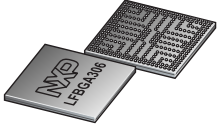


# SOT2177-1

FC-PBGA306, flip chip - plastic ball grid array, 306 terminals, 0.65 mm pitch,  
14 mm x 14 mm x 1.144 mm body

26 March 2026

Package information



## 1 Package summary

|                                       |   |
|---------------------------------------|---|
| <b>Terminal position code</b>         | B (bottom)                                    |
| <b>Package type descriptive code</b>  | FC-PBGA306                                    |
| <b>Package style descriptive code</b> | FC-PBGA (flip chip - plastic ball grid array) |
| <b>Package body material type</b>     | P (plastic)                                   |
| <b>Mounting method type</b>           | S (surface mount)                             |
| <b>Issue date</b>                     | 24-06-2025                                    |
| <b>Manufacturer package code</b>      | 98ASA01893D                                   |

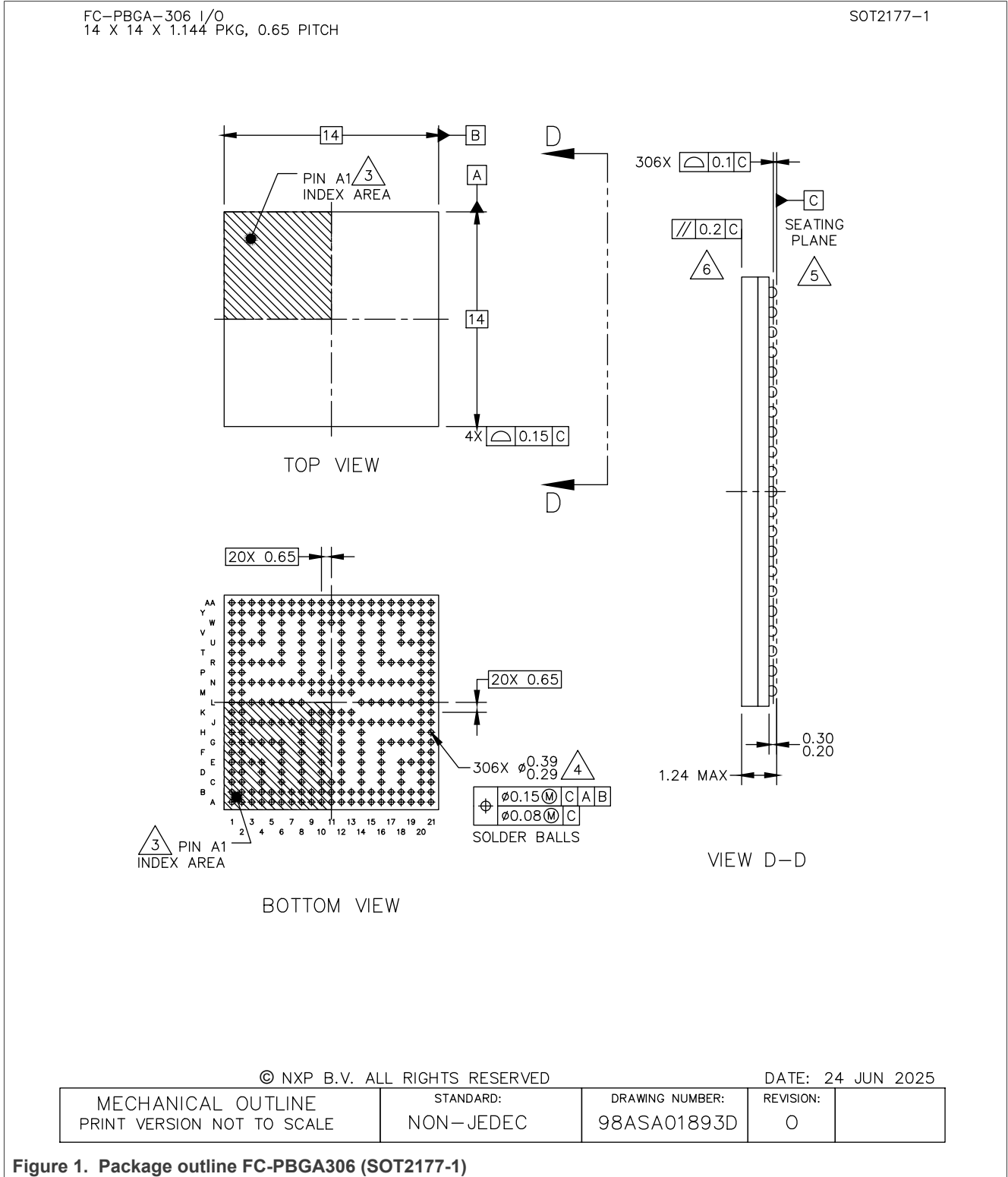
Table 1. Package summary

| Parameter                      | Min   | Nom   | Max   | Unit |
|--------------------------------|-------|-------|-------|------|
| package length                 | 13.85 | 14    | 14.15 | mm   |
| package width                  | 13.85 | 14    | 14.15 | mm   |
| seated height                  | 1.044 | 1.144 | 1.24  | mm   |
| nominal pitch                  | -     | 0.65  | -     | mm   |
| actual quantity of termination | -     | 306   | -     |      |



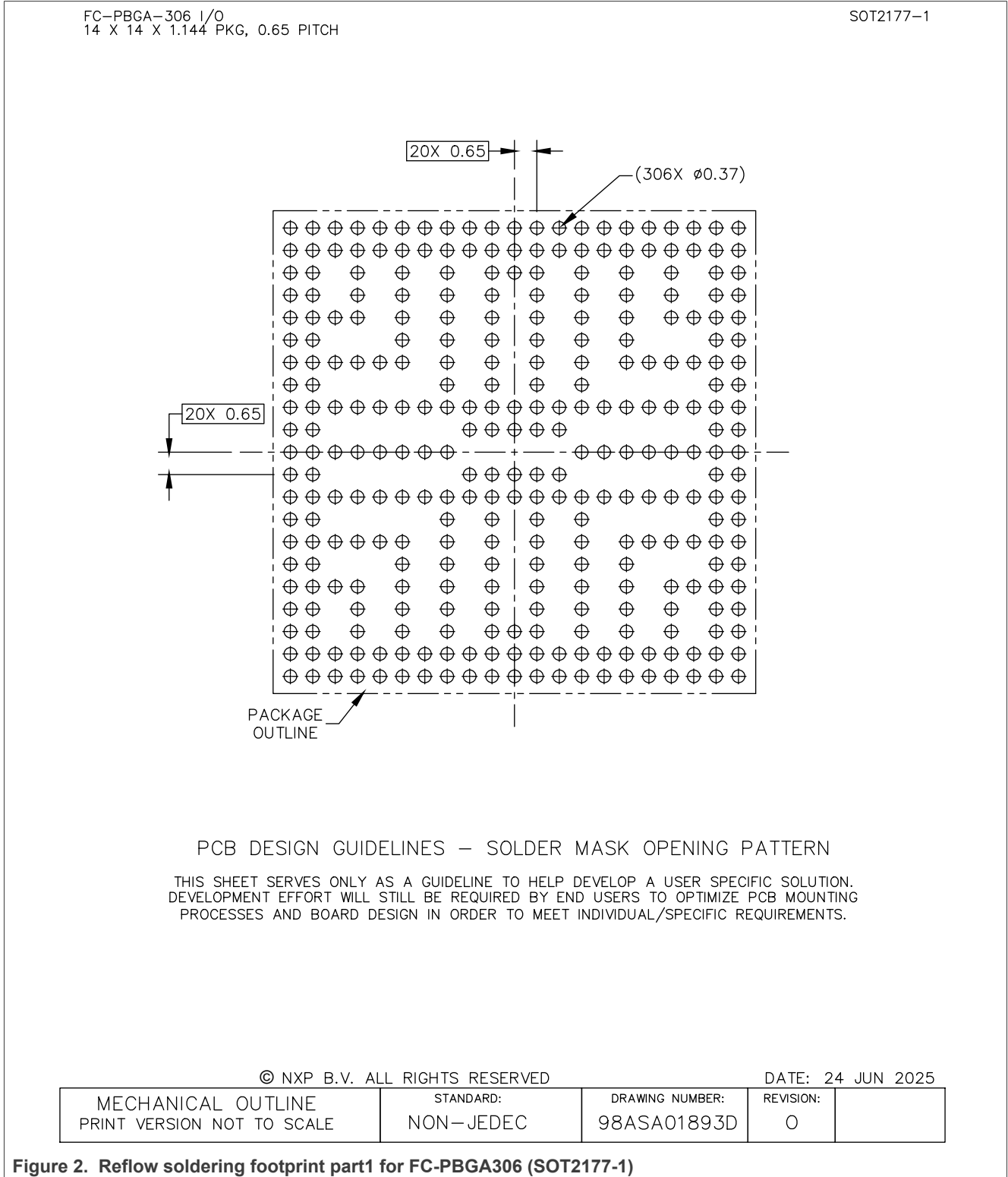
FC-PBGA306, flip chip - plastic ball grid array, 306 terminals, 0.65 mm pitch, 14 mm x 14 mm x 1.144 mm body

