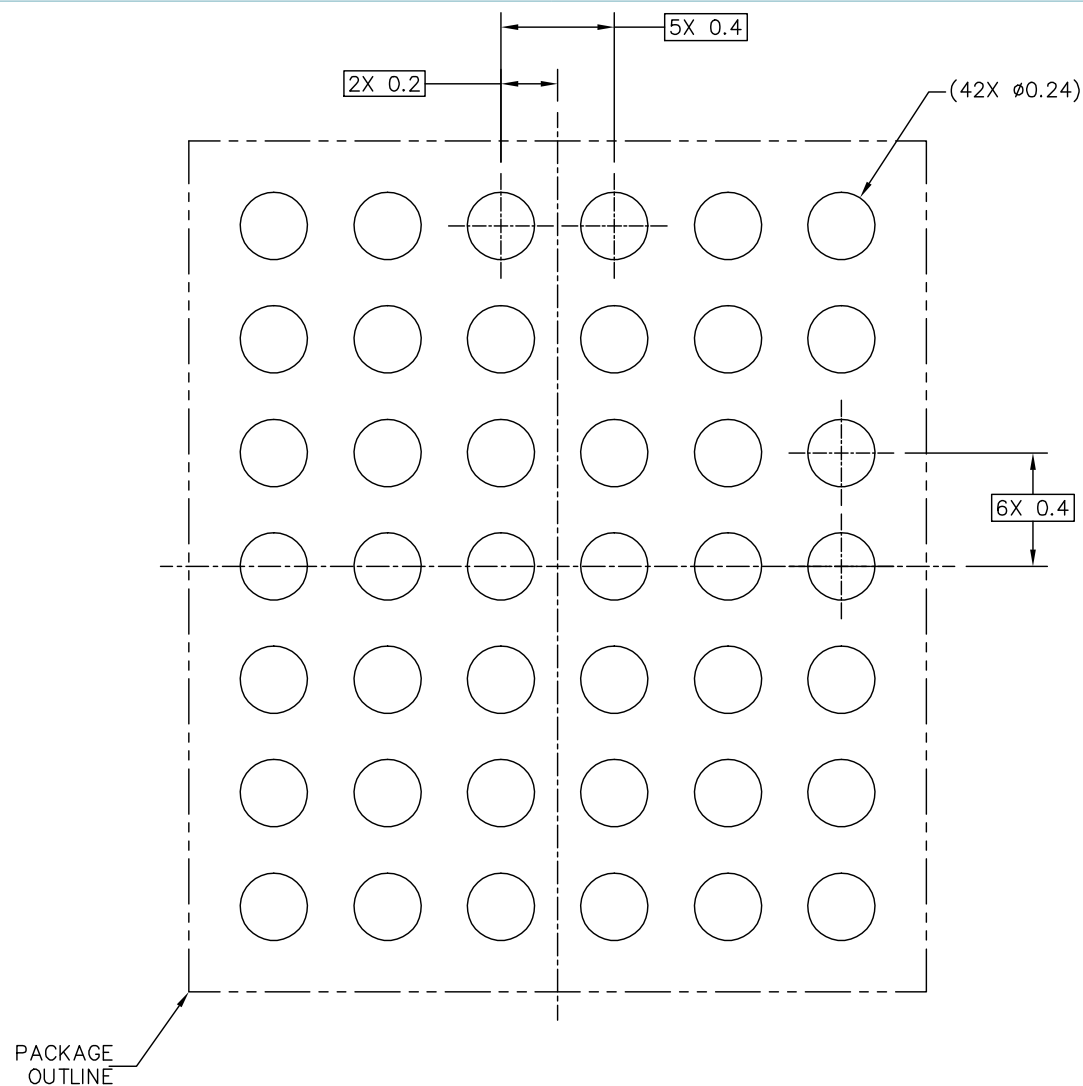


Fig. 3. Reflow soldering footprint for SOT1963-1

VFBGA42, plastic very thin fine-pitch ball grid array package, 42 balls, 0.4 mm pitch, 2.6 mm x 3 mm x 0.9 mm body



