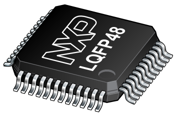


# SOT1571-1

## HLQFP48, plastic, thermal enhanced low profile quad flat package; 48 terminals; 0.5 mm pitch; 7 mm x 7 mm x 1.4 mm body

12 November 2019 Package information

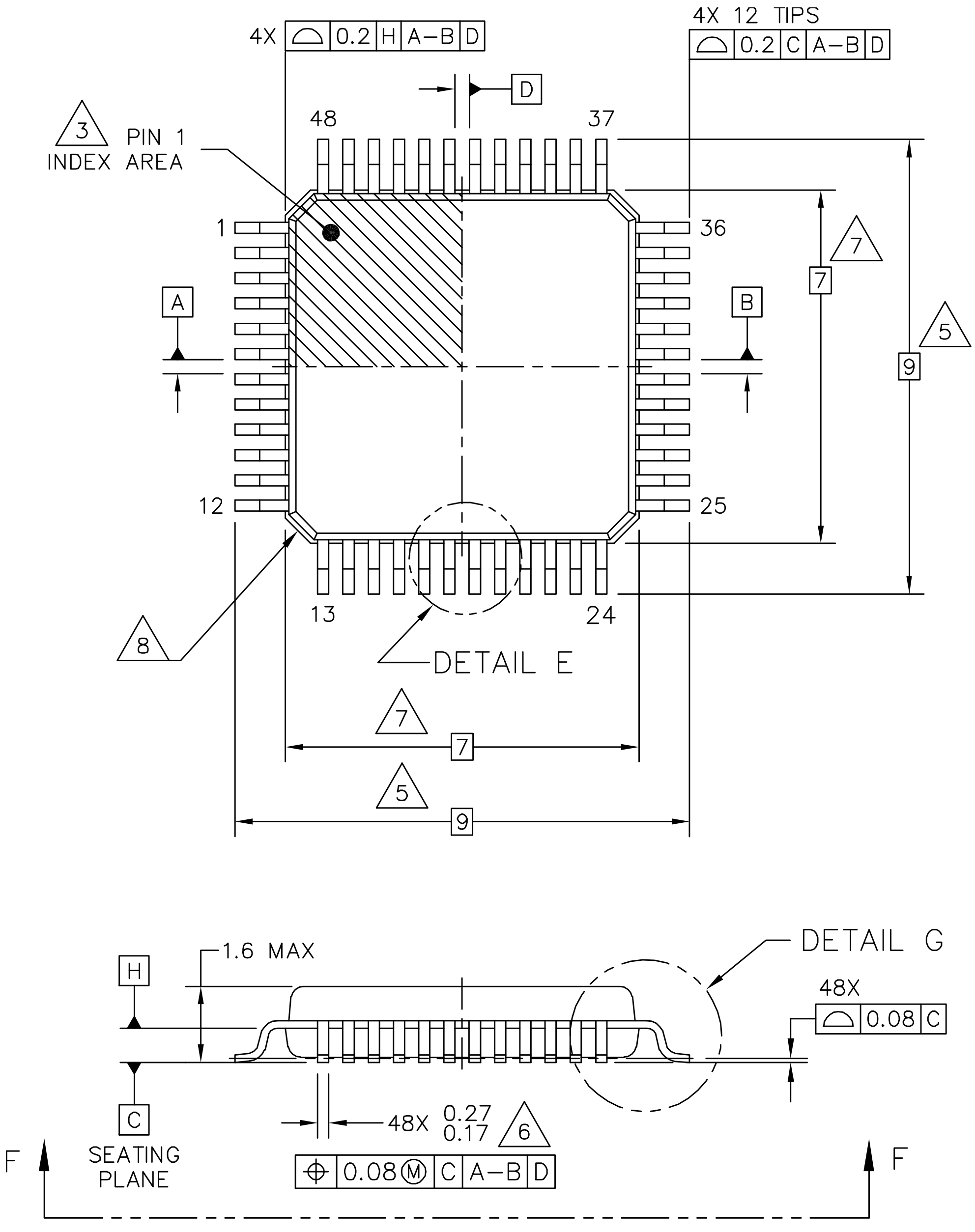
## 1 Package summary

| | |
|---|---|
| **Terminal position code** | Q (quad) |
| **Package type descriptive code** | HLQFP48 |
| **Package style descriptive code** | HLQFP (thermal enhanced low profile quad flat package) |
| **Package body material type** | P (plastic) |
| **JEDEC package outline code** | MS-026-BBC |
| **Mounting method type** | S (surface mount) |
