

# SOT2098-1

172 HDQFP\_EP, thermally enhanced High Density Quad Flat  
Package\_Exposed Pad, 172 leads, 16 x 16 x 1.65, 0.65 mm pitch

1 July 2024

Package information



## 1 Package summary

<b>Terminal position code</b>	Q (quad)
<b>Package type descriptive code</b>	172 HDQFP_EP
<b>Package body material type</b>	P (plastic)
<b>JEDEC package outline code</b>	MO-355 F
<b>Mounting method type</b>	S (surface mount)
<b>Issue date</b>	16-08-2023
<b>Manufacturer package code</b>	98ASA01667D

Table 1. Package summary

Parameter	Min	Nom	Max	Unit
package length	15.6	16	16.4	mm
package width	15.6	16	16.4	mm
seated height	-	1.65	1.75	mm
nominal pitch	-	0.65	-	mm
actual quantity of termination	-	172	-	

172 HDQFP\_EP, thermally enhanced High Density Quad Flat Package\_Exposed Pad, 172 leads, 16 x 16 x 1.65, 0.65 mm pitch

2 Package outline

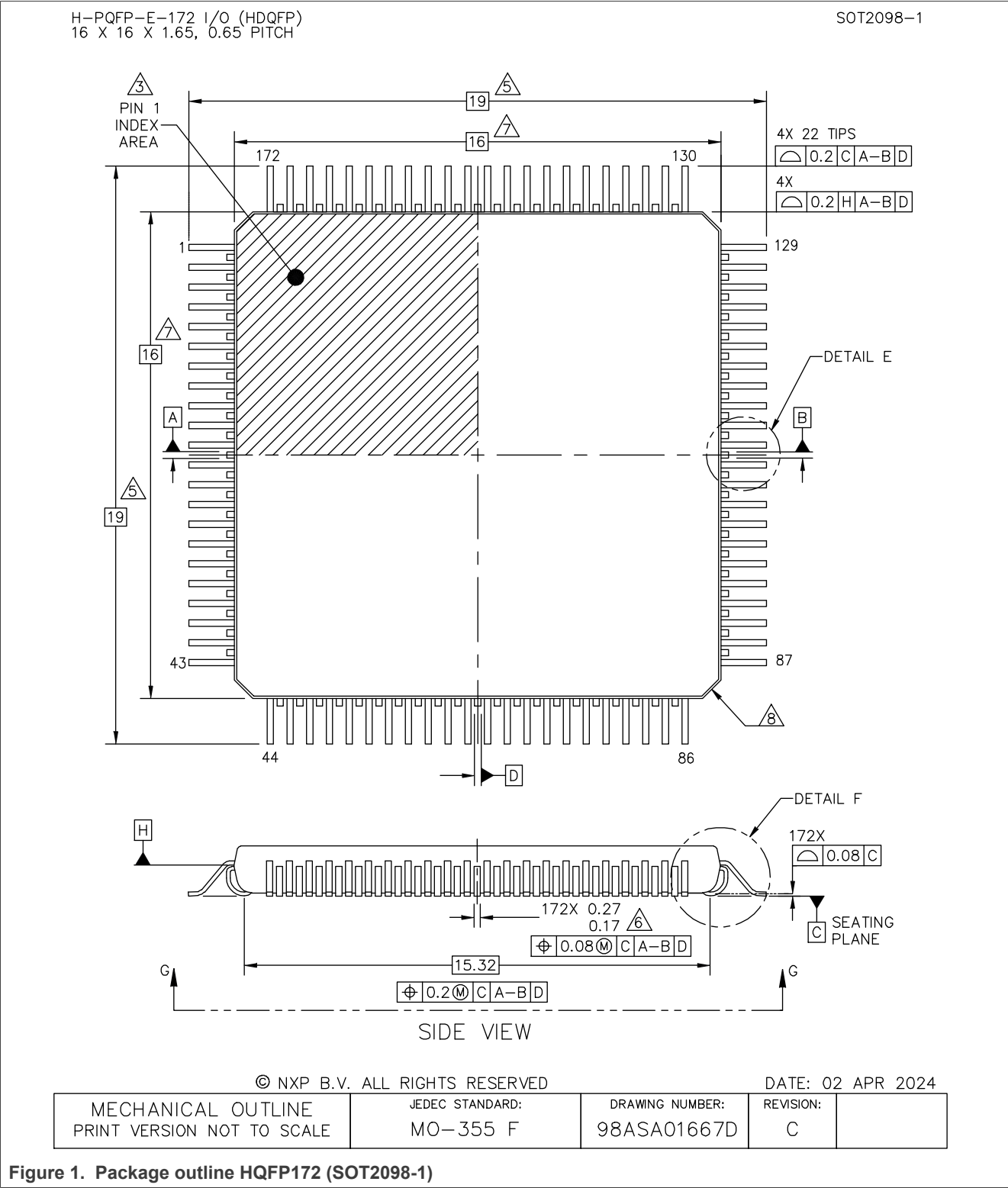
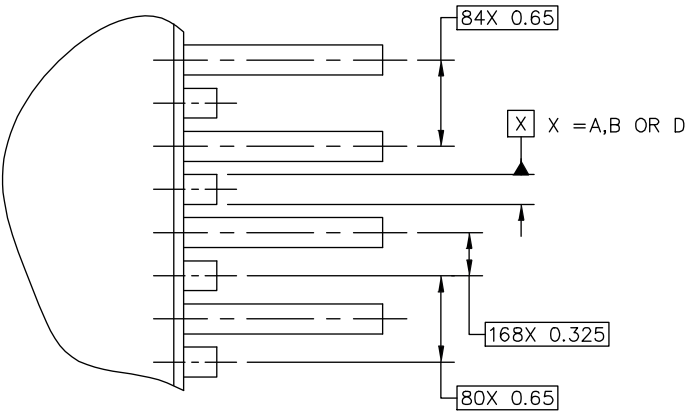


