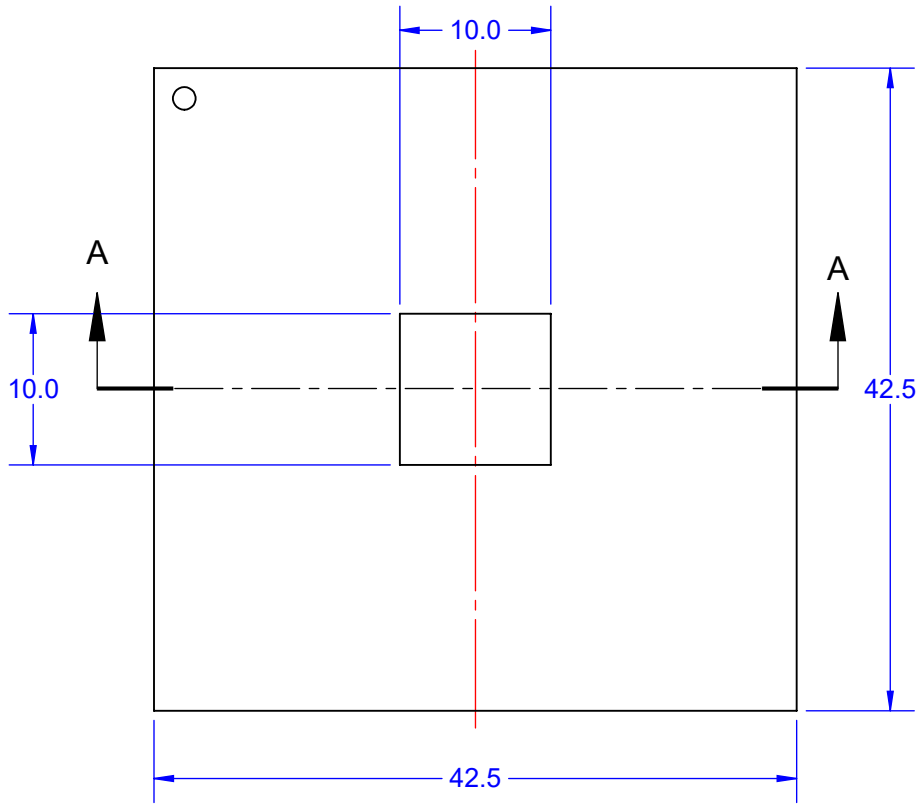
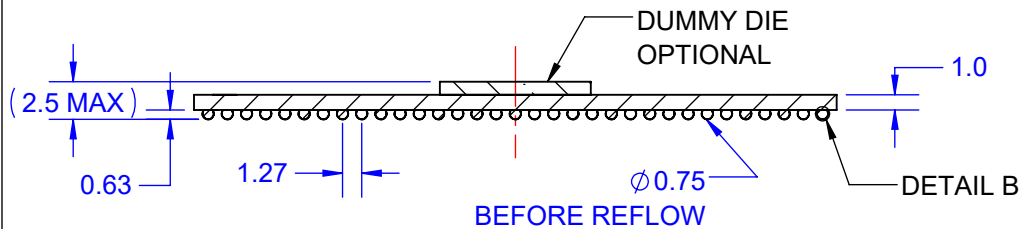
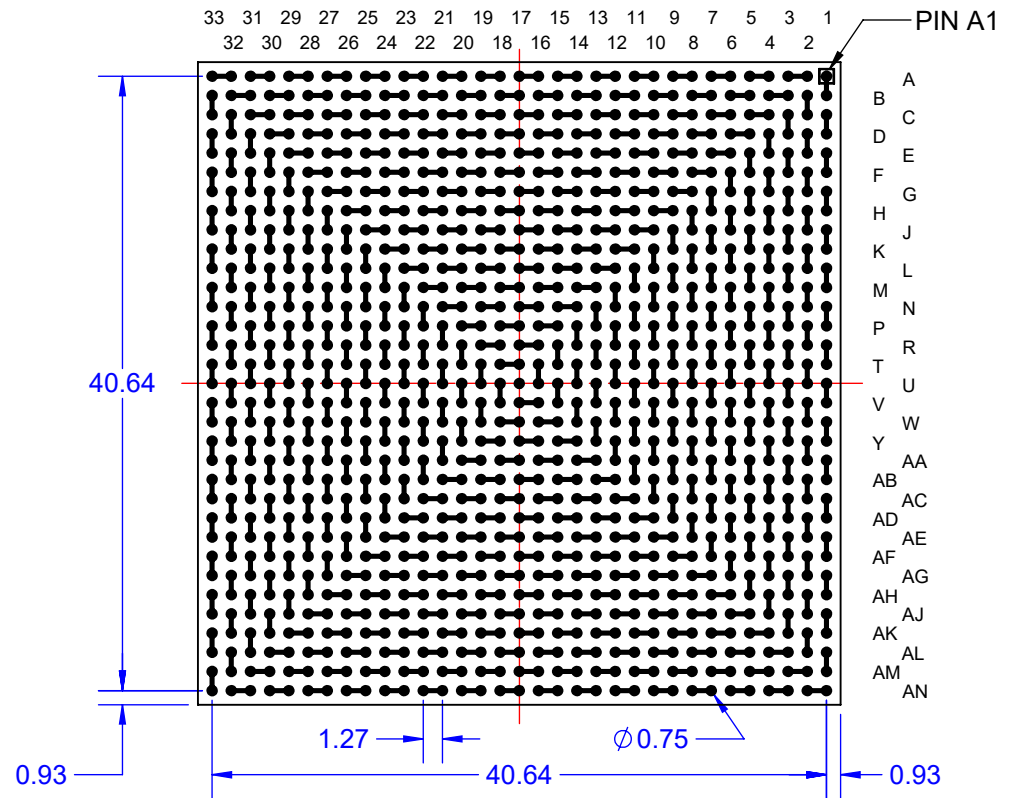