| **Issue date** | 14-12-2017 |
| **Manufacturer package code** | 98ASA00173D |

Table 1. Package summary

| Parameter | Min | Nom | Max | Unit |
|---|---|---|---|---|
| package length | 6.8 | 7 | 7.2 | mm |
| package width | 6.8 | 7 | 7.2 | mm |
| package height | - | 1.4 | 1.6 | mm |
| nominal pitch | - | 0.5 | - | mm |
| actual quantity of termination | - | 48 | - | |

## 2 Package outline



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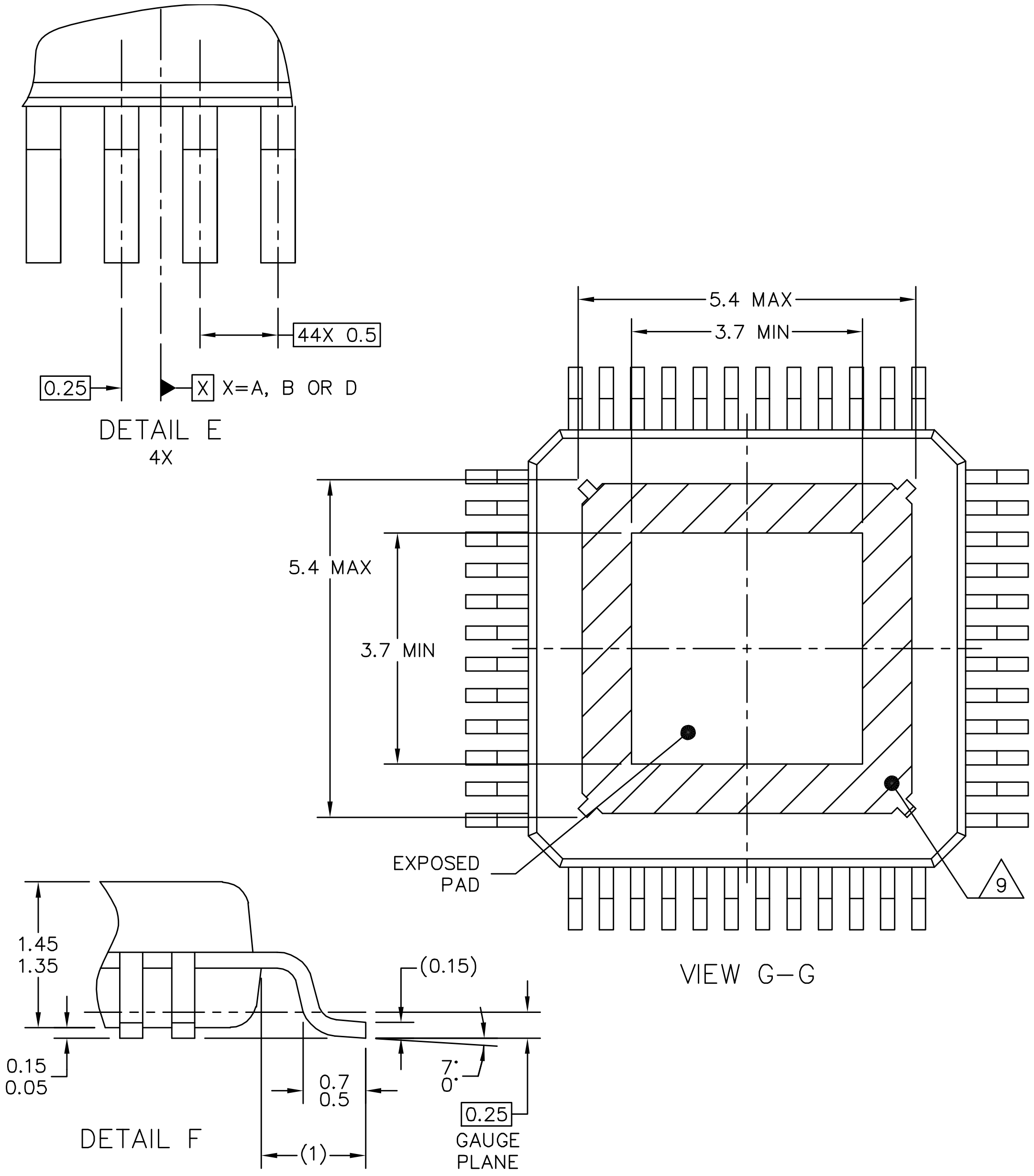
| MECHANICAL OUTLINE<br>PRINT VERSION NOT TO SCALE | STANDARD:<br>JEDEC MS−026 BBC | DRAWING NUMBER:<br>SOT1571−1 | REVISION:<br>F | |
|---|---|---|---|---|

