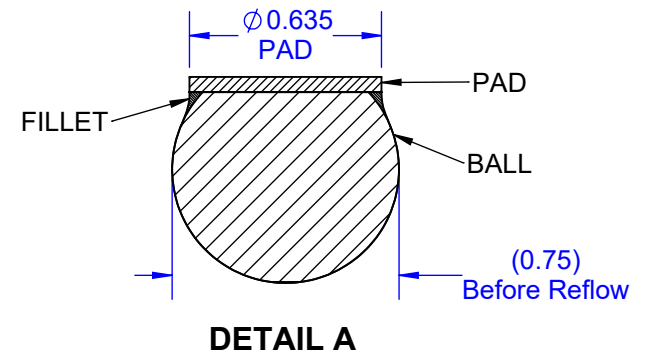
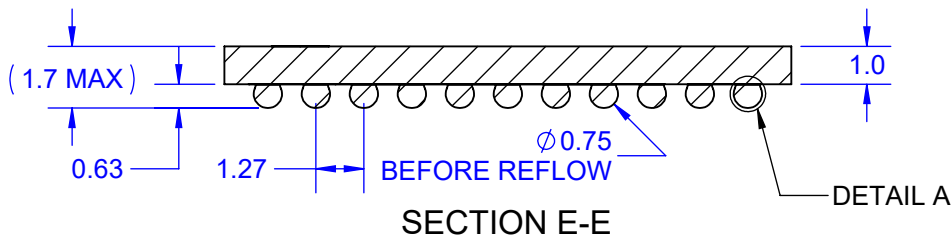
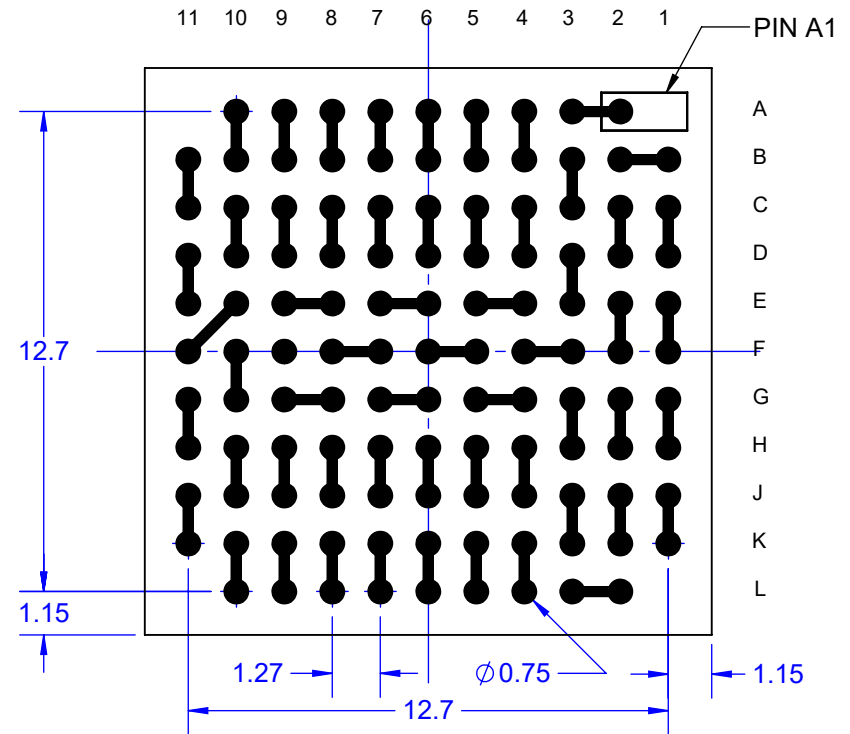
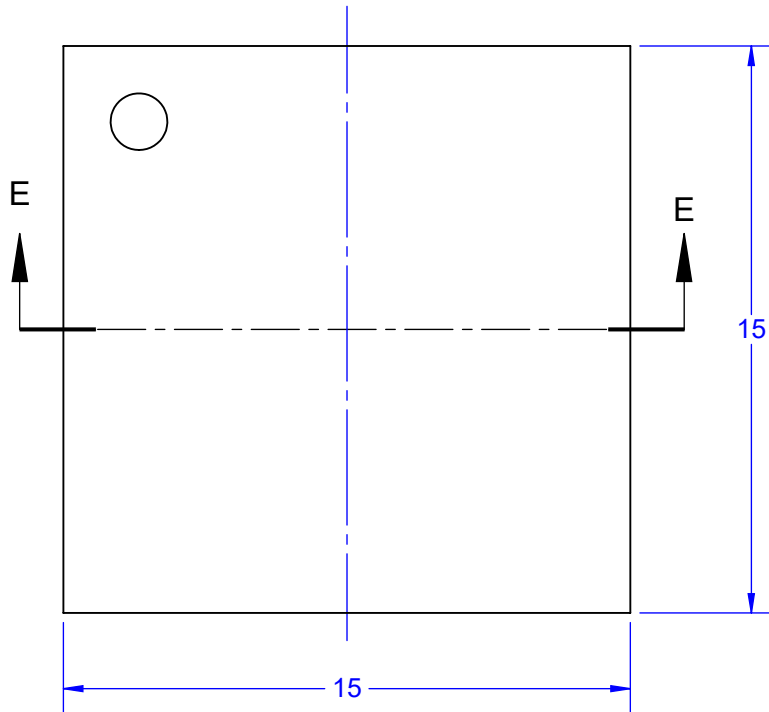