# CBGA WITH DIE

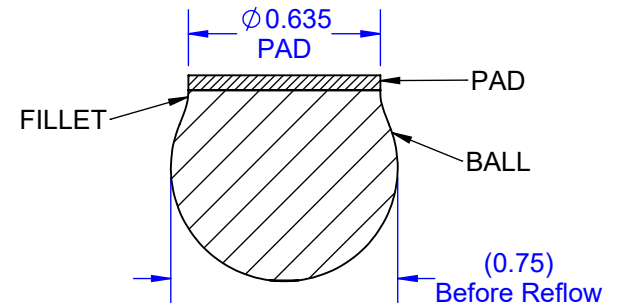
## TOP VIEW



## BALL VIEW



SECTION A-A  
SCALE 2 : 1



DETAIL B

Notes: (Unless Otherwise Specified).

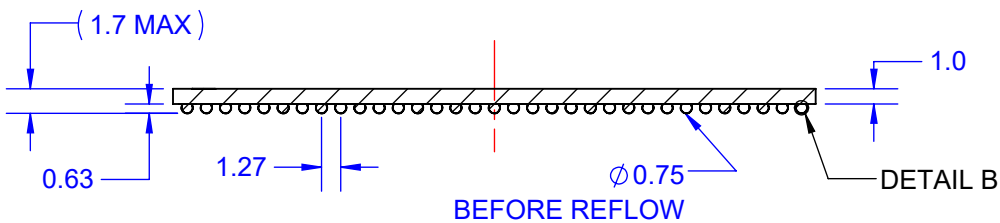
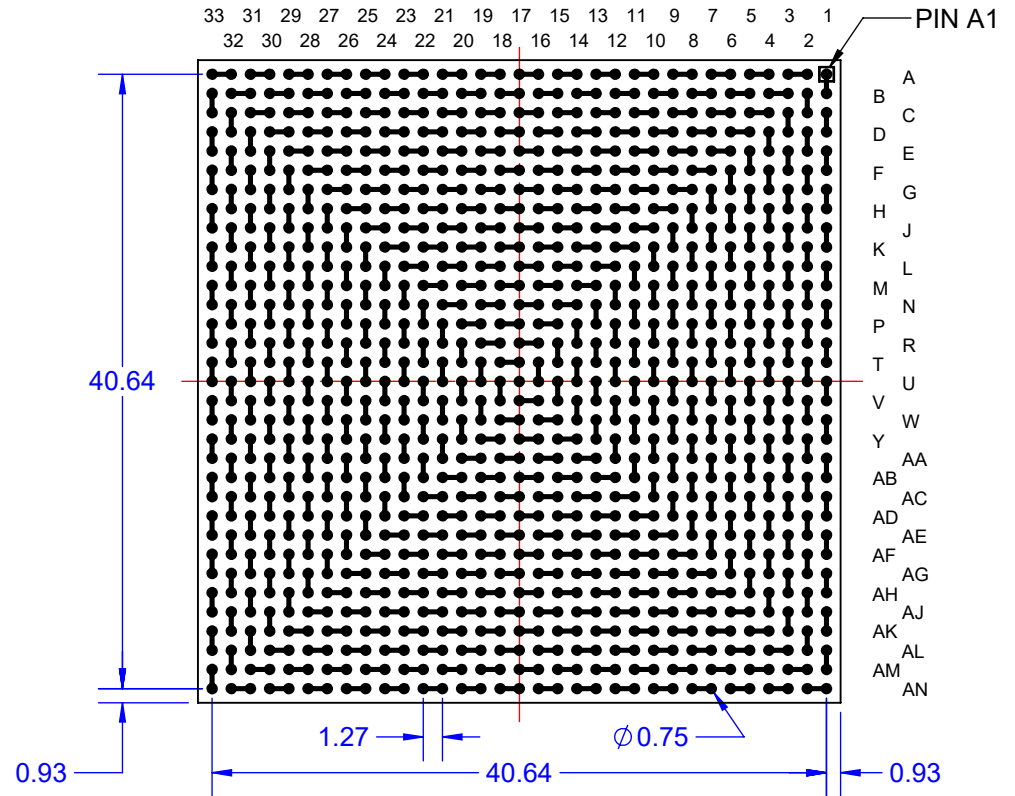
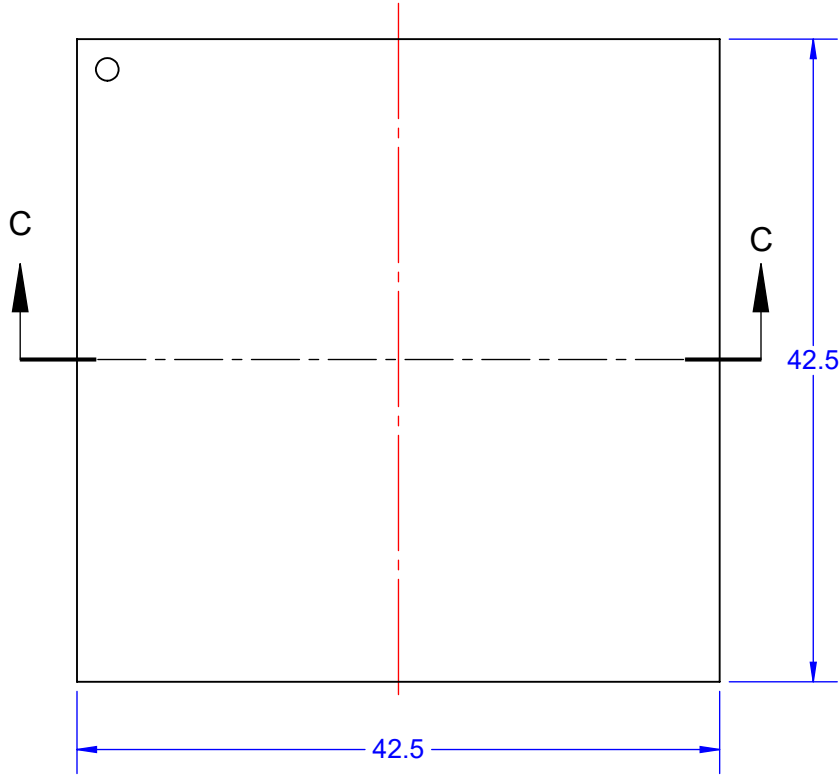
- 1) DIMENSIONS MM.
- 2) SOLDER BALL ALLOY: SEE PART NUMBER CONFIGURATION.
- 3) BALL DIAMETER (BEFORE REFLOW): 0.76mm (30 MIL).
- 4) SOLDER MASK OPENING: 0.635mm (25 MIL).
- 5) SUBSTRATE: ALUMINA CERAMIC.

APPROVALS	DATE	<b>TopLine</b> CERAMIC BALL GRID ARRAY			
DRAWN T. Au	08/21/2022				
ENG M. Hart	08/21/2022	TITLE CBGA1089T1.27-DC339			
MFG		CERAMIC BALL GRID ARRAY			
QA		SCALE 2:1	SIZE A	DRAWING NO. 523397	REV A
CUST					
REVISED		DO NOT SCALE DRAWING			SHEET 1 OF 7