Figure 1. Package outline HQFP172 (SOT2098-1)

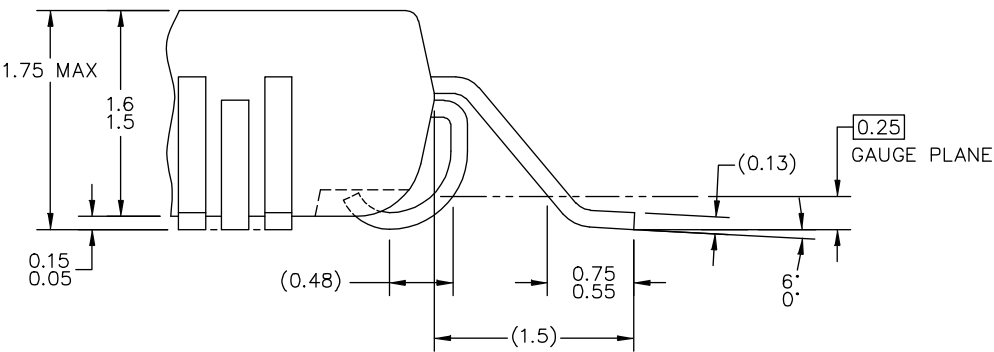
172 HDQFP\_EP, thermally enhanced High Density Quad Flat Package\_Exposed Pad, 172 leads, 16 x 16 x 1.65, 0.65 mm pitch

