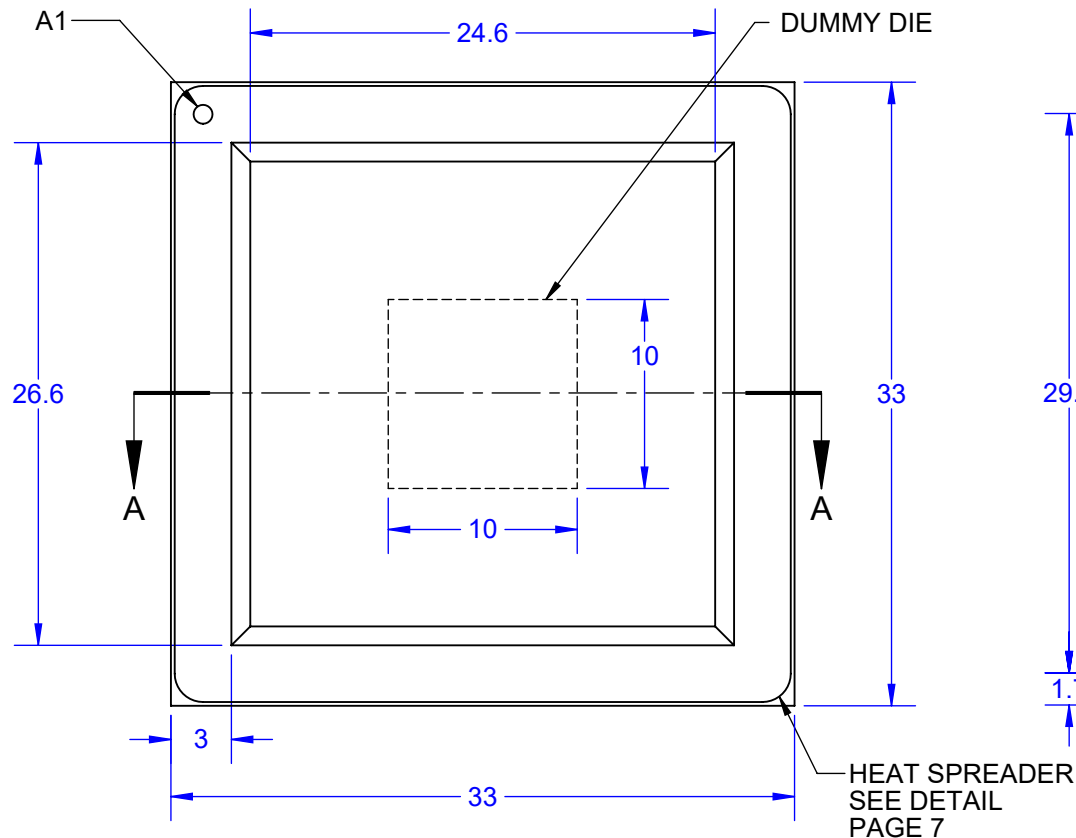
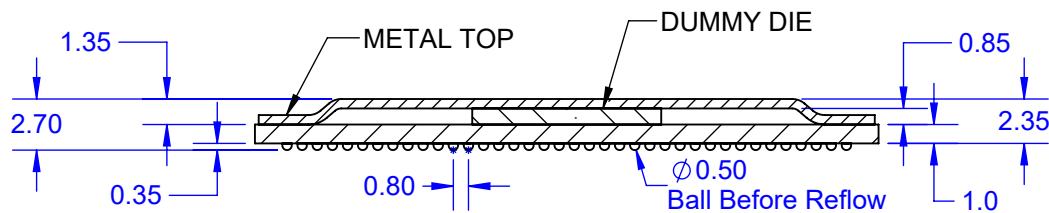
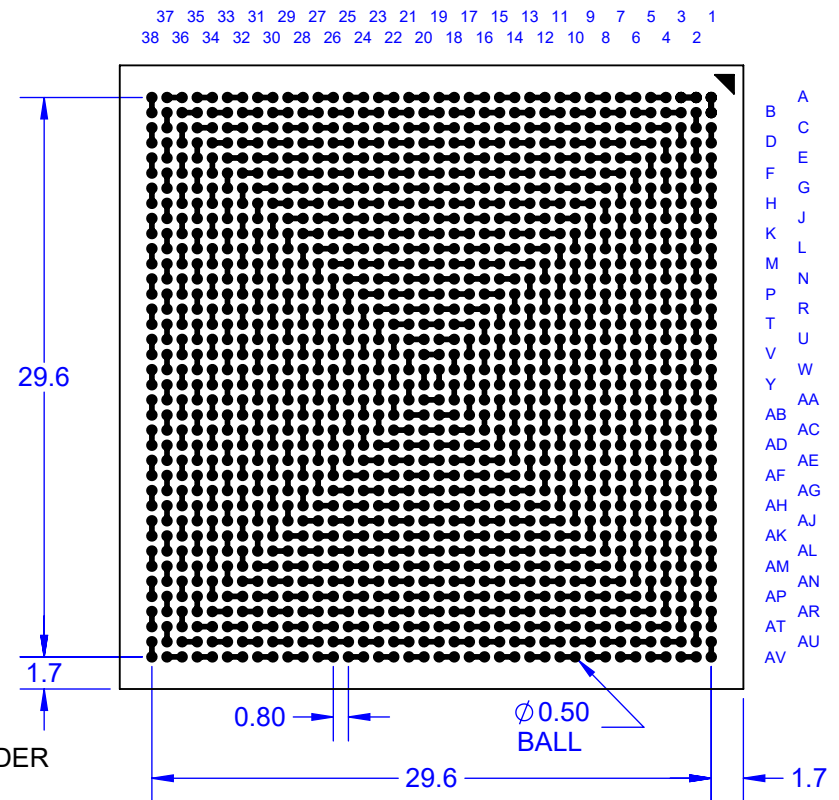