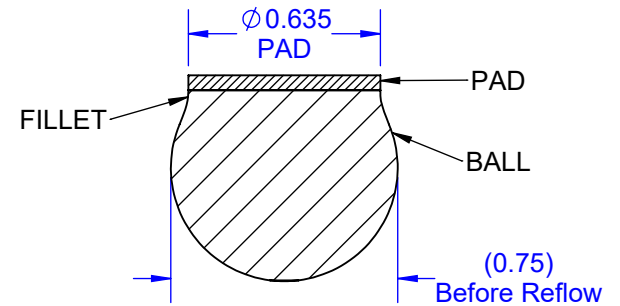
TOP VIEW

CBGA WITHOUT DIE

BALL VIEW



SECTION C-C  
SCALE 2 : 1



DETAIL B

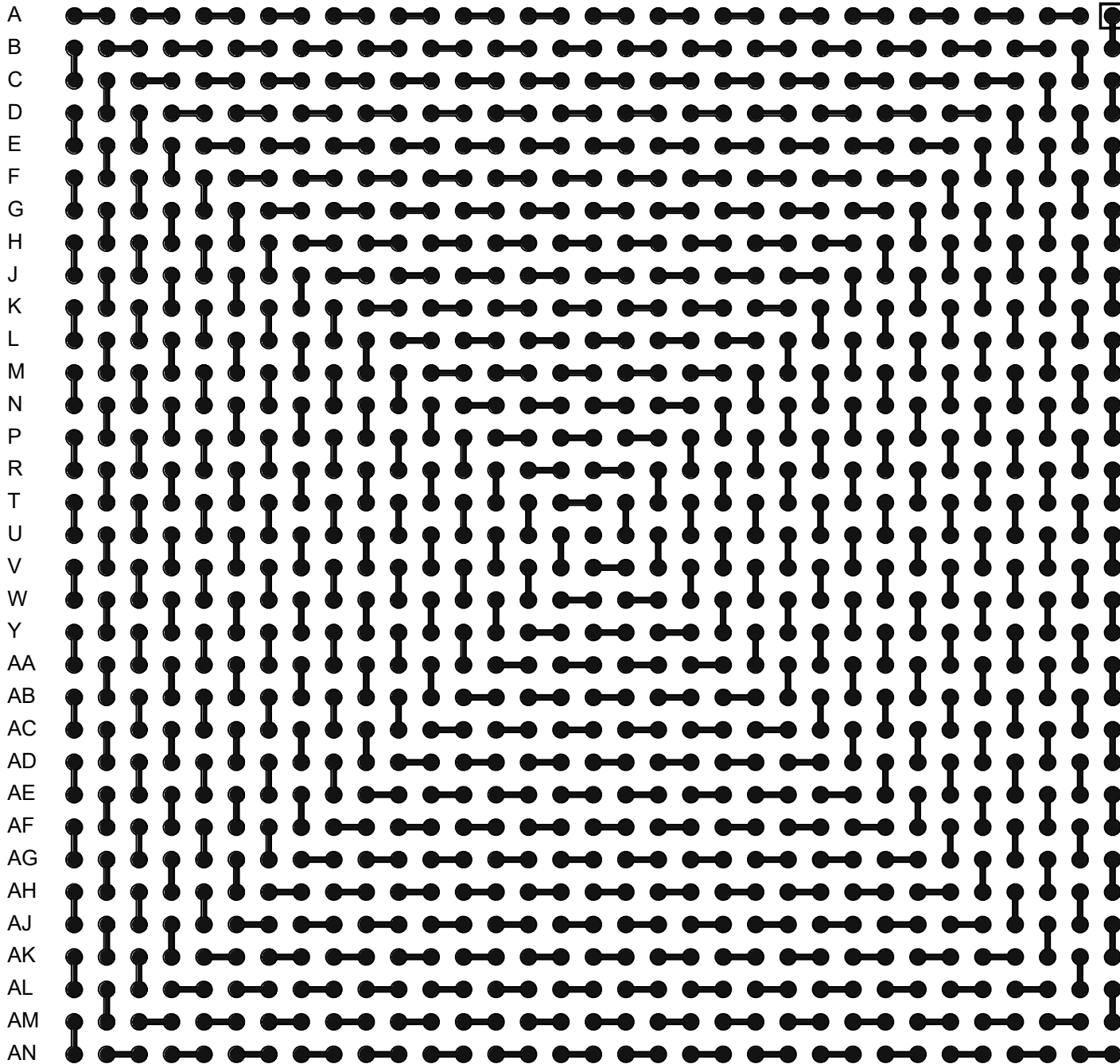
Notes: (Unless Otherwise Specified).

- 1) DIMENSIONS MM.
- 2) SOLDER BALL ALLOY: SEE PART NUMBER CONFIGURATION.
- 3) BALL DIAMETER (BEFORE REFLOW): 0.76mm (30 MIL).
- 4) SOLDER MASK OPENING: 0.635mm (25 MIL).
- 5) SUBSTRATE: ALUMINA CERAMIC.