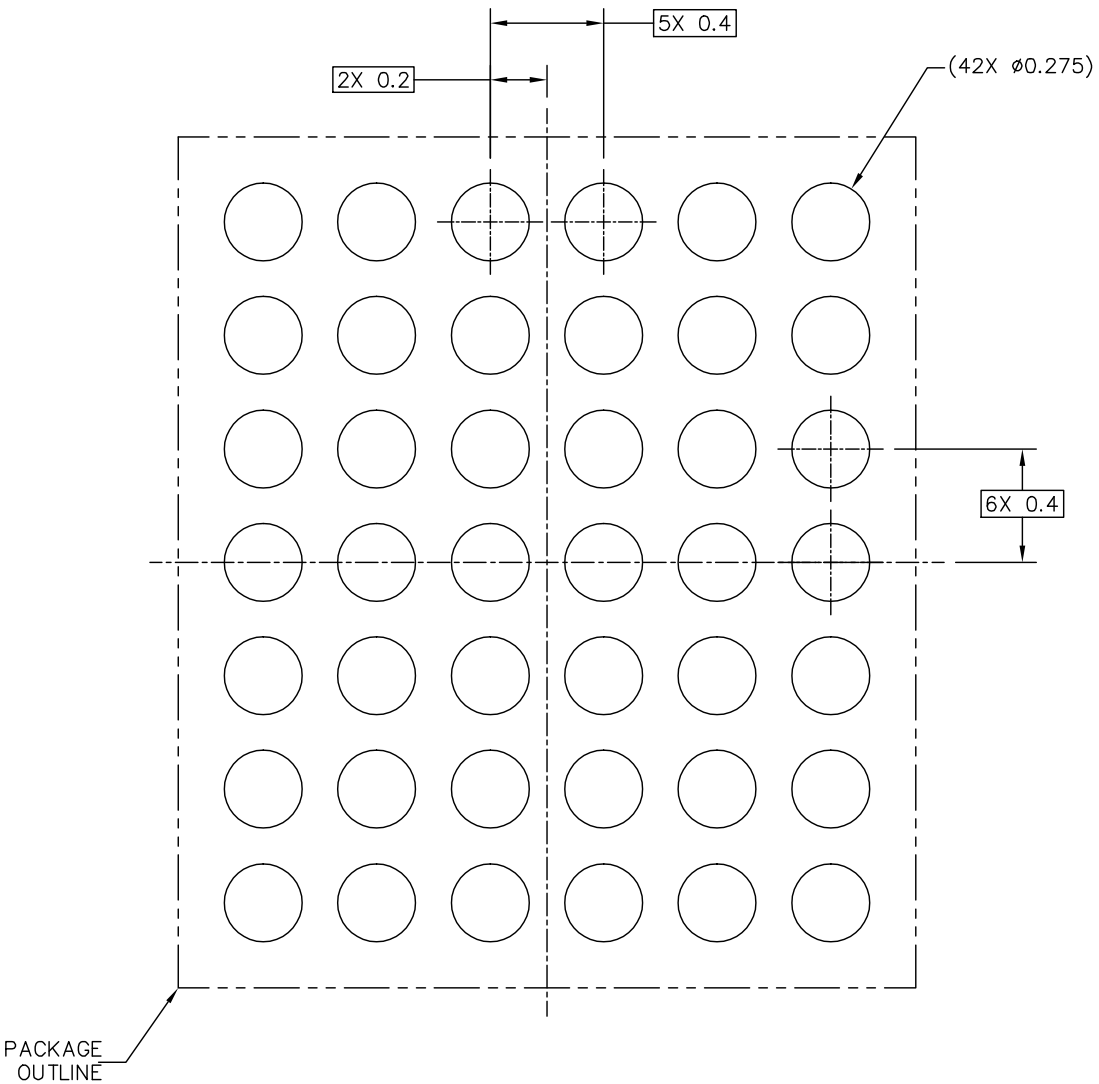
PCB DESIGN GUIDELINES – I/O PADS AND SOLDERABLE AREA

THIS SHEET SERVES ONLY AS A GUIDELINE TO HELP DEVELOP A USER SPECIFIC SOLUTION. DEVELOPMENT EFFORT WILL STILL BE REQUIRED BY END USERS TO OPTIMIZE PCB MOUNTING PROCESSES AND BOARD DESIGN IN ORDER TO MEET INDIVIDUAL/SPECIFIC REQUIREMENTS.

© NXP SEMICONDUCTORS N.V. ALL RIGHTS RESERVED DATE: 01 FEB 2018

MECHANICAL OUTLINE PRINT VERSION NOT TO SCALE	STANDARD: NON JEDEC	DRAWING NUMBER: SOT1963-1	REVISION: 0	
--	------------------------	------------------------------	----------------	--

Fig. 4. Reflow soldering footprint part2 for VFBGA42 (SOT1963-1)



RECOMMENDED STENCIL THICKNESS 0.1

PCB DESIGN GUIDELINES – SOLDER PASTE STENCIL

THIS SHEET SERVES ONLY AS A GUIDELINE TO HELP DEVELOP A USER SPECIFIC SOLUTION. DEVELOPMENT EFFORT WILL STILL BE REQUIRED BY END USERS TO OPTIMIZE PCB MOUNTING PROCESSES AND BOARD DESIGN IN ORDER TO MEET INDIVIDUAL/SPECIFIC REQUIREMENTS.

© NXP SEMICONDUCTORS N.V. ALL RIGHTS RESERVED			DATE: 01 FEB 2018	
MECHANICAL OUTLINE PRINT VERSION NOT TO SCALE	STANDARD: NON JEDEC	DRAWING NUMBER: SOT1963-1	REVISION: 0	

Fig. 5. Reflow soldering footprint part3 for VFBGA42 (SOT1963-1)

VFBGA42, plastic very thin fine-pitch ball grid array package, 42 balls, 0.4 mm pitch, 2.6 mm x 3 mm x 0.9 mm body

4. Legal information

Disclaimers

Limited warranty and liability — Information in this document is believed to be accurate and reliable. However, NXP Semiconductors does not give any representations or warranties, expressed or implied, as to the accuracy or completeness of such information and shall have no liability for the consequences of use of such information. NXP Semiconductors takes no responsibility for the content in this document if provided by an information source outside of NXP Semiconductors.

In no event shall NXP Semiconductors be liable for any indirect, incidental, punitive, special or consequential damages (including - without limitation - lost profits, lost savings, business interruption, costs related to the removal or replacement of any products or rework charges) whether or not such damages are based on tort (including negligence), warranty, breach of contract or any other legal theory.

Notwithstanding any damages that customer might incur for any reason whatsoever, NXP Semiconductors' aggregate and cumulative liability towards customer for the products described herein shall be limited in accordance with the *Terms and conditions of commercial sale* of NXP Semiconductors.

Right to make changes — NXP Semiconductors reserves the right to make changes to information published in this document, including without limitation specifications and product descriptions, at any time and without notice. This document supersedes and replaces all information supplied prior to the publication hereof.

VFBGA42, plastic very thin fine-pitch ball grid array package, 42 balls, 0.4 mm pitch, 2.6 mm x 3 mm x 0.9 mm body

5. Contents

1. Package summary..... 1

2. Package outline..... 2

3. Soldering..... 4

4. Legal information..... 7

© NXP B.V. 2018. All rights reserved

For more information, please visit: <http://www.nxp.com>

For sales office addresses, please send an email to: salesaddresses@nxp.com

Date of release: 2 March 2018