## TOP VIEW



## BALL VIEW



SECTION A-A

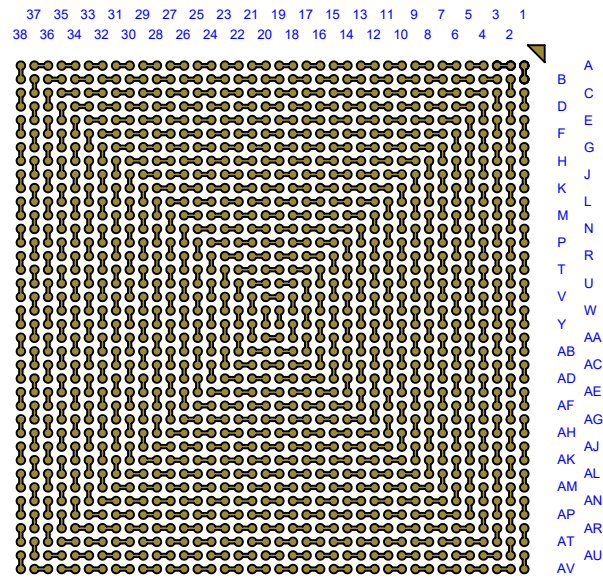
Notes: (Unless Otherwise Specified).

- 1) ALL DIMENSIONS ARE IN MM.
- 2) SOLDER BALL ALLOY: SEE PART NUMBER TABLE.
- 3) BALL DIAMETER (BEFORE REFLOW) 0.50mm [20 MIL].
- 4) SOLDER MASK DEFINED PAD OPENING: 0.40mm [16 MIL].
- 5) PAD Cu DIAMETER: 0.508mm [20 MIL].
- 6) SUBSTRATE MATERIAL: BT.
- 7) DUMMY DIE: Si (SILICON).
- 8) DAISY CHAIN PATTERN (SEE PAGE 2).
- 9) MSL-3 RECOMMENDED BAKING 24 HOURS @ 125°C TO REMOVE MOISTURE PRIOR TO SOLDERING TO PC BOARD.

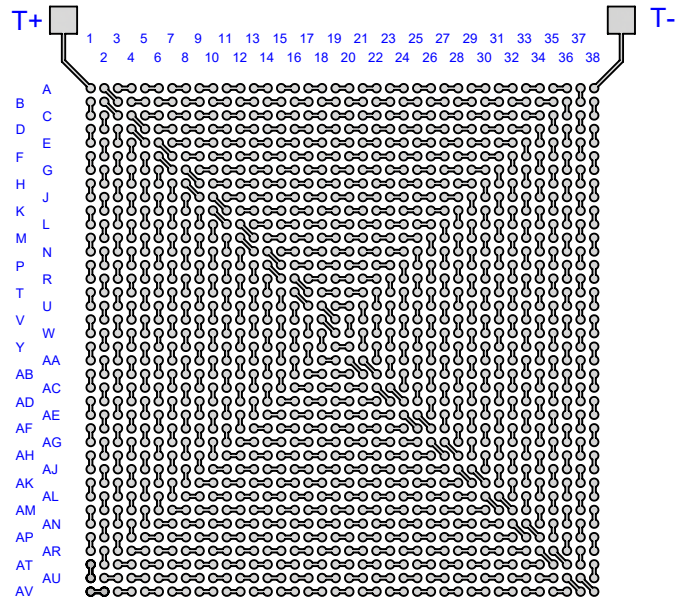
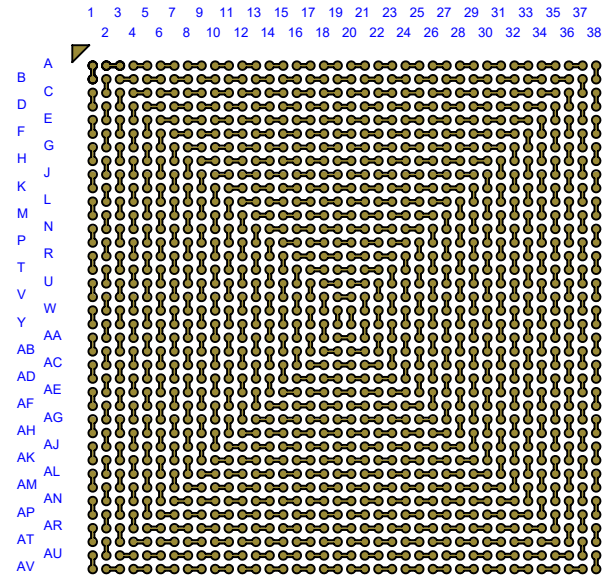
| PART NUMBER TABLE    |                    |            |      |        |
|----------------------|--------------------|------------|------|--------|
| PART NUMBER          | BALL METAL         | BALL ALLOY | RoHS | Si DIE |
| SBGA1444T1.0C-DC389D | Sn96.5/Ag3.0/Cu0.5 | SAC305     | YES  | YES    |
| SBGA1444T1.0-DC389D  | Sn63/Pb37          | Sn63       | NO   | YES    |

|             |          |                                               |        |                    |              |
|-------------|----------|-----------------------------------------------|--------|--------------------|--------------|
| APPROVALS   | DATE     |                                               |        |                    |              |
| DRAWN T.Au  | 4/5/2025 |                                               |        |                    |              |
| ENG M. Hart | 4/5/2025 | TITLE SBGA1444T.8-DC389D<br>DAISY CHAIN DUMMY |        |                    |              |
| MFG         |          |                                               |        |                    |              |
| QA          |          | SCALE 2.5:1                                   | SIZE A | DRAWING NO. 583895 | REV A        |
| CUST        |          |                                               |        |                    |              |
| REVISED     |          | DO NOT SCALE DRAWING                          |        |                    | SHEET 1 OF 9 |