APPROVALS	DATE	<b>TopLine</b> <sup>®</sup>			
DRAWN T. Au	08/21/2022				
ENG M. Hart	08/21/2022	TITLE CBGA1089T1.27-DC339 CERAMIC BALL GRID ARRAY			
MFG		SCALE	SIZE	DRAWING NO.	REV
QA		2:1	A	523397	A
CUST		DO NOT SCALE DRAWING			SHEET 2 OF 7
REVISED					

# BALL VIEW

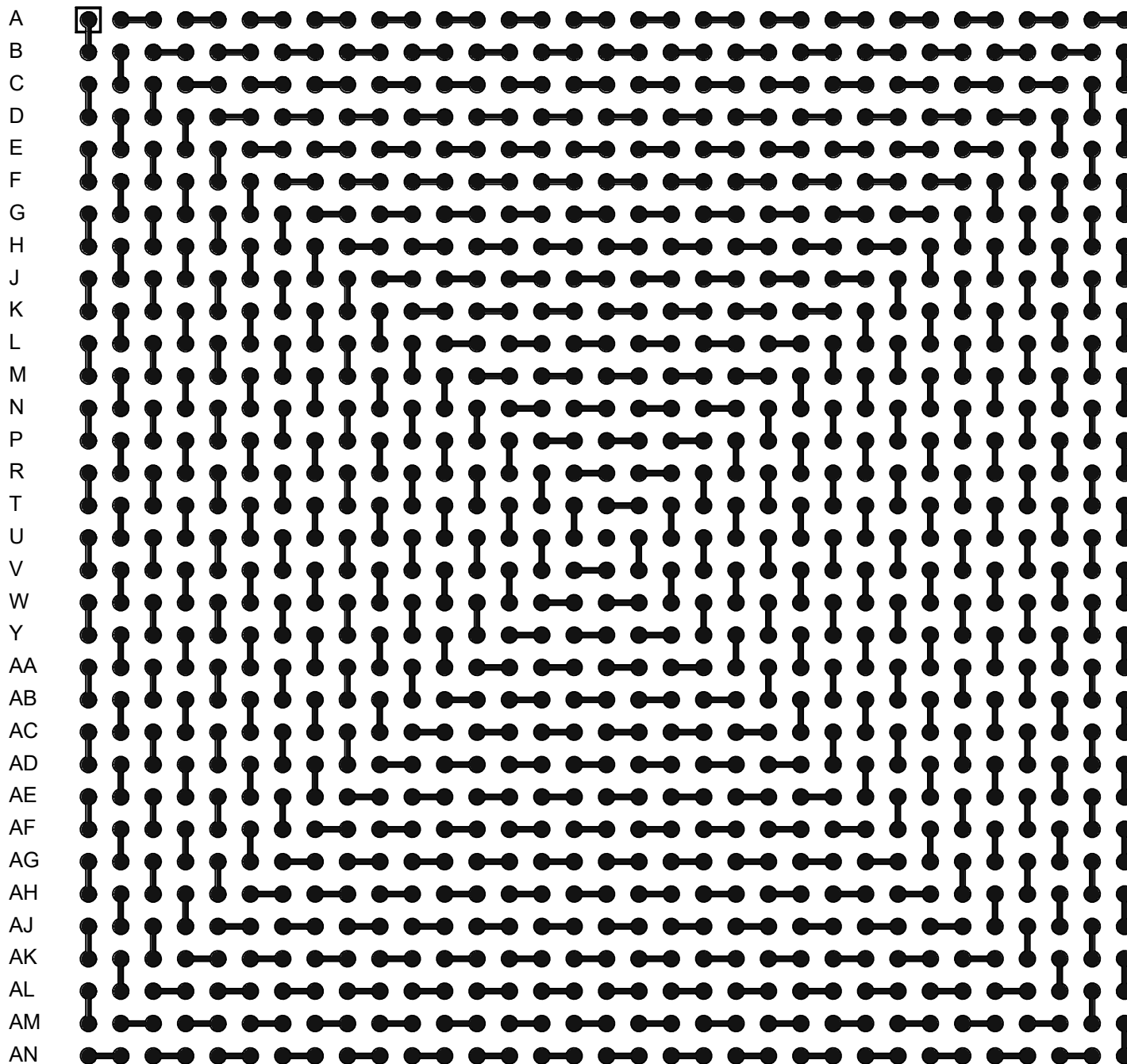
33 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1



<b>TopLine<sup>®</sup></b>			
TITLE      CBGA1089T1.27-DC339 CERAMIC BALL GRID ARRAY			
SCALE 4.25:1	SIZE A	DRAWING NO. 523397	REV A
DO NOT SCALE DRAWING		SHEET 3 OF 7	