2 Package outline



FC-PBGA306, flip chip - plastic ball grid array, 306 terminals, 0.65 mm pitch, 14 mm x 14 mm x 1.144 mm body

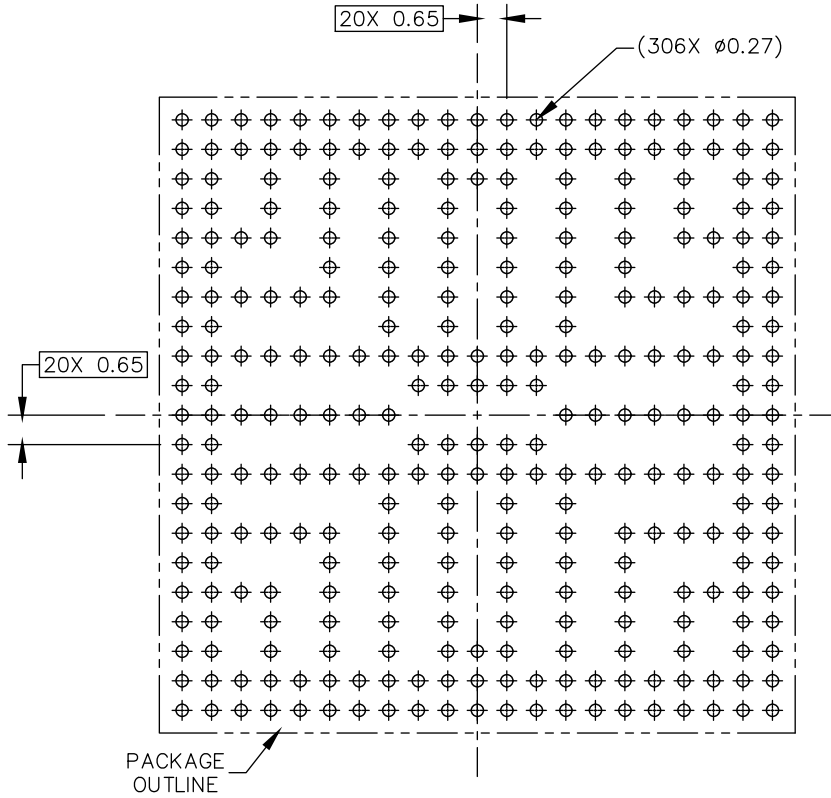
3 Soldering



FC-PBGA306, flip chip - plastic ball grid array, 306 terminals, 0.65 mm pitch, 14 mm x 14 mm x 1.144 mm body