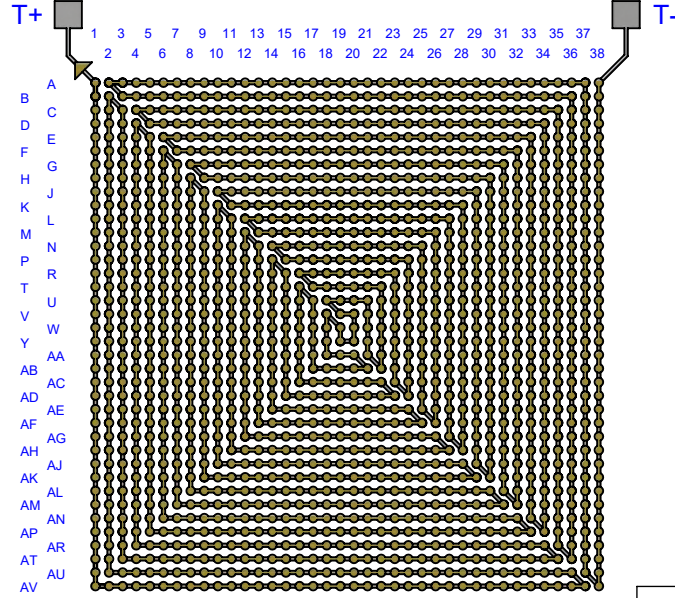
## BALL VIEW



## BOTTOM SIDE (TOP X-RAY VIEW)



## TEST VEHICLE BOARD



## AFTER MOUNTING

Notes: (Unless Otherwise Specified).

- 1) PCB BOARD DIMENSIONS ARE PRESENTED ONLY AS A GUIDELINE DESIGNERS SHOULD USE THEIR OWN KNOWLEDGE WHEN DESIGNING THE PCB.
- 2) PCB Cu BALL PAD DIAMETER: 0.508mm [20 MIL].
- 3) PCB DAISY CHAIN TRACING LINE WIDTH: 0.20mm [8 MIL].
- 4) SMD (SOLDERMASK DEFINED) PAD OPENING: 0.40mm [16 MIL].

**TopLine®**

TITLE SBGA1444T.8-DC389D  
DAISY CHAIN DUMMY

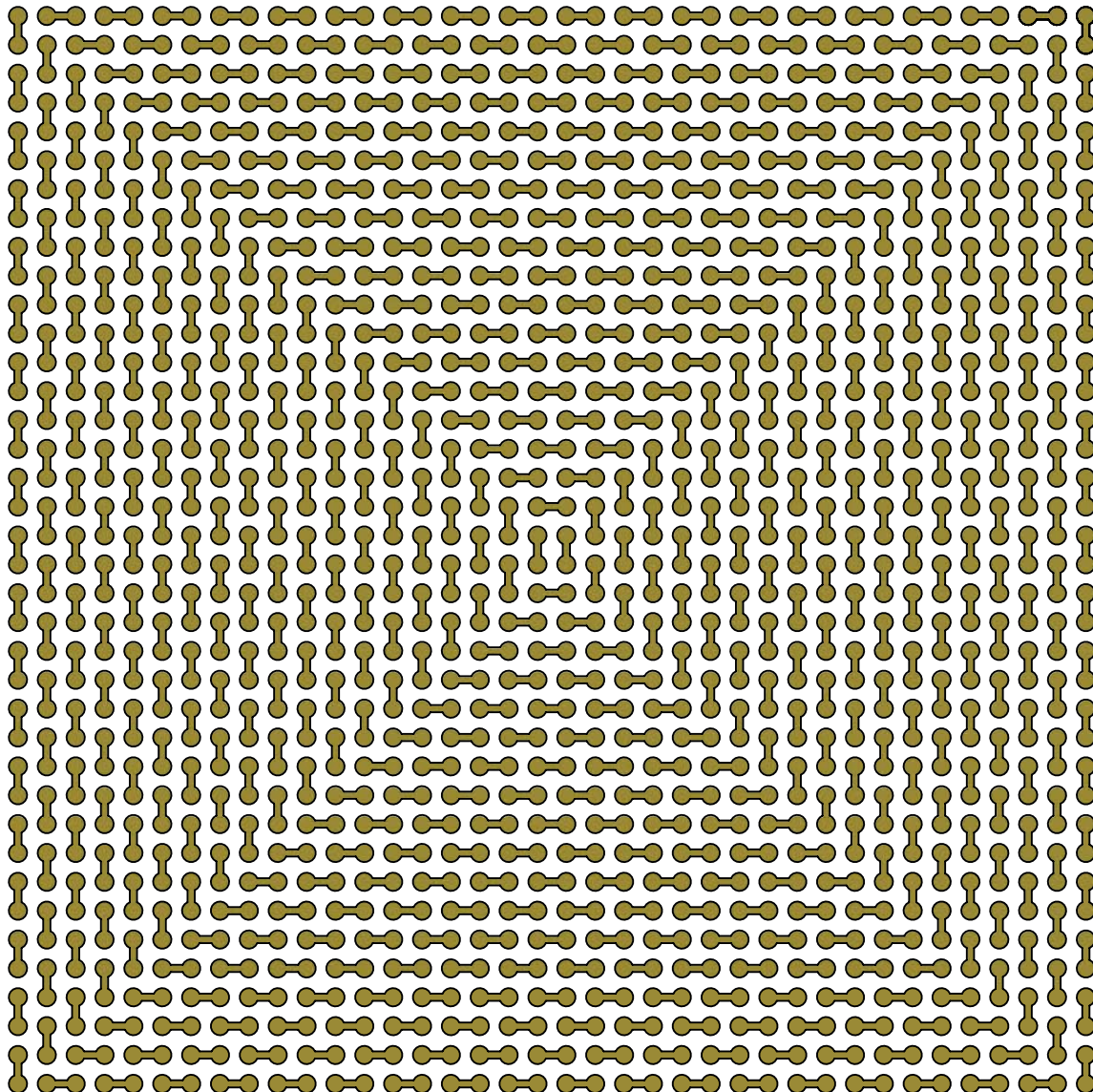
|              |           |                       |          |
|--------------|-----------|-----------------------|----------|
| SCALE<br>5:2 | SIZE<br>A | DRAWING NO.<br>583895 | REV<br>A |
|--------------|-----------|-----------------------|----------|