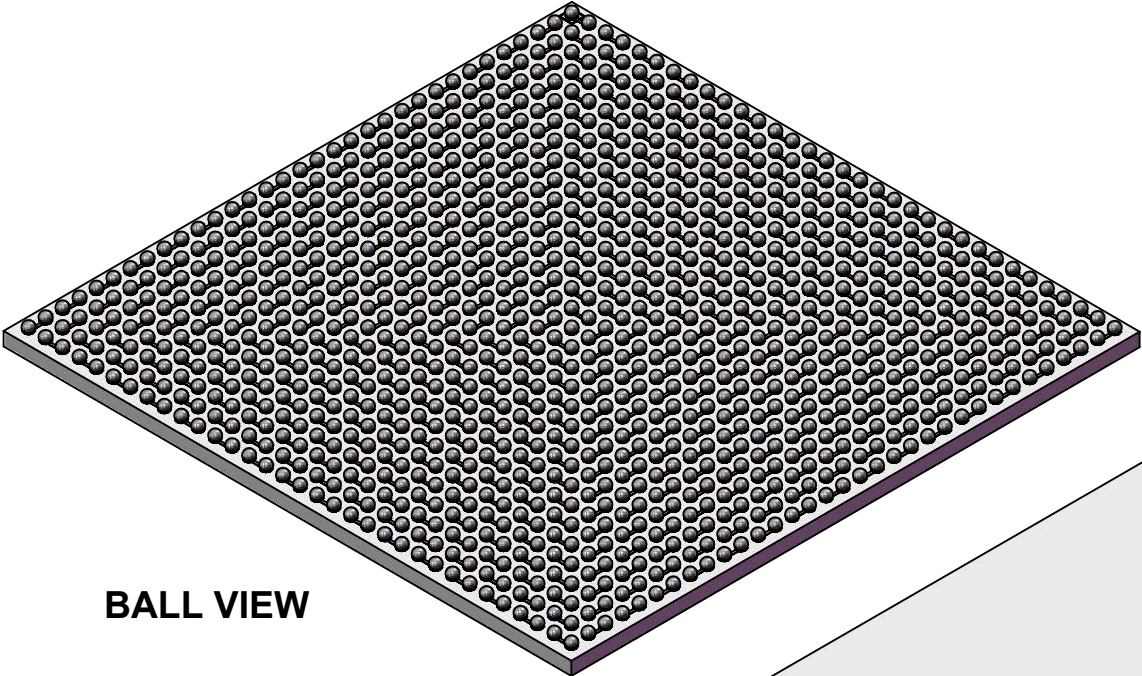
# BOTTOM SIDE (VIEWED FROM TOP)