H-PQFP-E-172 I/O (HDQFP)  
16 X 16 X 1.65, 0.65 PITCH

SOT2098-1



DETAIL E



DETAIL F

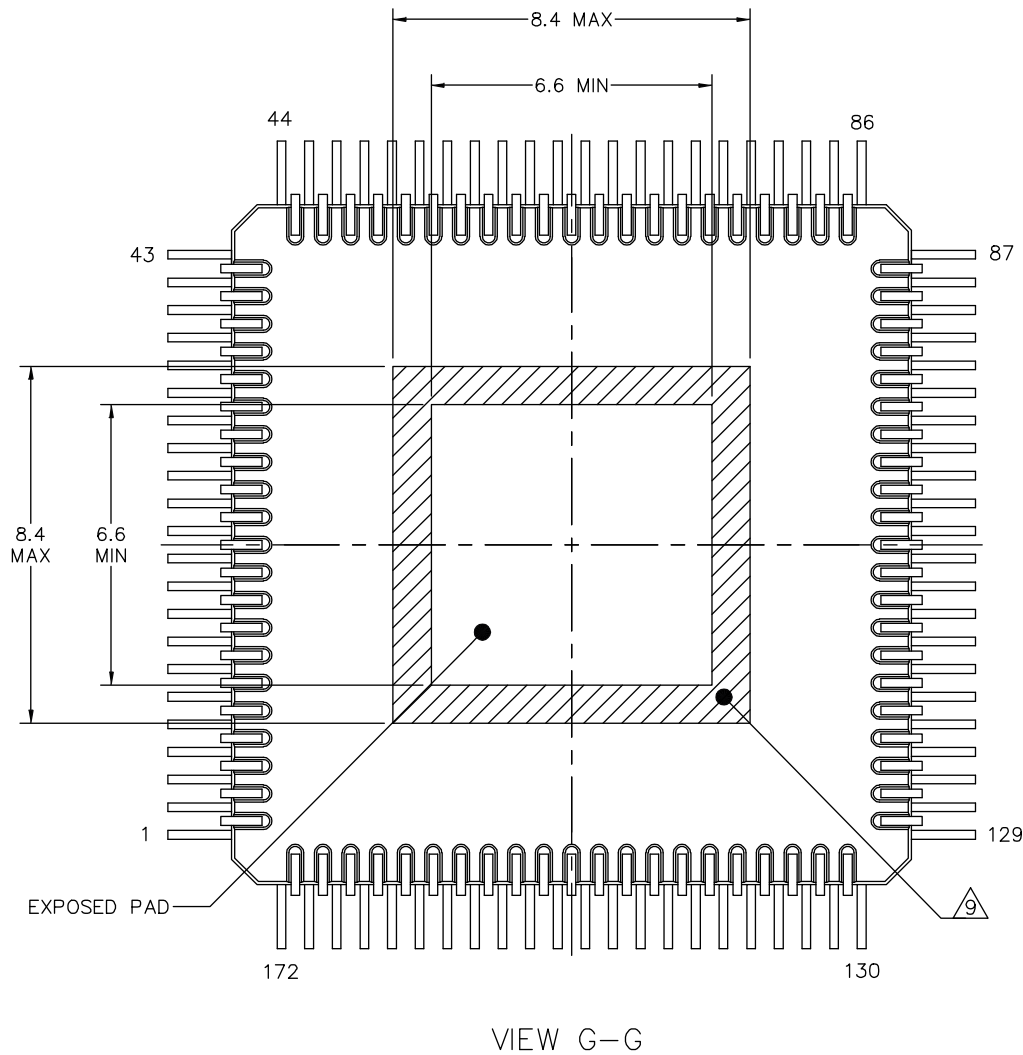
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MECHANICAL OUTLINE PRINT VERSION NOT TO SCALE	JEDEC STANDARD: MO-355 F	DRAWING NUMBER: 98ASA01667D	REVISION: C	

Figure 2. Package outline detail E and F of HQFP172 (SOT2098-1)

172 HDQFP\_EP, thermally enhanced High Density Quad Flat Package\_Exposed Pad, 172 leads, 16 x 16 x 1.65, 0.65 mm pitch

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SOT2098-1



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Figure 3. Package outline detail G of HQFP172 (SOT2098-1)