DO NOT SCALE DRAWING

SHEET 2 OF 9

# BALL VIEW

37 35 33 31 29 27 25 23 21 19 17 15 13 11 9 7 5 3 1  
38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2



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**TopLine®**

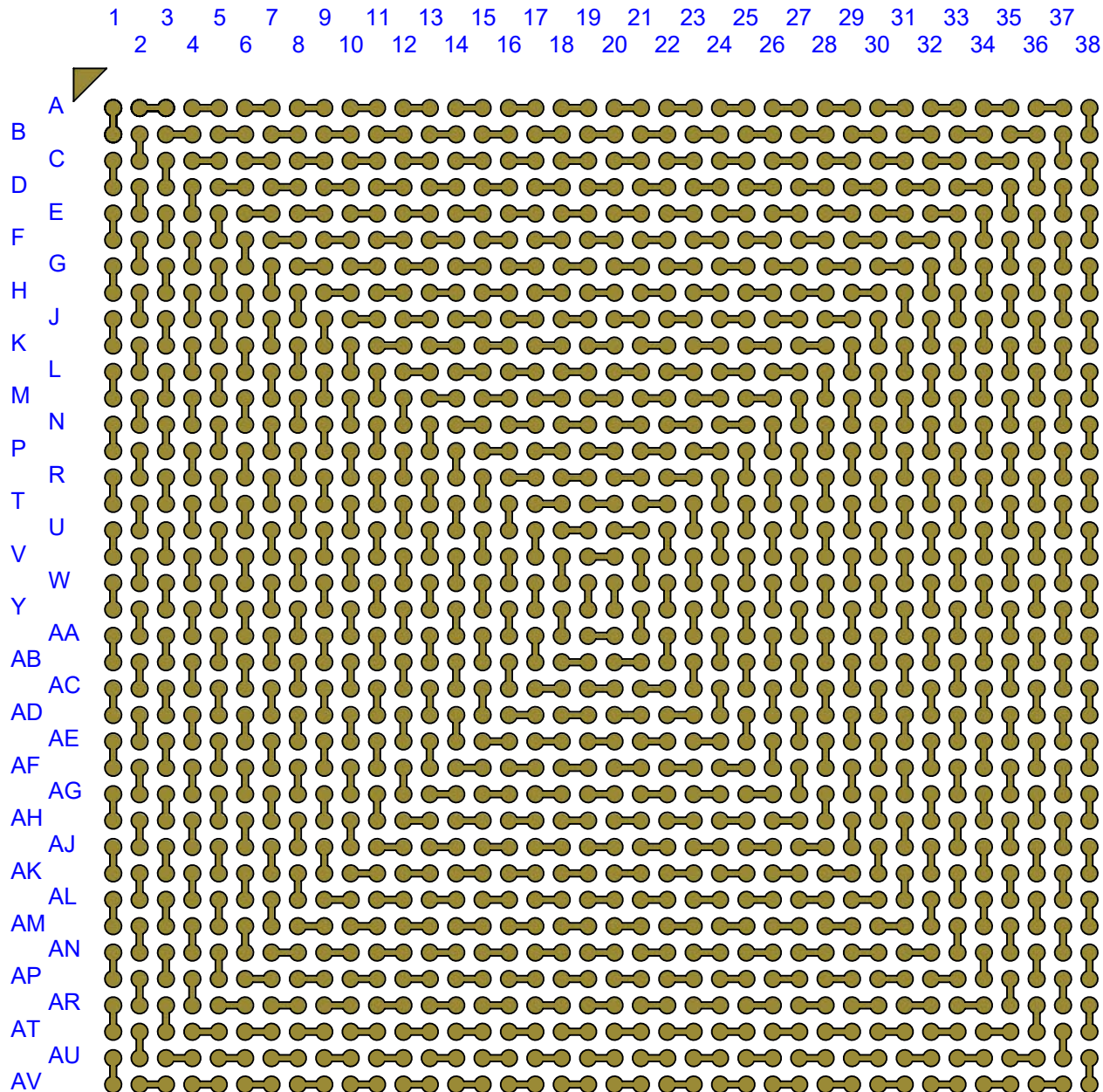
TITLE SBGA1444T.8-DC389D  
DAISY CHAIN DUMMY

|              |           |                       |          |
|--------------|-----------|-----------------------|----------|
| SCALE<br>5:1 | SIZE<br>A | DRAWING NO.<br>583895 | REV<br>A |
|--------------|-----------|-----------------------|----------|

