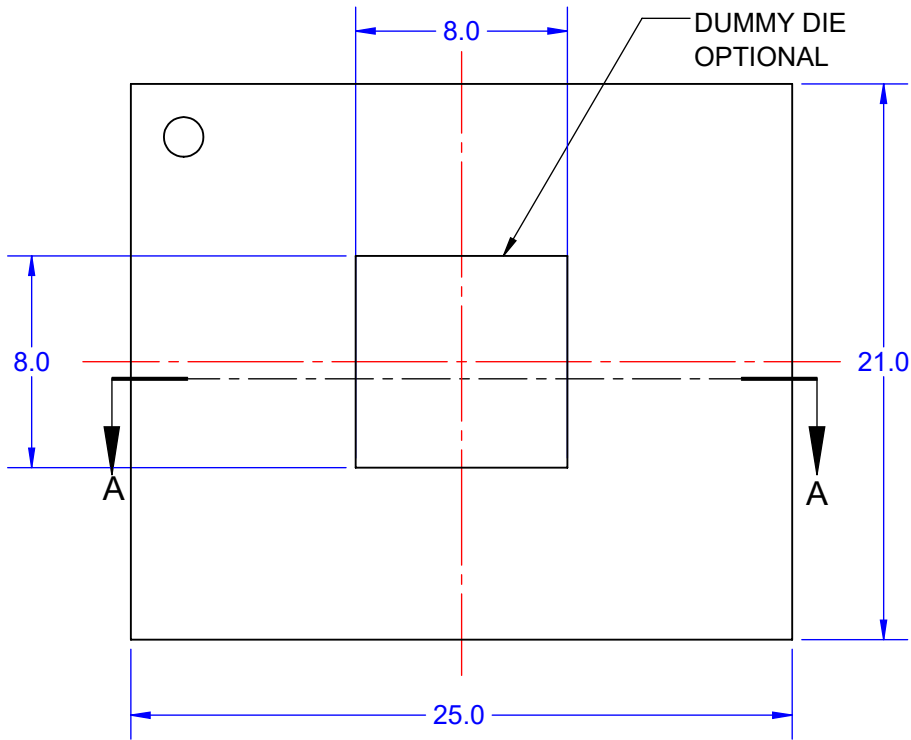
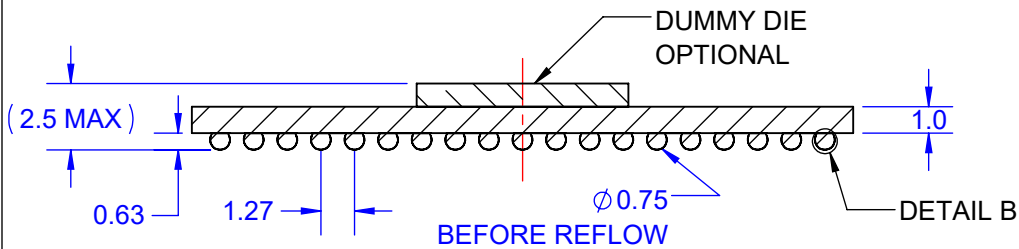
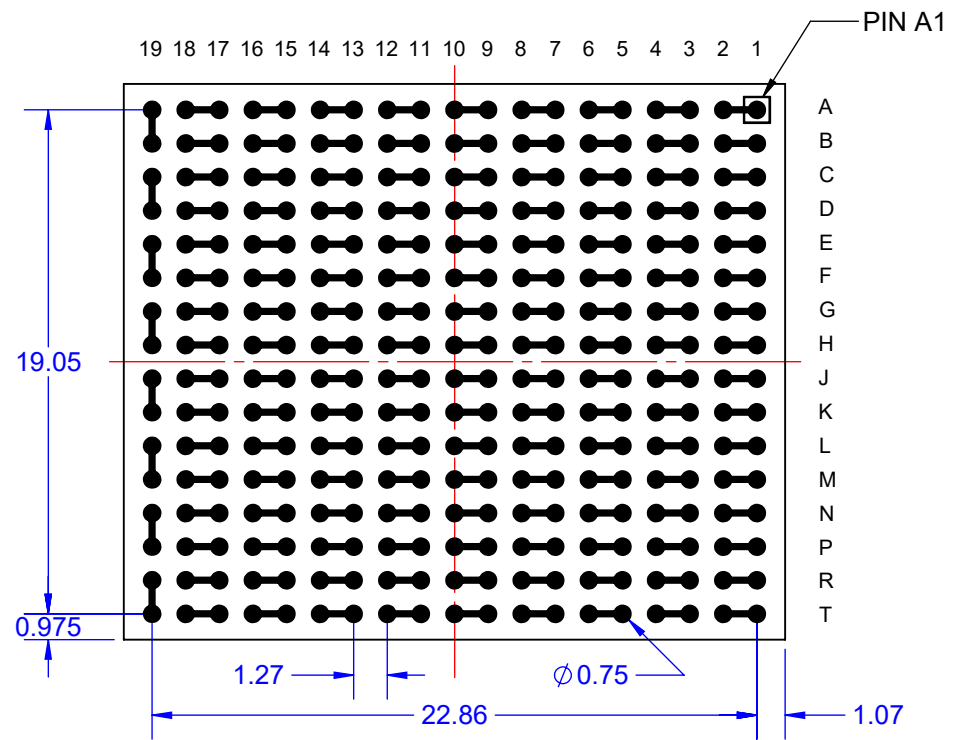