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3 Soldering

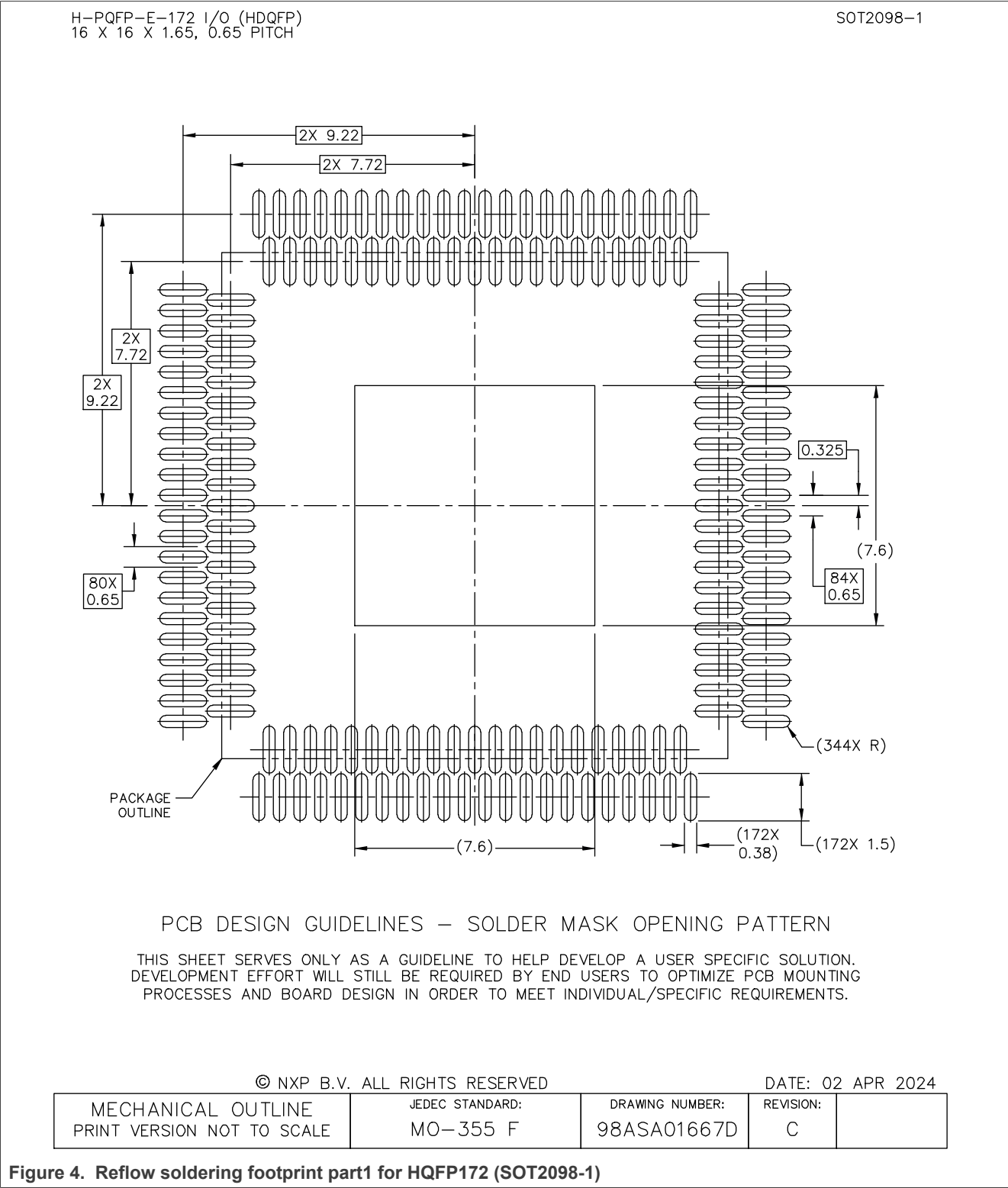
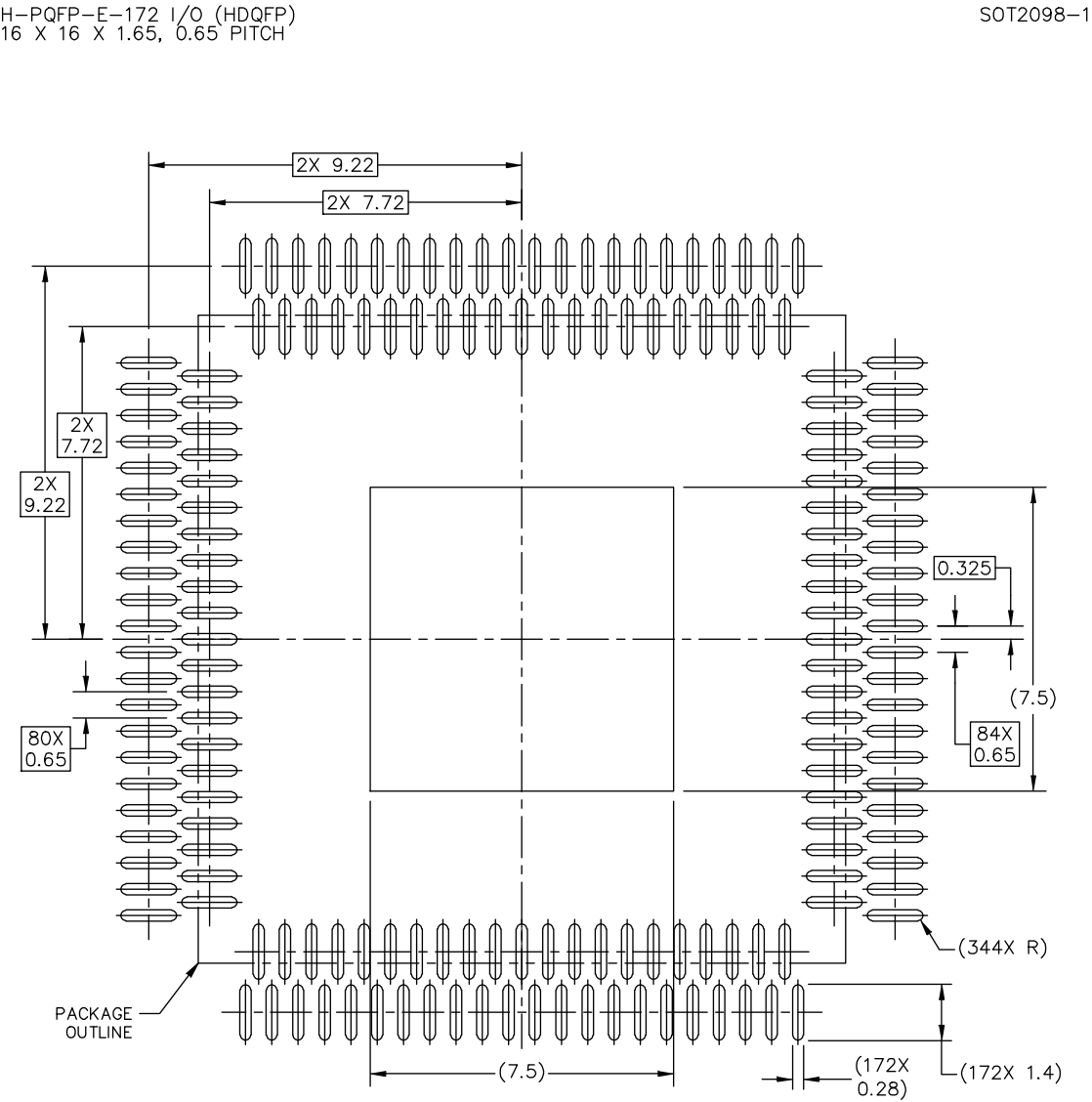