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

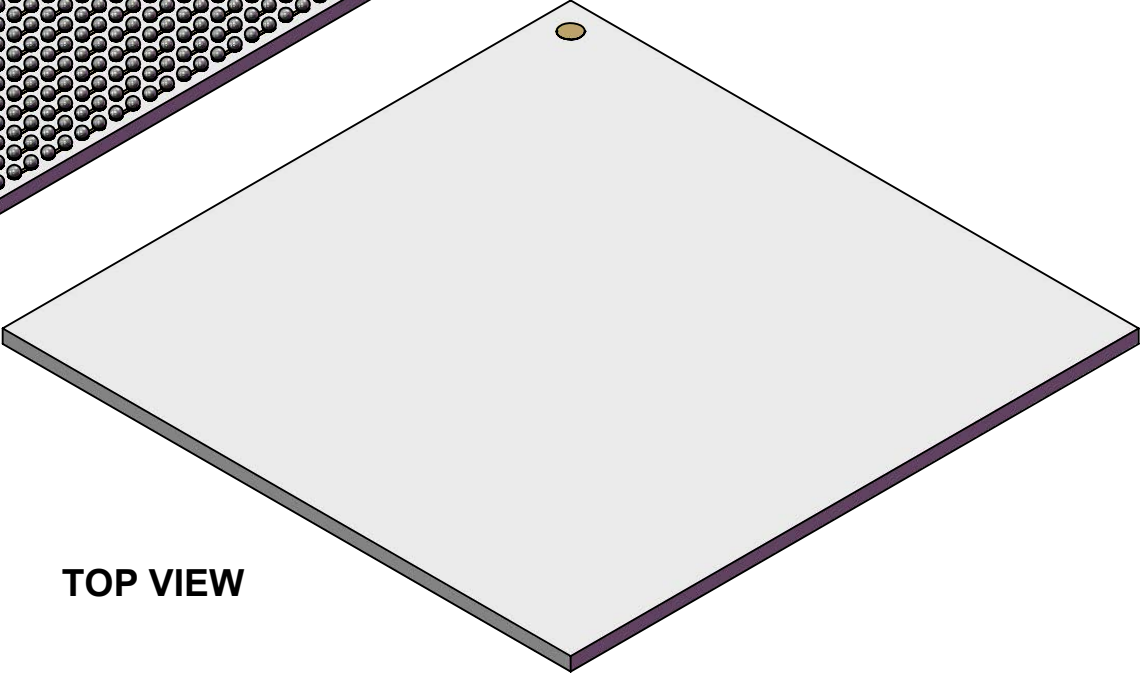


<b>TopLine<sup>®</sup></b>			
TITLE    CBGA1089T1.27-DC339 CERAMIC BALL GRID ARRAY			
SCALE 4.25:1	SIZE A	DRAWING NO. 523397	REV A
DO NOT SCALE DRAWING			SHEET 4 OF 7