DO NOT SCALE DRAWING

SHEET 3 OF 9

# BOTTOM SIDE (TOP X-RAY VIEW)



**TopLine®**

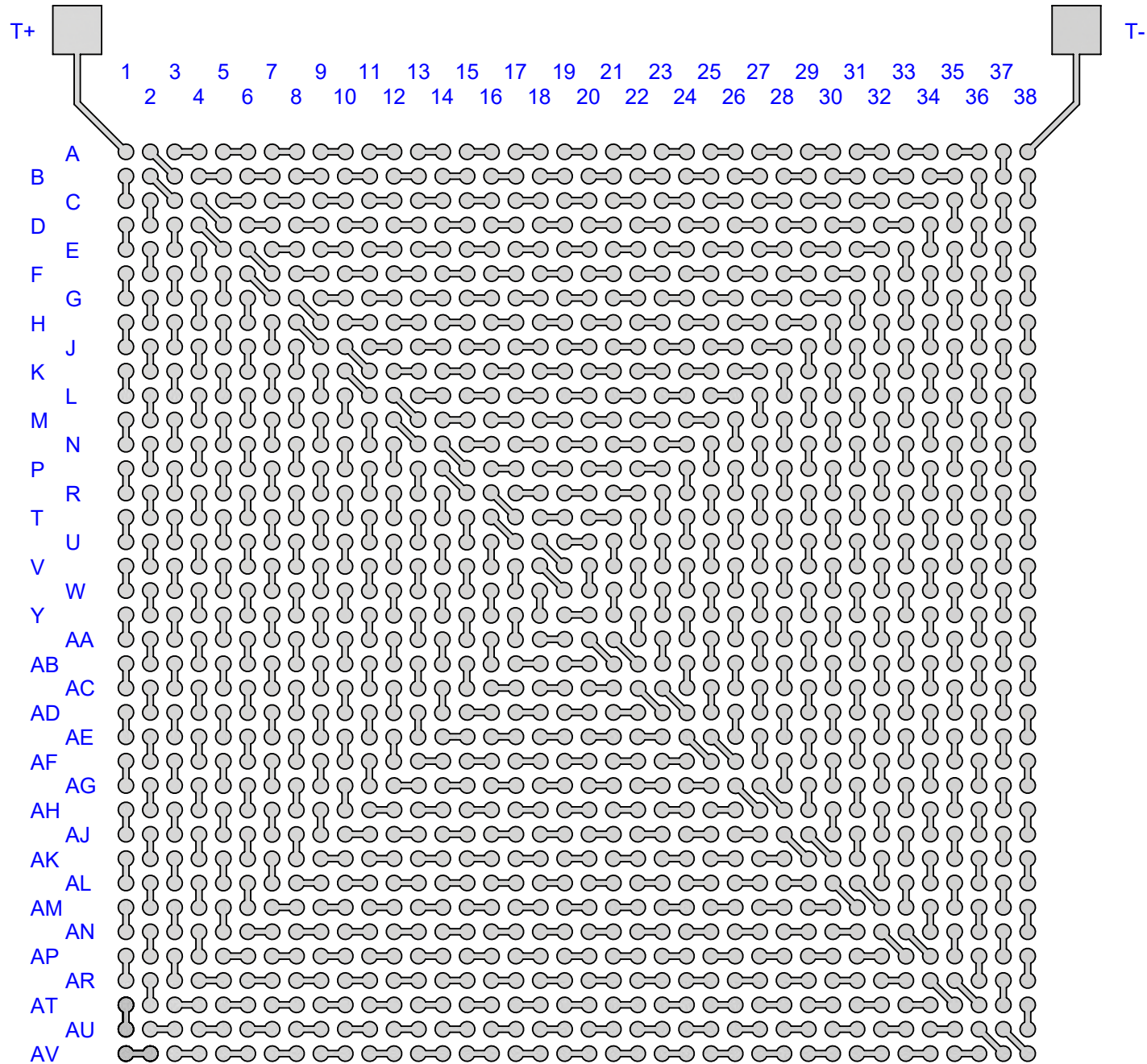
TITLE SBGA1444T.8-DC389D  
DAISY CHAIN DUMMY

|              |           |                       |          |
|--------------|-----------|-----------------------|----------|
| SCALE<br>5:1 | SIZE<br>A | DRAWING NO.<br>583895 | REV<br>A |
|--------------|-----------|-----------------------|----------|