Figure 4. Reflow soldering footprint part1 for HQFP172 (SOT2098-1)

172 HDQFP\_EP, thermally enhanced High Density Quad Flat Package\_Exposed Pad, 172 leads, 16 x 16 x 1.65, 0.65 mm pitch



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.

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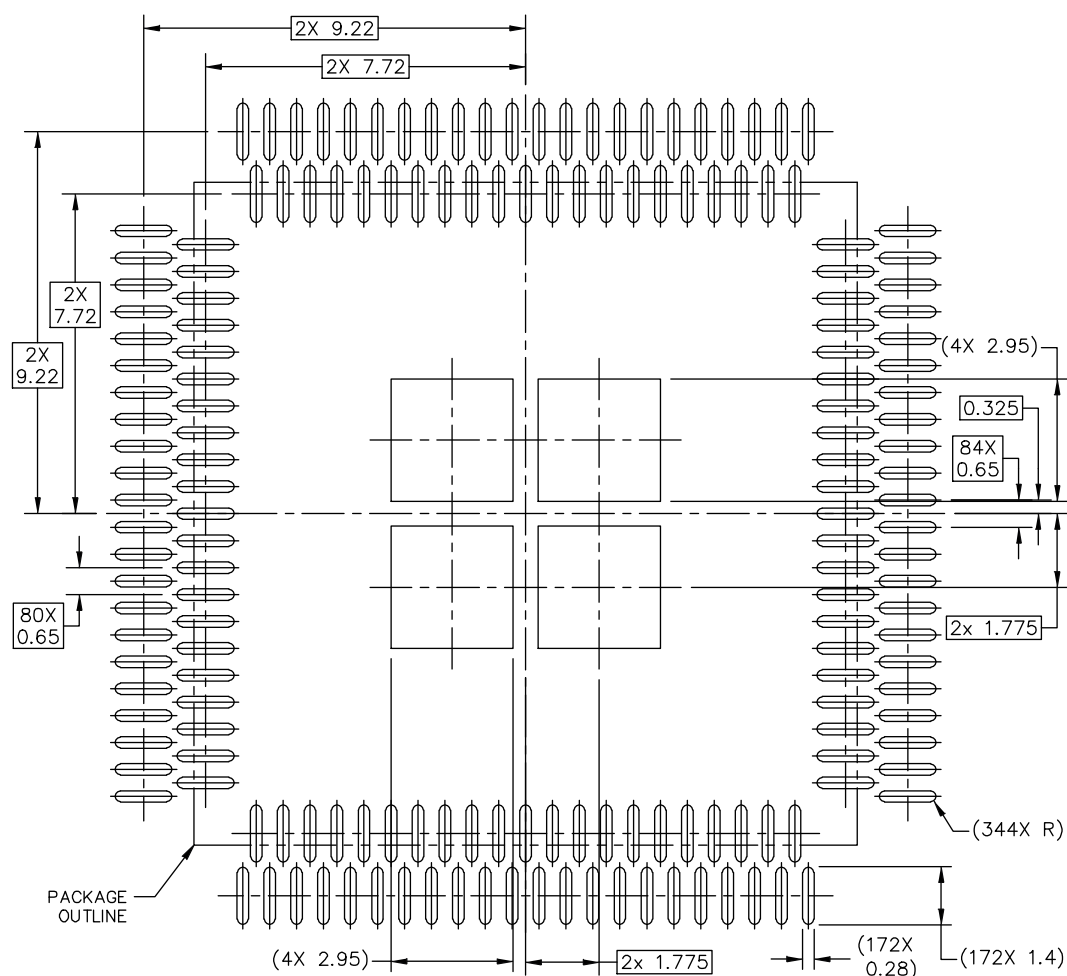
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Figure 5. Reflow soldering footprint part2 for HQFP172 (SOT2098-1)

**172 HDQFP\_EP, thermally enhanced High Density Quad Flat Package\_Exposed Pad, 172 leads, 16  
x 16 x 1.65, 0.65 mm pitch**

H-PQFP-E-172 I/O (HDQFP)  
16 X 16 X 1.65, 0.65 PITCH

SOT2098-1



RECOMMENDED STENCIL THICKNESS 0.125

## PCB DESIGN GUIDELINES – SOLDER PASTE STENCIL

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**Figure 6. Reflow soldering footprint part3 for HQFP172 (SOT2098-1)**

172 HDQFP\_EP, thermally enhanced High Density Quad Flat Package\_Exposed Pad, 172 leads, 16 x 16 x 1.65, 0.65 mm pitch

H-PQFP-E-172 I/O (HDQFP)  
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SOT2098-1

- NOTES:
- 1. DIMENSIONS ARE IN MILLIMETERS.
  - 2. DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.
  - 3. PIN 1 FEATURE SHAPE, SIZE AND LOCATION MAY VARY.
  - 4. DATUMS A, B AND D TO BE DETERMINED AT DATUM PLANE H.
  - 5. DIMENSION TO BE DETERMINED AT SEATING PLANE C.
  - 6. THIS DIMENSION DOES NOT INCLUDE DAMBAR PROTRUSION. ALLOWABLE DAMBAR PROTRUSION SHALL NOT CAUSE THE LEAD WIDTH TO EXCEED THE UPPER LIMIT BY MORE THAN 0.08MM AT MAXIMUM MATERIAL CONDITION. DAMBAR CANNOT BE LOCATED ON THE LOWER RADIUS OR THE FOOT. MINIMUM SPACE BETWEEN PROTRUSION AND ADJACENT LEAD SHALL NOT BE LESS THAN 0.07MM.
  - 7. THIS DIMENSION DOES NOT INCLUDE MOLD PROTRUSION. ALLOWABLE PROTRUSION IS 0.25MM PER SIDE. THIS DIMENSION IS MAXIMUM PLASTIC BODY SIZE DIMENSION INCLUDING MOLD MISMATCH.
  - 8. EXACT SHAPE OF EACH CORNER IS OPTIONAL.
  - 9. HATCHED AREA REPRESENTS POSSIBLE MOLD FLASH ON EXPOSED PAD.

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Figure 7. Package outline note HQFP172 (SOT2098-1)



## 4 Legal information

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Contents

1	Package summary .....	1
2	Package outline .....	2
3	Soldering .....	5
4	Legal information .....	9