TOP VIEW

CBGA WITHOUT DIE

BALL VIEW

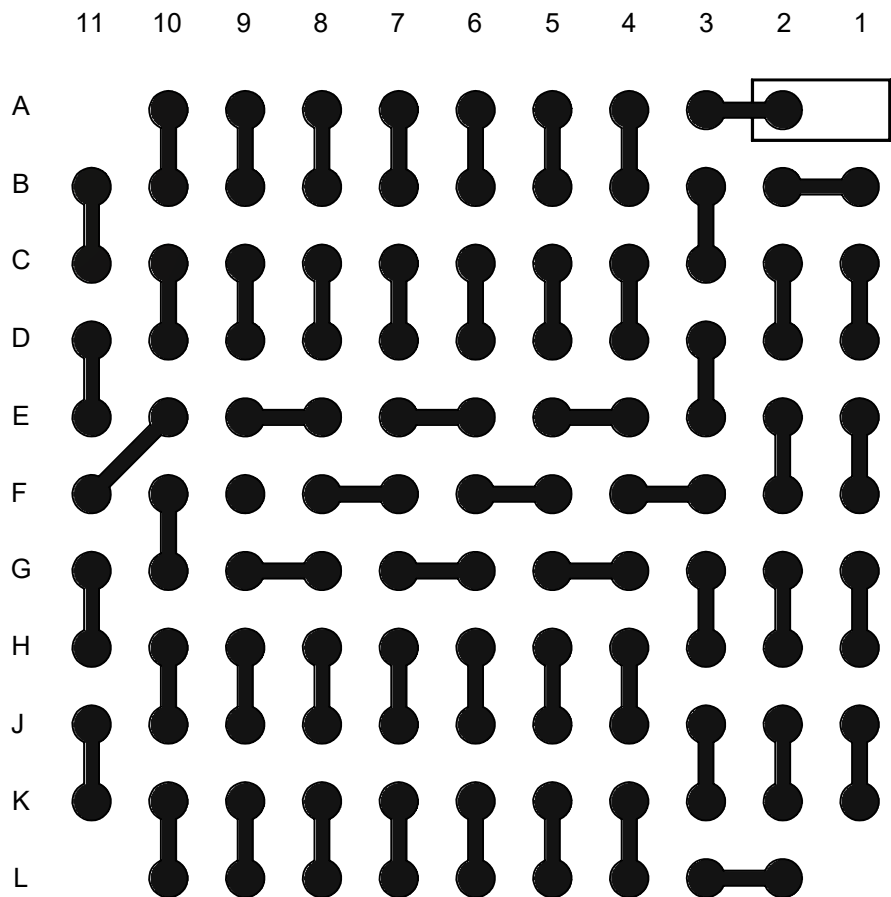


Notes: (Unless Otherwise Specified).