# CBGA WITH DIE

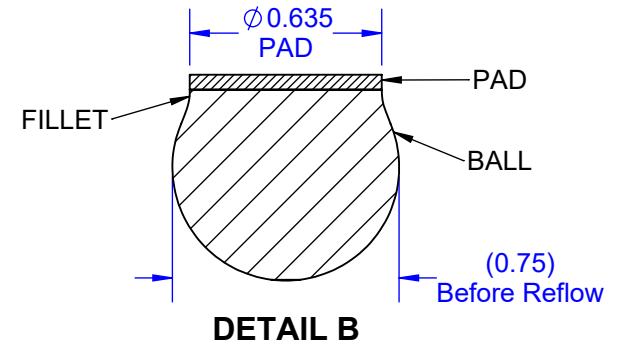
## TOP VIEW



## BALL VIEW



SECTION A-A  
SCALE 3.5 : 1



DETAIL B

Notes: (Unless Otherwise Specified).

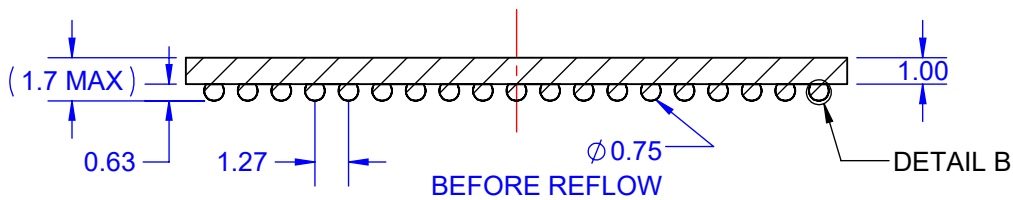
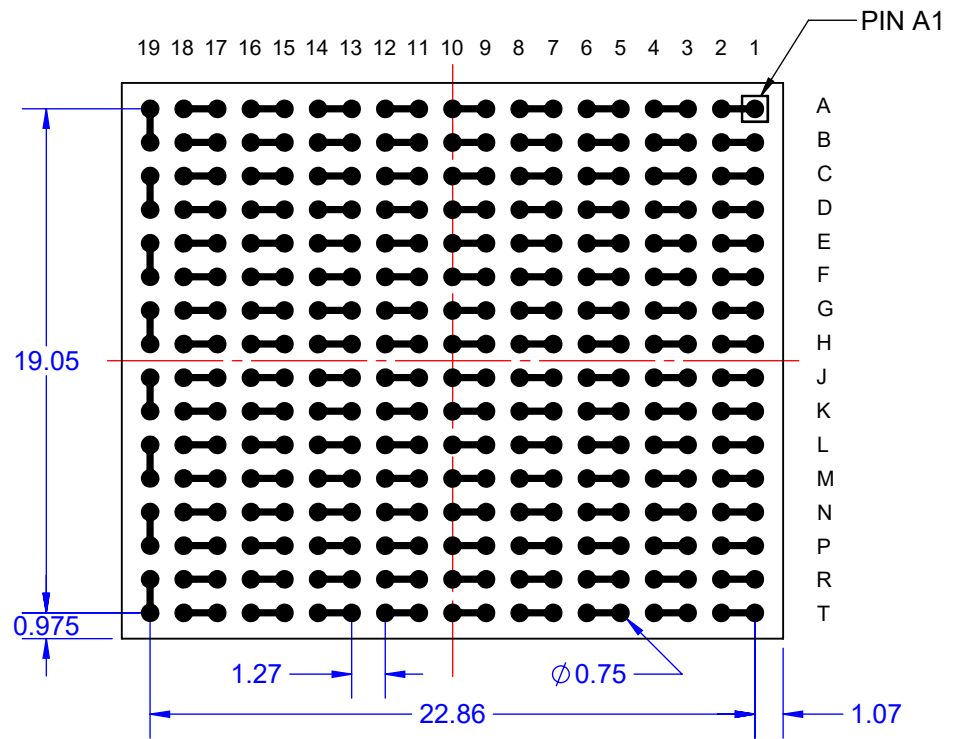