**Figure 1. Package outline LQFP48 (SOT1571-1)**

## HLQFP48, plastic, thermal enhanced low profile quad flat package; 48 terminals; 0.5 mm pitch; 7 mm x 7 mm x 1.4 mm body



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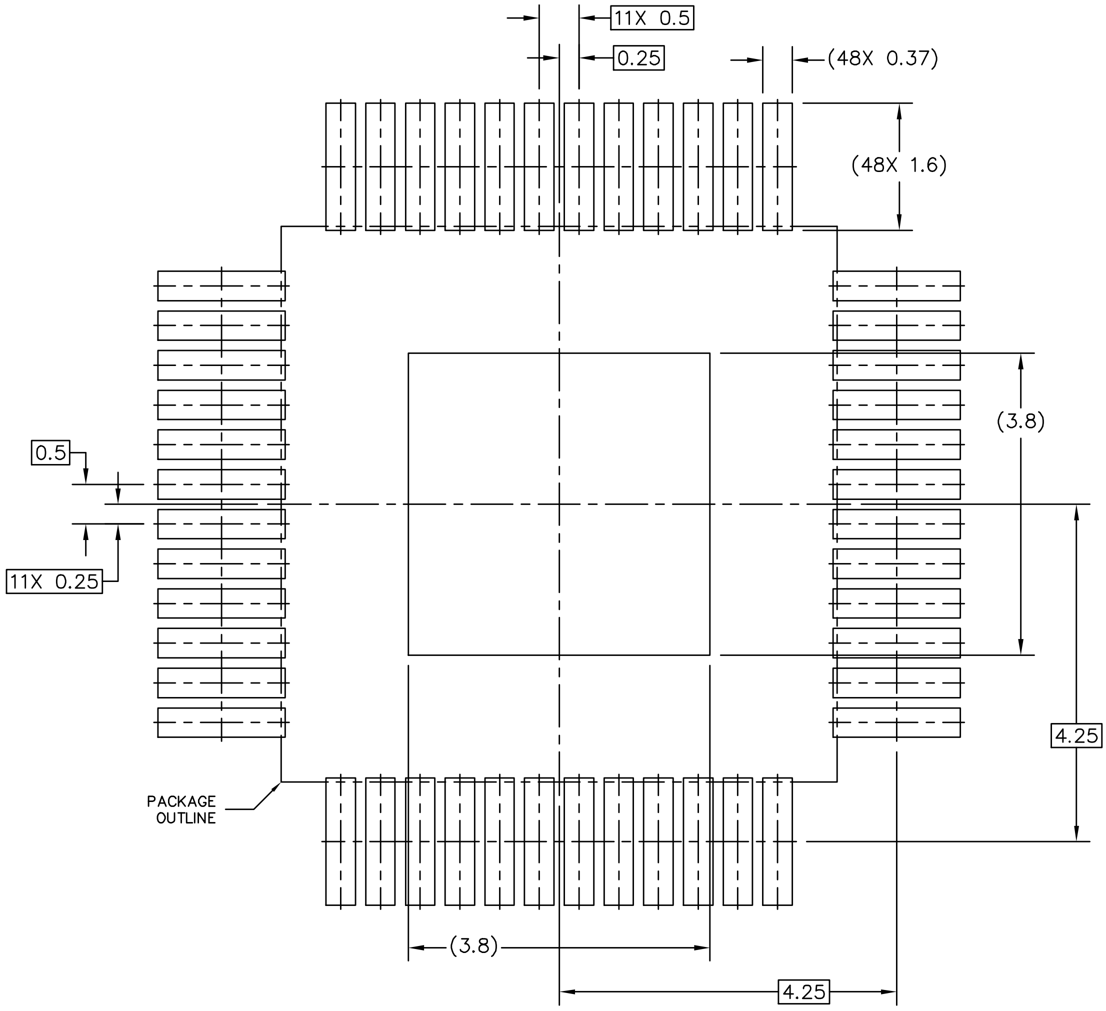
| MECHANICAL OUTLINE<br>PRINT VERSION NOT TO SCALE | STANDARD:<br>JEDEC MS-026 BBC | DRAWING NUMBER:<br>SOT1571-1 | REVISION:<br>F | |
|---|---|---|---|---|