FC-PBGA-306 I/O  
14 X 14 X 1.144 PKG, 0.65 PITCH

SOT2177-1



PCB DESIGN GUIDELINES – I/O PADS AND SOLDERABLE AREA

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DATE: 24 JUN 2025

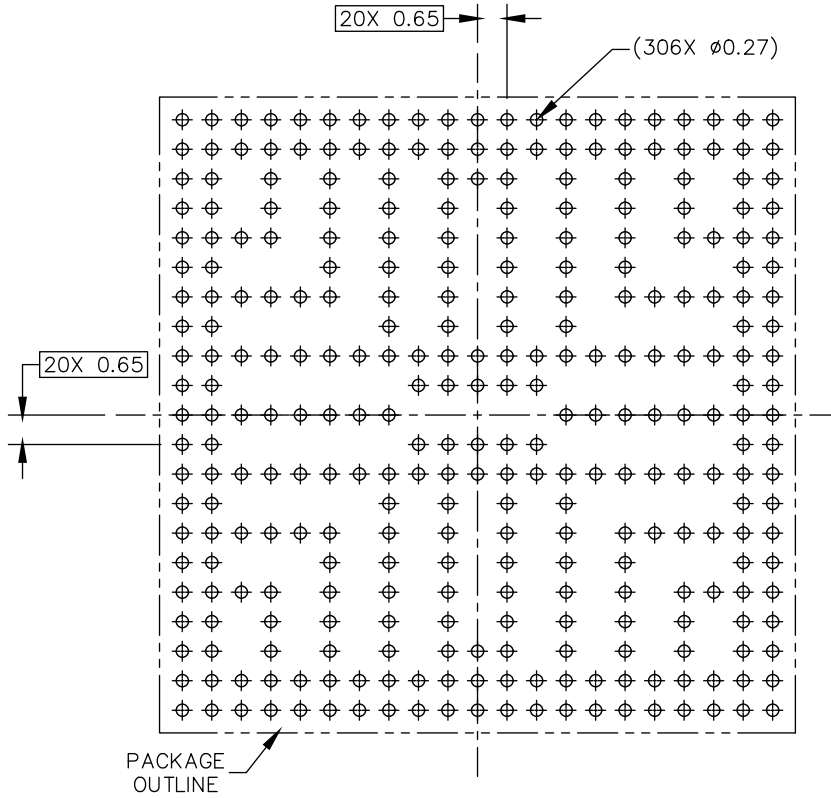
|  |                        |                                |                |
|--|------------------------|--------------------------------|----------------|
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|--|------------------------|--------------------------------|----------------|

Figure 3. Reflow soldering footprint part2 for FC-PBGA306 (SOT2177-1)

FC-PBGA306, flip chip - plastic ball grid array, 306 terminals, 0.65 mm pitch, 14 mm x 14 mm x 1.144 mm body

FC-PBGA-306 I/O  
14 X 14 X 1.144 PKG, 0.65 PITCH

SOT2177-1



RECOMMENDED STENCIL THICKNESS 0.1 MM

PCB DESIGN GUIDELINES – SOLDER PASTE STENCIL

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|  |                        |                                |                |
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|--|------------------------|--------------------------------|----------------|

Figure 4. Reflow soldering footprint part3 for FC-PBGA306 (SOT2177-1)

FC-PBGA306, flip chip - plastic ball grid array, 306 terminals, 0.65 mm pitch, 14 mm x 14 mm x 1.144 mm body

FC-PBGA-306 I/O  
14 X 14 X 1.144 PKG, 0.65 PITCH

SOT2177-1

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.

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|  |                        |                                |                |  |
|--|------------------------|--------------------------------|----------------|--|
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|--|------------------------|--------------------------------|----------------|--|

Figure 5. Package outline note FC-PBGA306 (SOT2177-1)

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