DO NOT SCALE DRAWING

SHEET 4 OF 9

# TEST VEHICLE BOARD



**TopLine®**

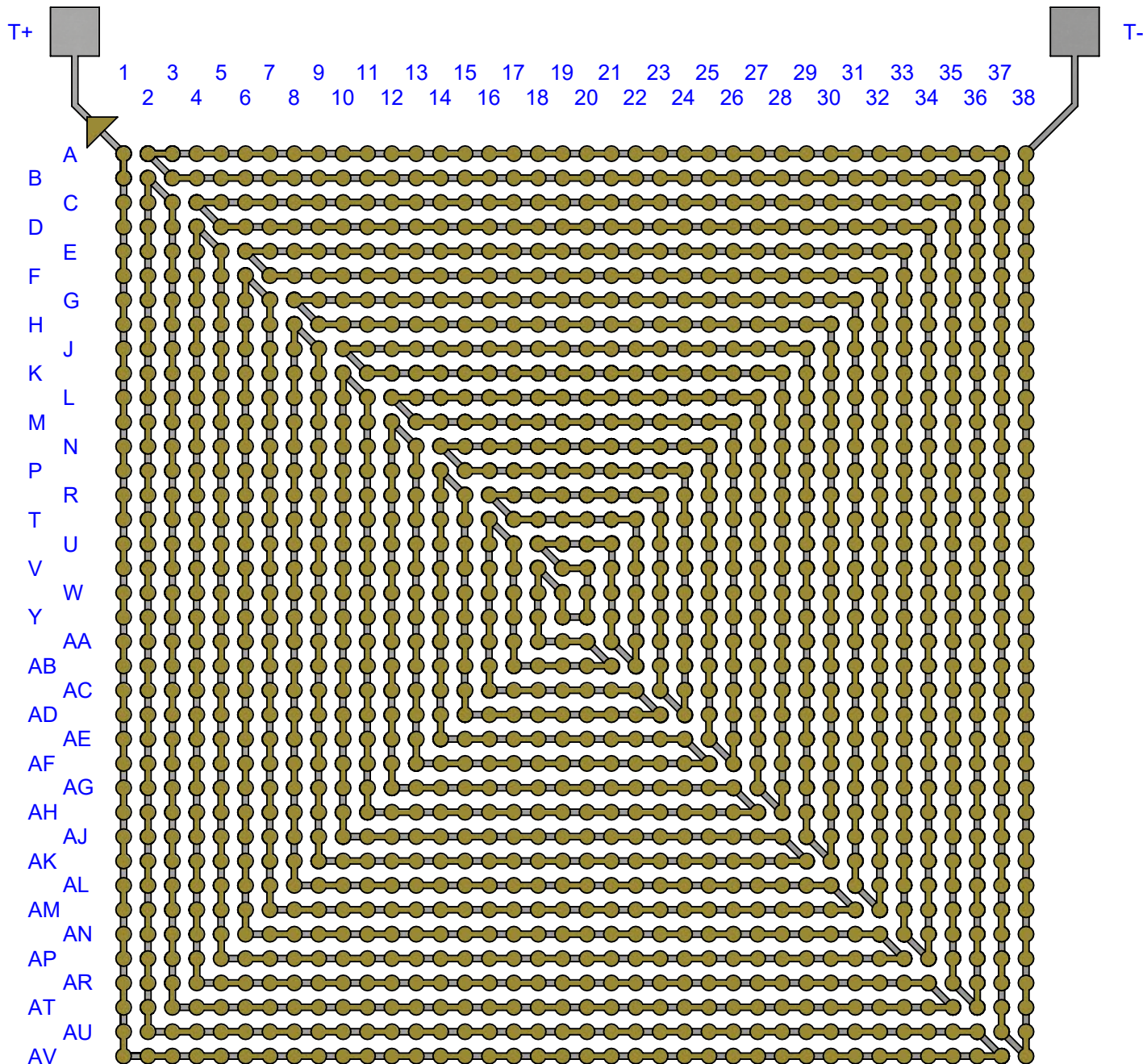
TITLE SBGA1444T.8-DC389D  
DAISY CHAIN DUMMY

|              |           |                       |          |
|--------------|-----------|-----------------------|----------|
| SCALE<br>5:1 | SIZE<br>A | DRAWING NO.<br>583895 | REV<br>A |
|--------------|-----------|-----------------------|----------|

DO NOT SCALE DRAWING

SHEET 5 OF 9

# AFTER MOUNTING TO TEST BOARD



**TopLine®**

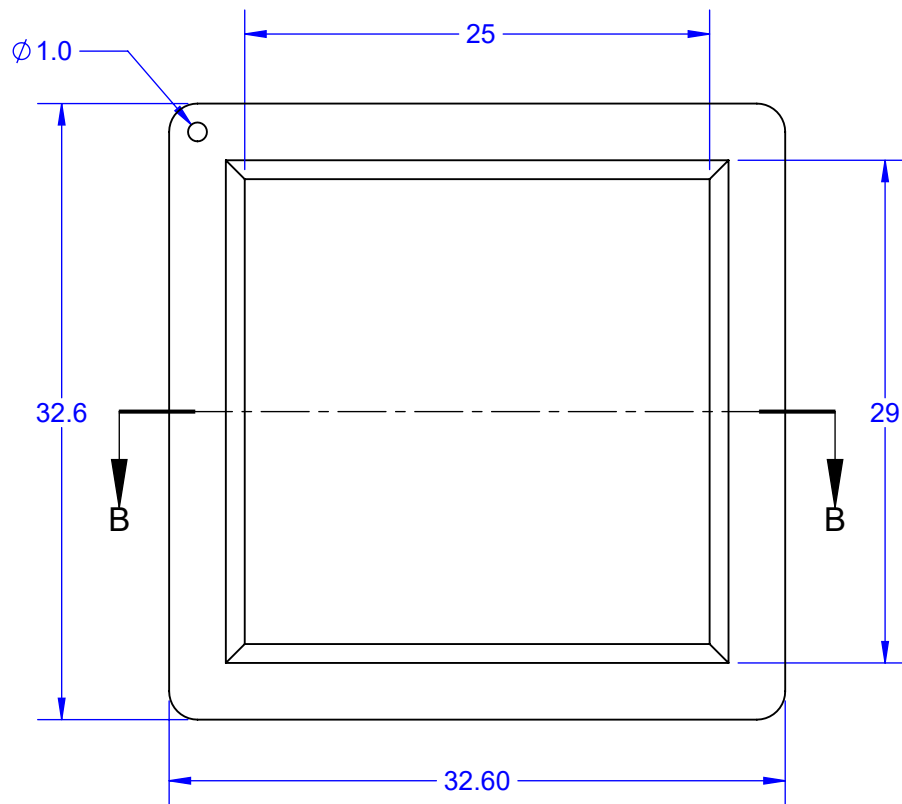
TITLE SBGA1444T.8-DC389D  
DAISY CHAIN DUMMY

|              |           |                       |          |
|--------------|-----------|-----------------------|----------|
| SCALE<br>5:1 | SIZE<br>A | DRAWING NO.<br>583895 | REV<br>A |
|--------------|-----------|-----------------------|----------|