Figure 2. Package outline dt1 LQFP48 (SOT1571-1)

## 3 Soldering



PCB DESIGN GUIDELINES – SOLDER MASK OPENING PATTERN

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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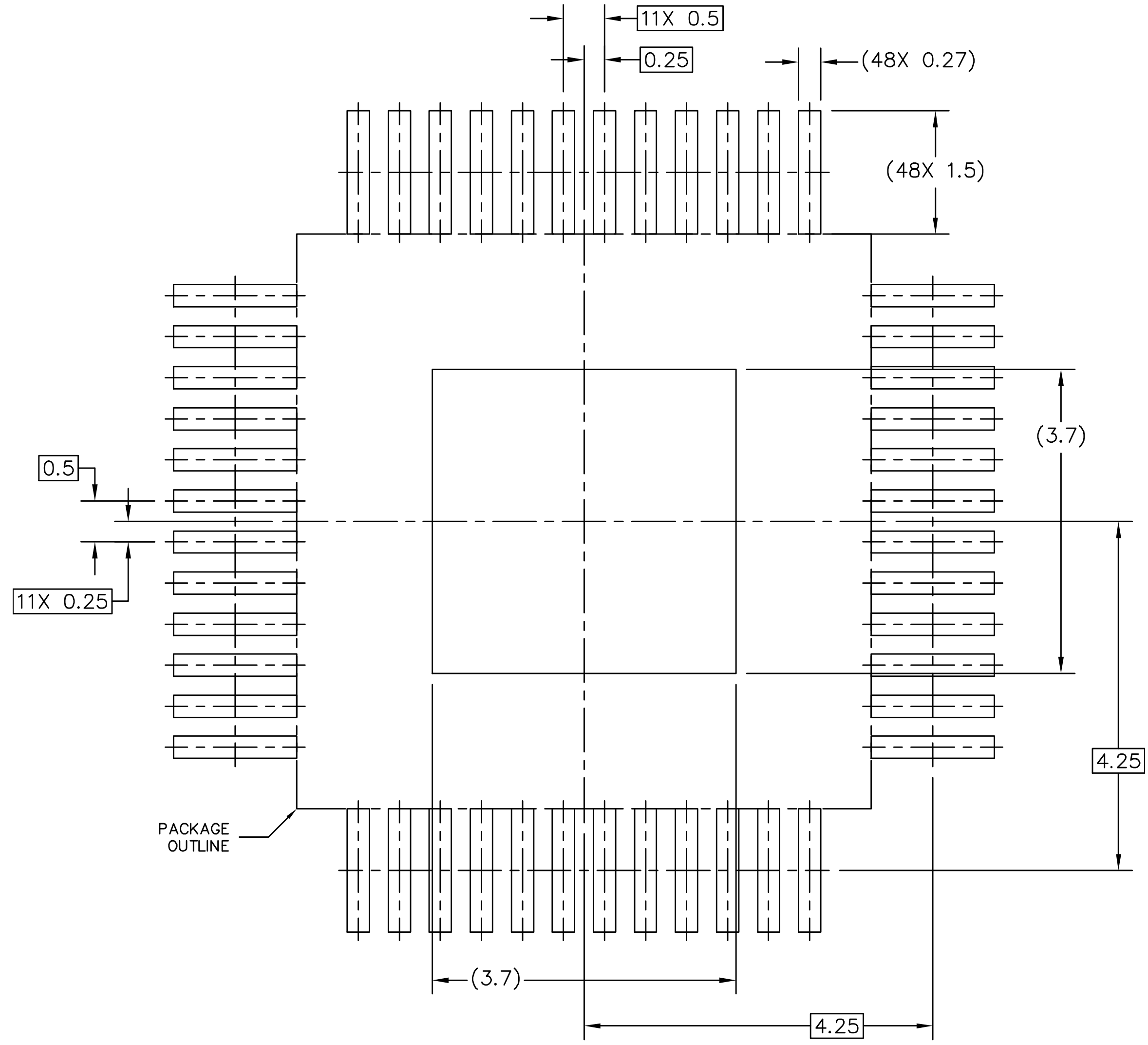
| | | | | |
|---|---|---|---|---|
| MECHANICAL OUTLINE<br>PRINT VERSION NOT TO SCALE | STANDARD:<br>JEDEC MS–026 BBC | DRAWING NUMBER:<br>SOT1571–1 | REVISION:<br>F | |