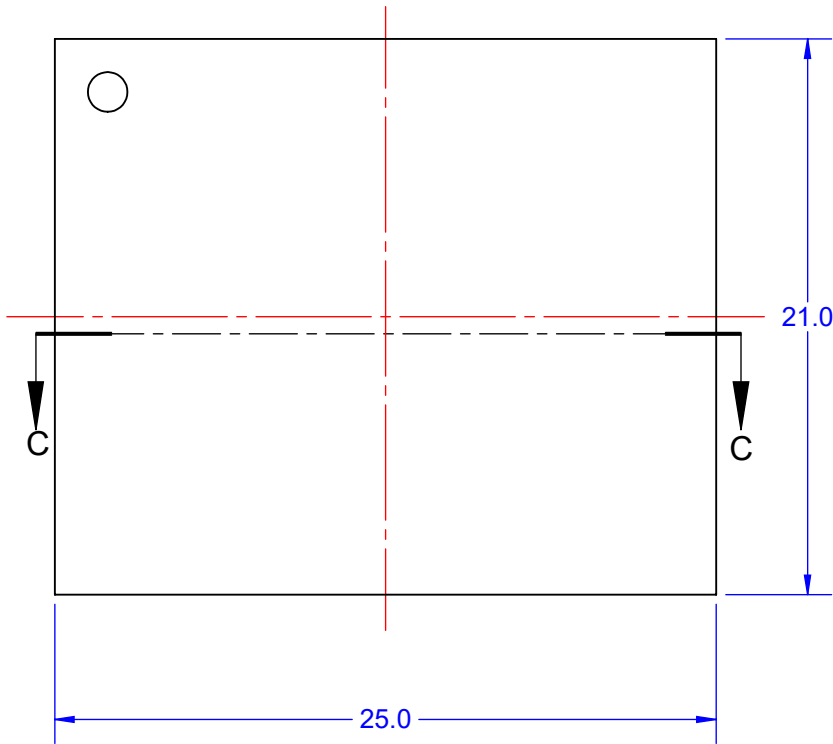
- 1) DIMENSIONS MM.
- 2) SOLDER BALL ALLOY: SEE PART NUMBER CONFIGURATION.
- 3) BALL DIAMETER (BEFORE REFLOW): 0.76mm (30 MIL).
- 4) SOLDER MASK OPENING: 0.635mm (25 MIL).
- 5) SUBSTRATE: ALUMINA CERAMIC.