DO NOT SCALE DRAWING

SHEET 6 OF 9

# HEAT SPREADER

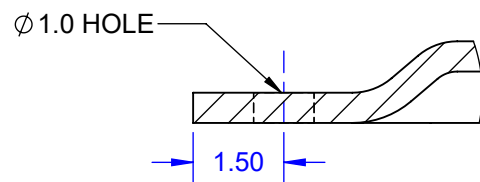


TOP

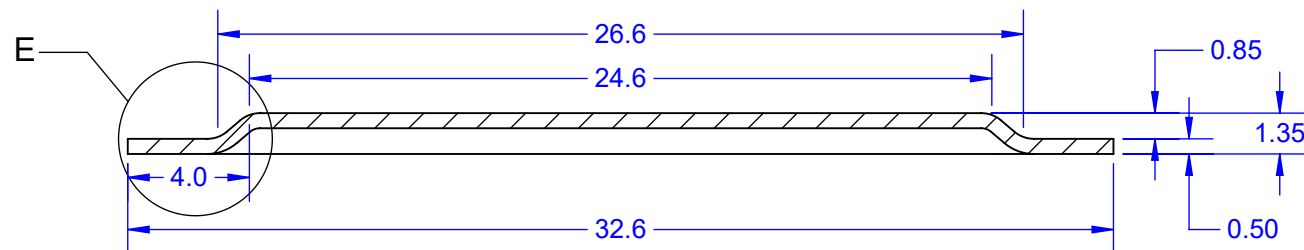
MODEL



CAVITY



DETAIL E  
SCALE 8 : 1



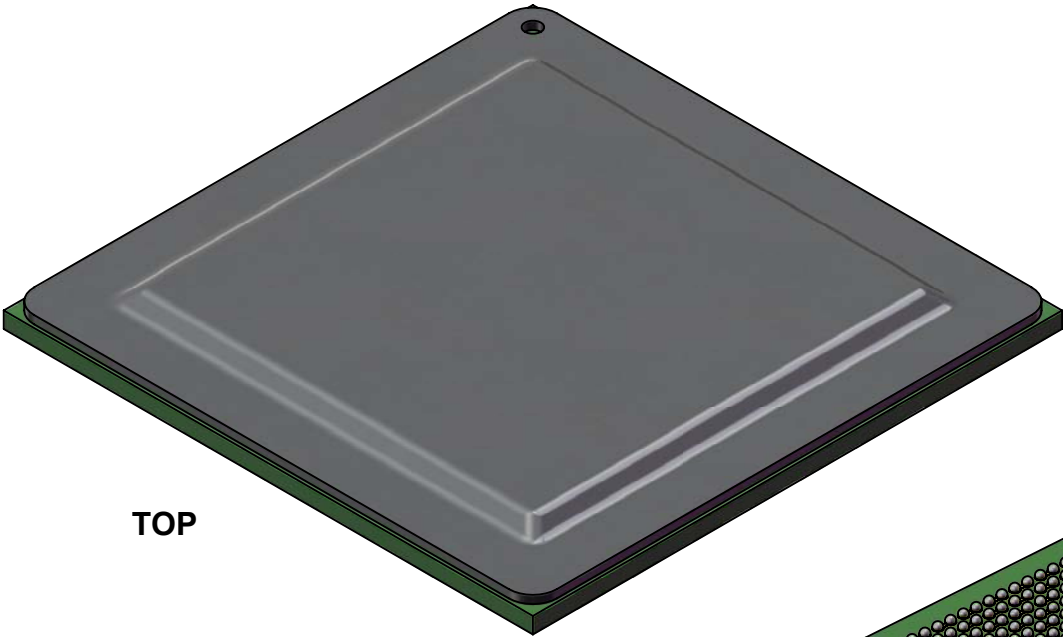
SECTION B-B  
SCALE 4 : 1

\* ADD 0.13MM SEALANT

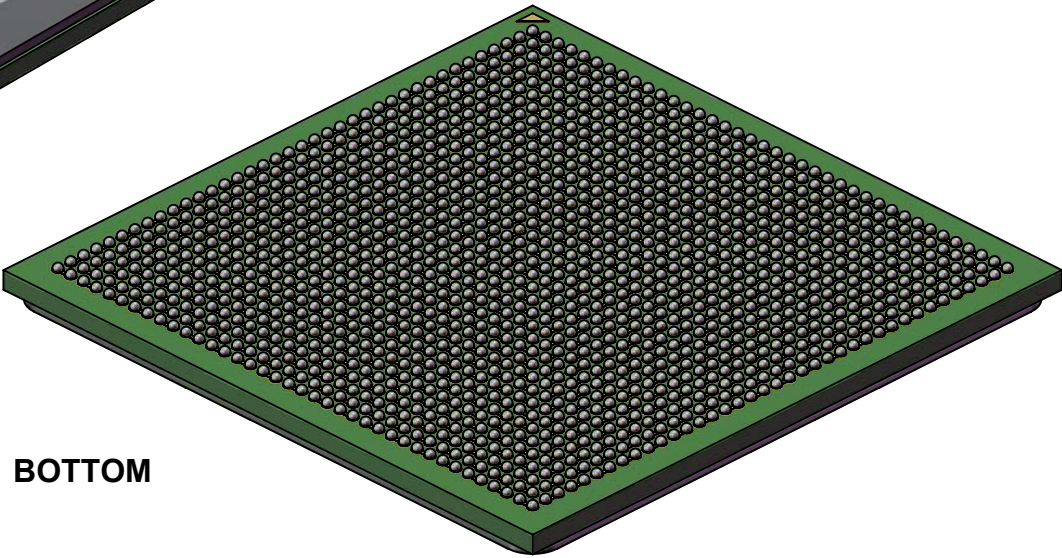
|                                               |           |                       |              |
|-----------------------------------------------|-----------|-----------------------|--------------|
| <b>TopLine®</b>                               |           |                       |              |
| TITLE SBGA1444T.8-DC389D<br>DAISY CHAIN DUMMY |           |                       |              |
| SCALE<br>2.5:1                                | SIZE<br>A | DRAWING NO.<br>583895 | REV<br>A     |
| DO NOT SCALE DRAWING                          |           |                       | SHEET 7 OF 9 |