Figure 3. Reflow soldering footprint part1 for HLQFP48 (SOT1571-1)



PCB DESIGN GUIDELINES – I/O PADS AND SOLDERABLE AREA

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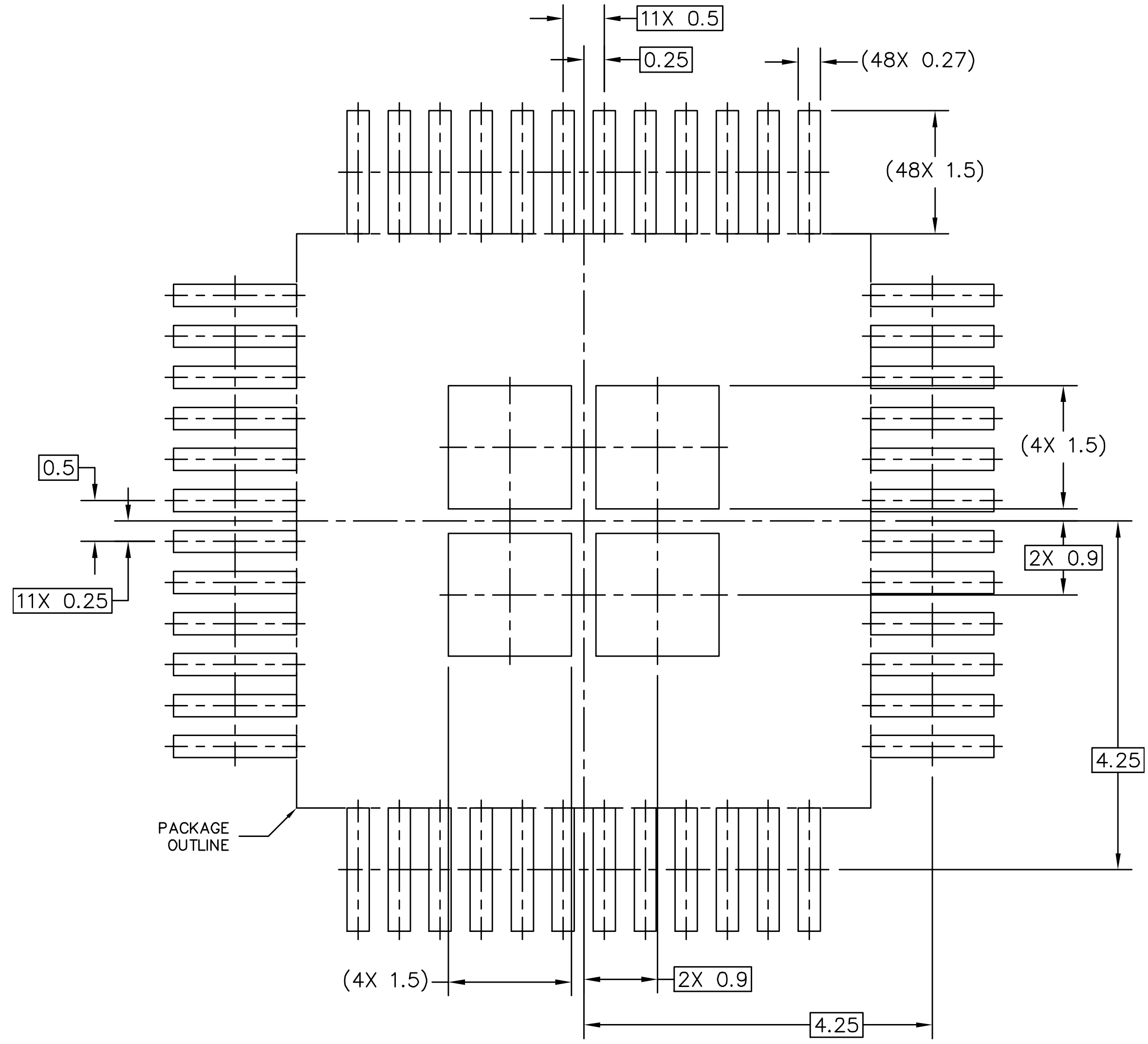
| | | | | |
|---|---|---|---|---|
| MECHANICAL OUTLINE<br>PRINT VERSION NOT TO SCALE | STANDARD:<br>JEDEC MS–026 BBC | DRAWING NUMBER:<br>SOT1571–1 | REVISION:<br>F | |

**Figure 4. Reflow soldering footprint part2 for HLQFP48 (SOT1571-1)**

## HLQFP48, plastic, thermal enhanced low profile quad flat package; 48 terminals; 0.5 mm pitch; 7 mm x 7 mm x 1.4 mm body



STENCIL THICKNESS 0.125 OR 0.150

PCB DESIGN GUIDELINES – SOLDER PASTE STENCIL

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DATE: 14 DEC 2017

| | | | | |
|---|---|---|---|---|
| MECHANICAL OUTLINE<br>PRINT VERSION NOT TO SCALE | STANDARD:<br>JEDEC MS−026 BBC | DRAWING NUMBER:<br>SOT1571−1 | REVISION:<br>F | |

**Figure 5. Reflow soldering footprint part3 for HLQFP48 (SOT1571-1)**

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 TO BE KEEP OUT ZONE FOR PCB ROUTING.

DATE: 14 DEC 2017

| | | | | |
|---|---|---|---|---|
| MECHANICAL OUTLINE<br>PRINT VERSION NOT TO SCALE | STANDARD:<br>JEDEC MS−026 BBC | DRAWING NUMBER:<br>SOT1571−1 | REVISION:<br>F | |

Figure 6. Package outline note LQFP48 (SOT1571-1)

## 4 Legal information

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# SOT1571-1

## HLQFP48, plastic, thermal enhanced low profile quad flat package; 48 terminals; 0.5 mm pitch; 7 mm x 7 mm x 1.4 mm body

## Contents

For more information, please visit: http://www.nxp.com
For sales office addresses, please send an email to: salesaddresses@nxp.com

**Date of release: 12 November 2019**