**MODEL  
CBGA WITH BALL  
WITHOUT DIE**



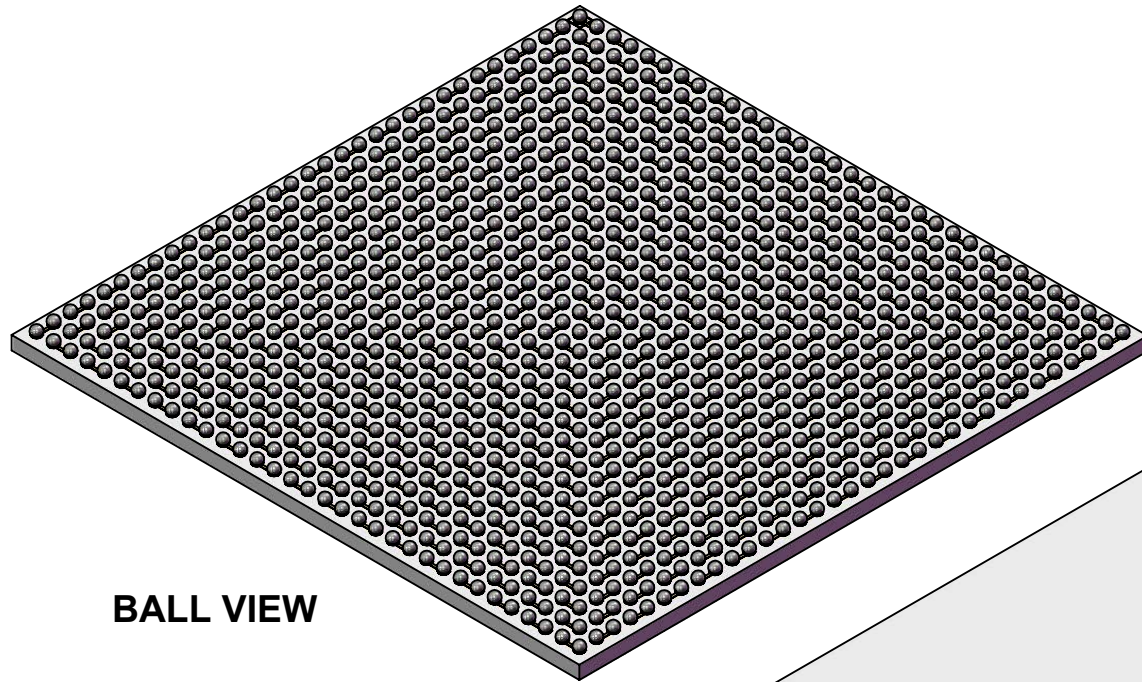
**BALL VIEW**



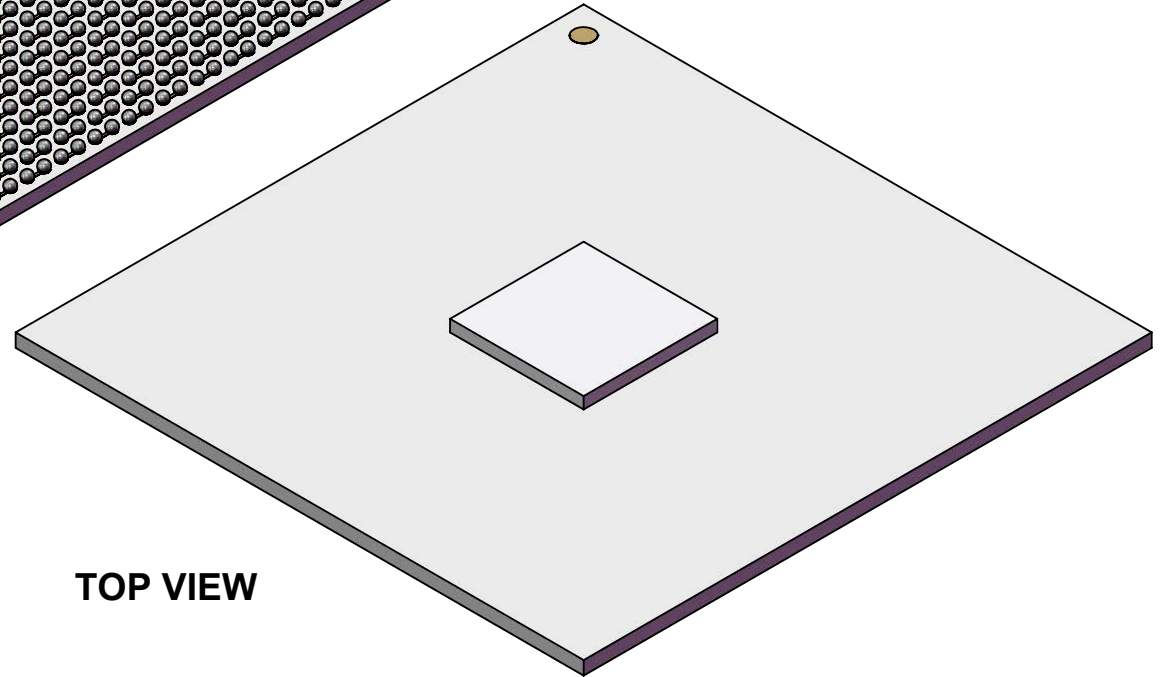
**TOP VIEW**

<b>TopLine<sup>®</sup></b>			
TITLE      CBGA1089T1.27-DC339 CERAMIC BALL GRID ARRAY			
SCALE	SIZE	DRAWING NO.	REV
2.5:1	A	523397	A
DO NOT SCALE DRAWING			SHEET 5 OF 7

**MODEL  
CBGA WITH BALL  
WITH DIE**



**BALL VIEW**



**TOP VIEW**

**TopLine®**

TITLE      CBGA1089T1.27-DC339  
                 CERAMIC BALL GRID ARRAY

SCALE 2.5:1	SIZE A	DRAWING NO. 523397	REV A
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DO NOT SCALE DRAWING

SHEET 6 OF 7

# PART NUMBER SYSTEM

**CBGA**

**1089**

**T**

**1.27**

**-**

**DC339**

**D**

**SERIES**

CBGA = CERAMIC  
BALL GRID ARRAY

**BALLS**

NBR SOLDER  
BALLS

**TRAY**

T = JEDEC

**PITCH**

1.27mm = 0.050"