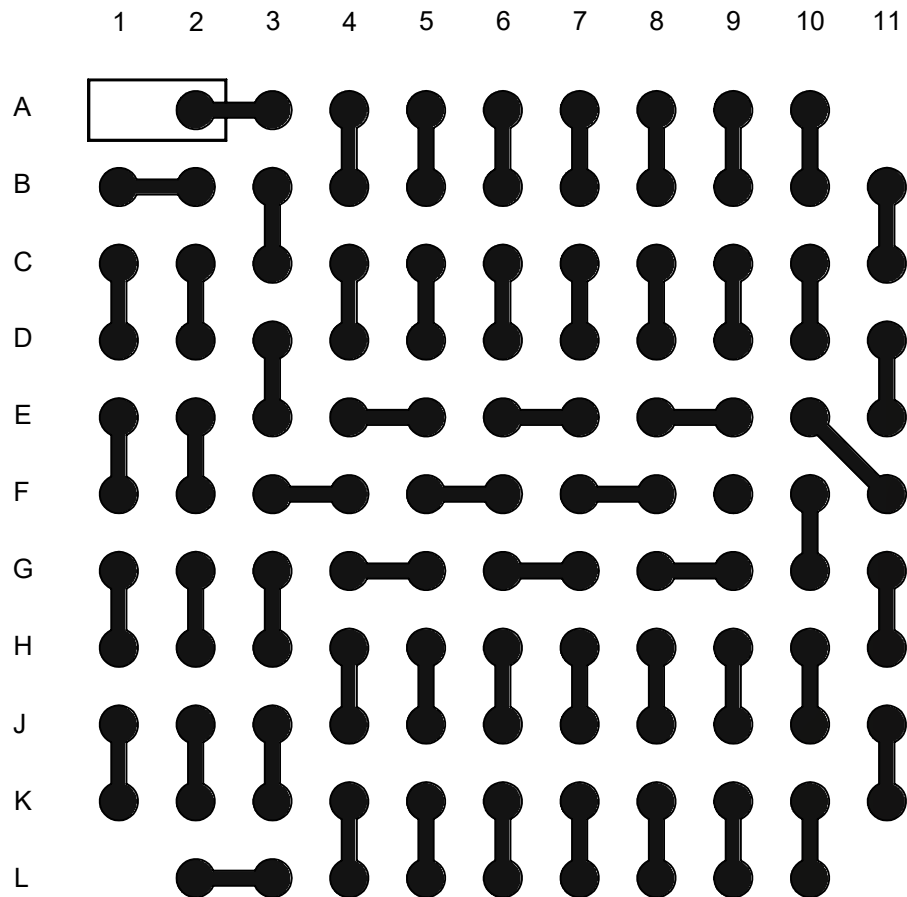
- 1) ALL DIMENSIONS ARE MM.
- 2) SOLDER BALL ALLOY: SEE PART NUMBER CONFIGURATION.
- 3) BALL DIAMETER (BEFORE REFLOW): 0.76mm (30 MIL).
- 4) SOLDER MASK OPENING: 0.635mm (25 MIL).
- 5) SUBSTRATE: ALUMINA CERAMIC.
- 6) CORNER BALLS 4X DEPOPULATED (ACTUAL 117 BALLS)

APPROVALS	DATE	<b>TopLine</b> <sup>®</sup>			
DRAWN T. Au	7/28/2022				
ENG M. Hart	7/28/2022	TITLE CBGA121T1.27-DC5 CERAMIC BALL GRID ARRAY			
MFG		SCALE	SIZE	DRAWING NO.	REV
QA		6:1	A	520057	A
CUST		DO NOT SCALE DRAWING			SHEET 1 OF 4
REVISED					