MODEL

TOP



BOTTOM

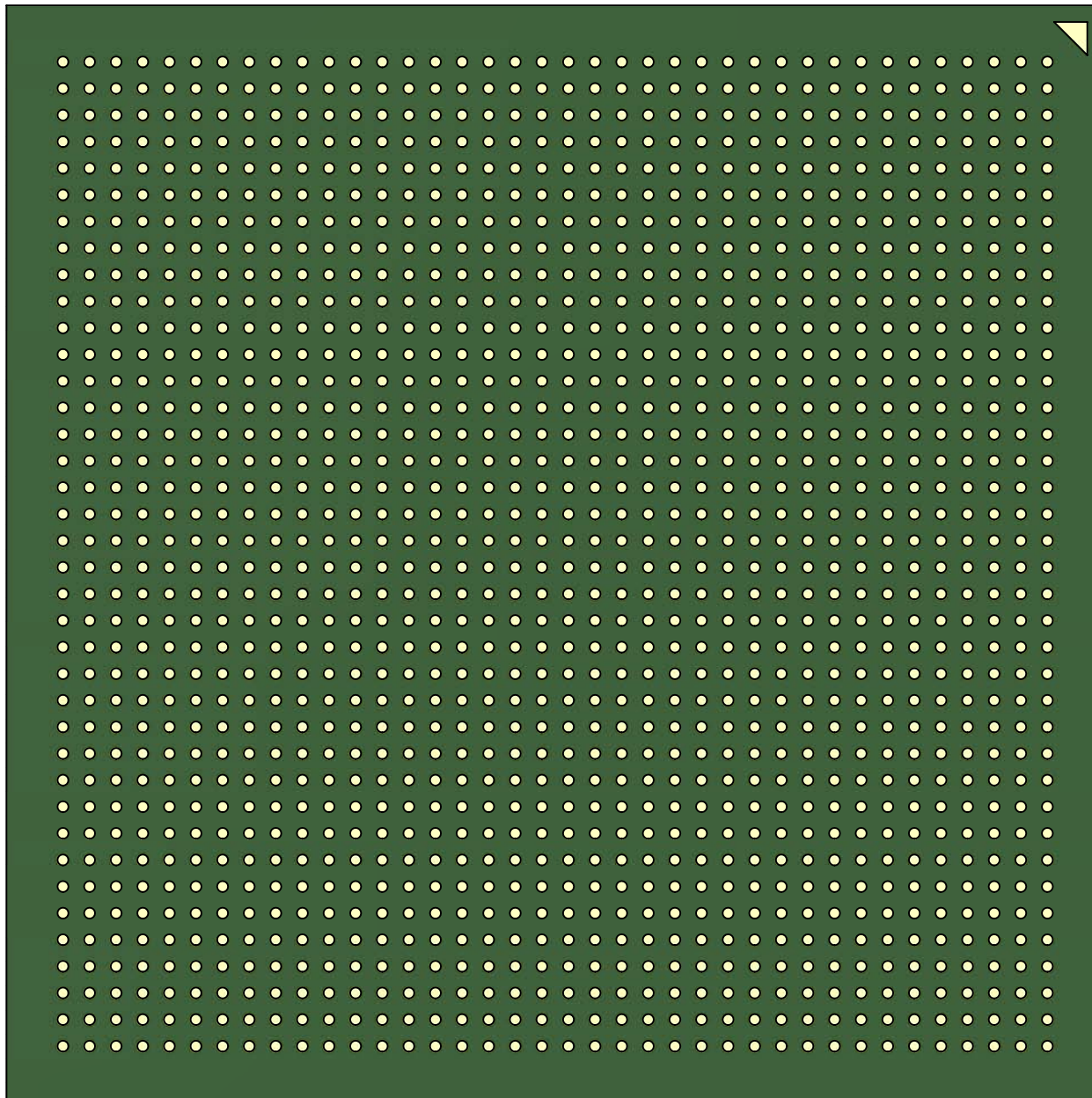


TITLE SBGA1444T.8-DC389D  
DAISY CHAIN DUMMY

|              |           |                       |          |
|--------------|-----------|-----------------------|----------|
| SCALE<br>3:1 | SIZE<br>A | DRAWING NO.<br>583895 | REV<br>A |
|--------------|-----------|-----------------------|----------|

# **BOTTOM SOLDER MASK (RIGHT READING)**

37 35 33 31 29 27 25 23 21 19 17 15 13 11 9 7 5 3 1  
38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2



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|                                                                                       |           |                       |              |
|---------------------------------------------------------------------------------------|-----------|-----------------------|--------------|
|  |           |                       |              |
| TITLE SBGA1444T.8-DC389D<br>DAISY CHAIN DUMMY                                         |           |                       |              |
| SCALE<br>5:1                                                                          | SIZE<br>A | DRAWING NO.<br>583895 | REV<br>A     |
| DO NOT SCALE DRAWING                                                                  |           |                       | SHEET 9 OF 9 |