**ALLOY**

L = Sn62/Pb36/Ag2.0\*  
X = Sn63/Pb37\*  
C = SAC305\*  
Blank = Sn10/Pb90

**DIE**

D = DUMMY DIE  
BLANK = WITHOUT DIE

**DAISY CHAIN**

DC339 = SEE PATTERN

PART NUMBER	BALL ALLOY	CODE	LEAD FREE	DIE
CBGA1089T1.27-DC339	Sn10/Pb90	Sn10	NO	NO
CBGA1089T1.27-DC339D	Sn10/Pb90	Sn10	NO	YES
CBGA1089T1.27L-DC339	Sn62/Pb36/Ag2.0	Sn62	NO	NO
CBGA1089T1.27L-DC339D	Sn62/Pb36/Ag2.0	Sn62	NO	YES
CBGA1089T1.27X-DC339	Sn63/Pb37	Sn63	NO	NO
CBGA1089T1.27X-DC339D	Sn63/Pb37	Sn63	NO	YES
CBGA1089T1.27C-DC339	Sn96.5/Ag3.0/Cu0.5	SAC305	YES	NO
CBGA1089T1.27C-DC339D	Sn96.5/Ag3.0/Cu0.5	SAC305	YES	YES

\* THESE BALL ALLOYS NOT RECOMMENDED FOR  
MOUNTING ON FR4 BOARDS DUE TO CTE MISMATCH

<b>TopLine<sup>®</sup></b>			
TITLE      CBGA1089T1.27-DC339 CERAMIC BALL GRID ARRAY			
SCALE NONE	SIZE A	DRAWING NO. 523397	REV A
DO NOT SCALE DRAWING			SHEET 7 OF 7