### BALL VIEW



### BOTTOM SIDE (TOP X-RAY VIEW)



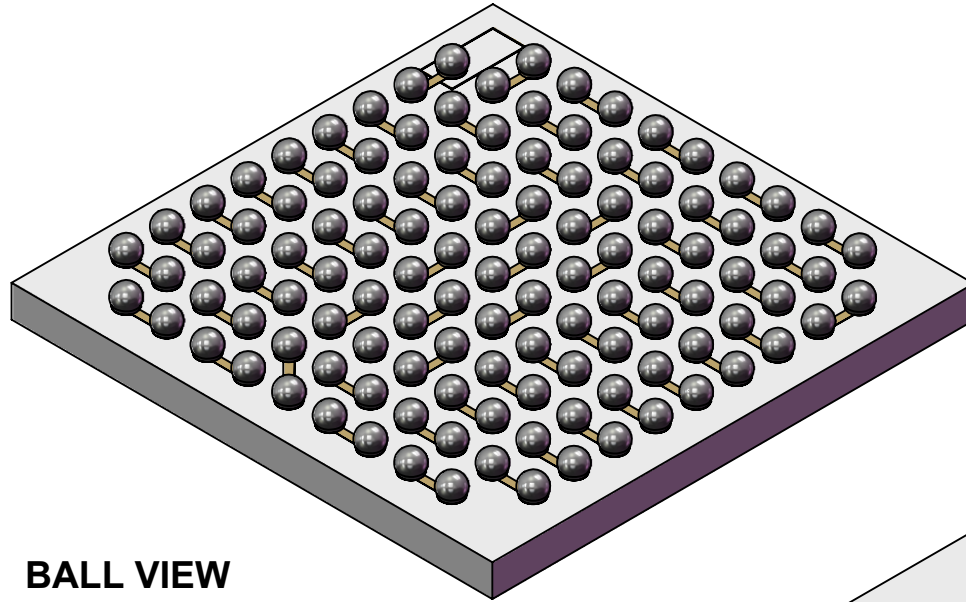
**TopLine<sup>®</sup>**

TITLE CBGA121T1.27-DC5  
CERAMIC BALL GRID ARRAY

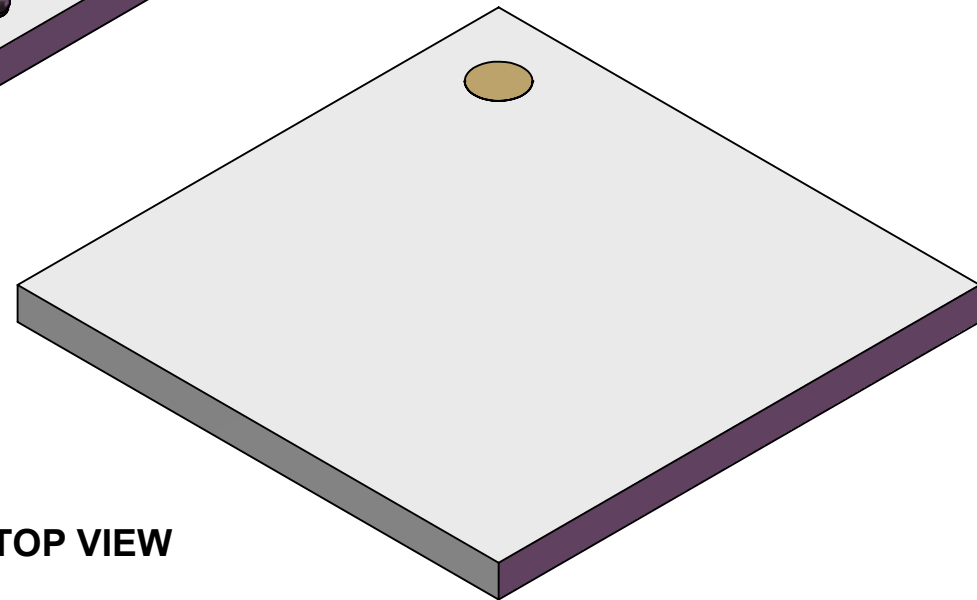
SCALE 8:1	SIZE A	DRAWING NO. 520057	REV A
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DO NOT SCALE DRAWING SHEET 2 OF 4

**MODEL  
CBGA WITH BALL  
WITHOUT DIE**



**BALL VIEW**



**TOP VIEW**

**TopLine<sup>®</sup>**

TITLE CBGA121T1.27-DC5  
CERAMIC BALL GRID ARRAY

SCALE 6:1	SIZE A	DRAWING NO. 520057	REV A
--------------	-----------	-----------------------	----------

DO NOT SCALE DRAWING

SHEET 3 OF 4

# PART NUMBER SYSTEM

**CBGA**

**121**

**T**

**1.27**

**-**

**DC5**

**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

\* NOTE:  
4X CORNER BALLS DEPOPULATED.  
ACTUAL 117 BALLS

**DAISY CHAIN**

DC5 = SEE PATTERN

PART NUMBER	BALL ALLOY	CODE	LEAD FREE	DIE
CBGA121T1.27-DC5	Sn10/Pb90	Sn10	NO	NO
CBGA121T1.27-DC5D	Sn10/Pb90	Sn10	NO	YES
CBGA121T1.27L-DC5	Sn62/Pb36/Ag2.0	Sn62	NO	NO
CBGA121T1.27L-DC5D	Sn62/Pb36/Ag2.0	Sn62	NO	YES
CBGA121T1.27X-DC5	Sn63/Pb37	Sn63	NO	NO
CBGA121T1.27X-DC5D	Sn63/Pb37	Sn63	NO	YES
CBGA121T1.27C-DC5	Sn96.5/Ag3.0/Cu0.5	SAC305	YES	NO
CBGA121T1.27C-DC5D	Sn96.5/Ag3.0/Cu0.5	SAC305	YES	YES

<b>TopLine<sup>®</sup></b>			
TITLE      CBGA121T1.27-DC5 CERAMIC BALL GRID ARRAY			
SCALE NONE	SIZE A	DRAWING NO. 520057	REV A
DO NOT SCALE DRAWING			SHEET 4 OF 4