APPROVALS	DATE	<b>TopLine</b> <sup>®</sup>			
DRAWN T. Au	08/20/2022				
ENG M. Hart	08/20/2022	TITLE CBGA304T1.27L-DC63 CERAMIC BALL GRID ARRAY			
MFG		SCALE	SIZE	DRAWING NO.	REV
QA		3:1	A	520637	A
CUST		DO NOT SCALE DRAWING			SHEET 1 OF 6
REVISED					

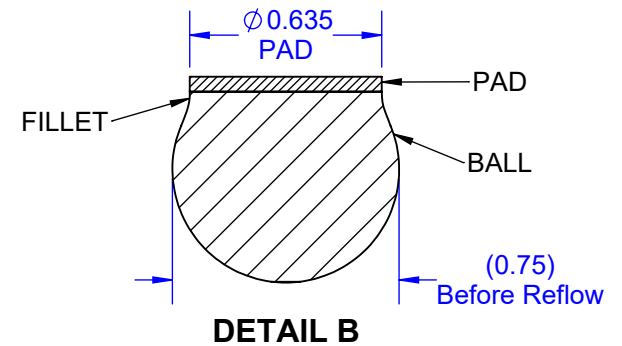
TOP VIEW

CBGA WITHOUT DIE

BALL VIEW



SECTION C-C  
SCALE 3.5 : 1

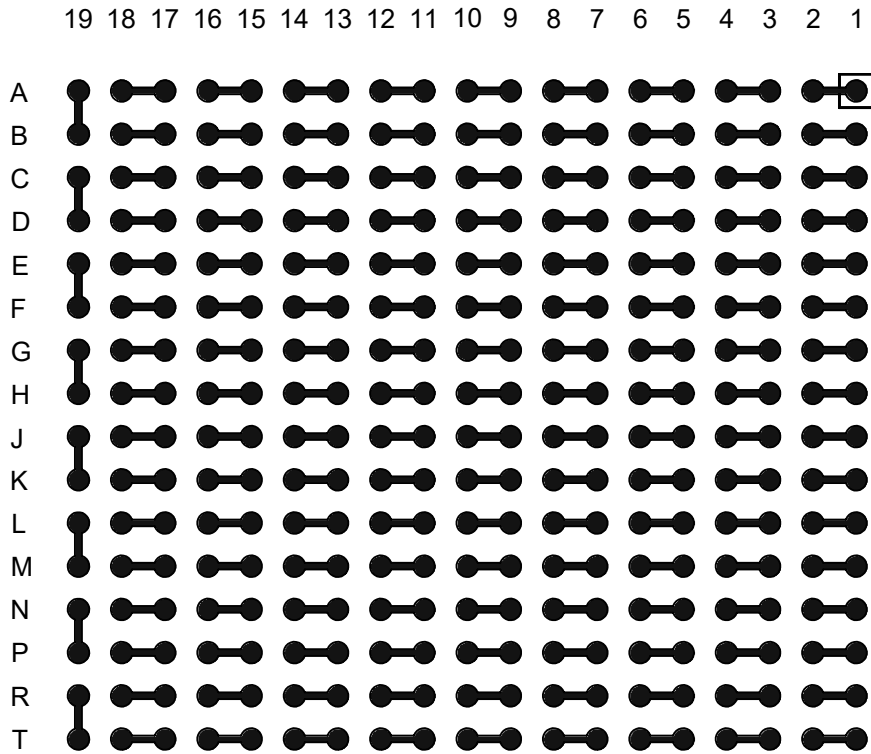


Notes: (Unless Otherwise Specified).

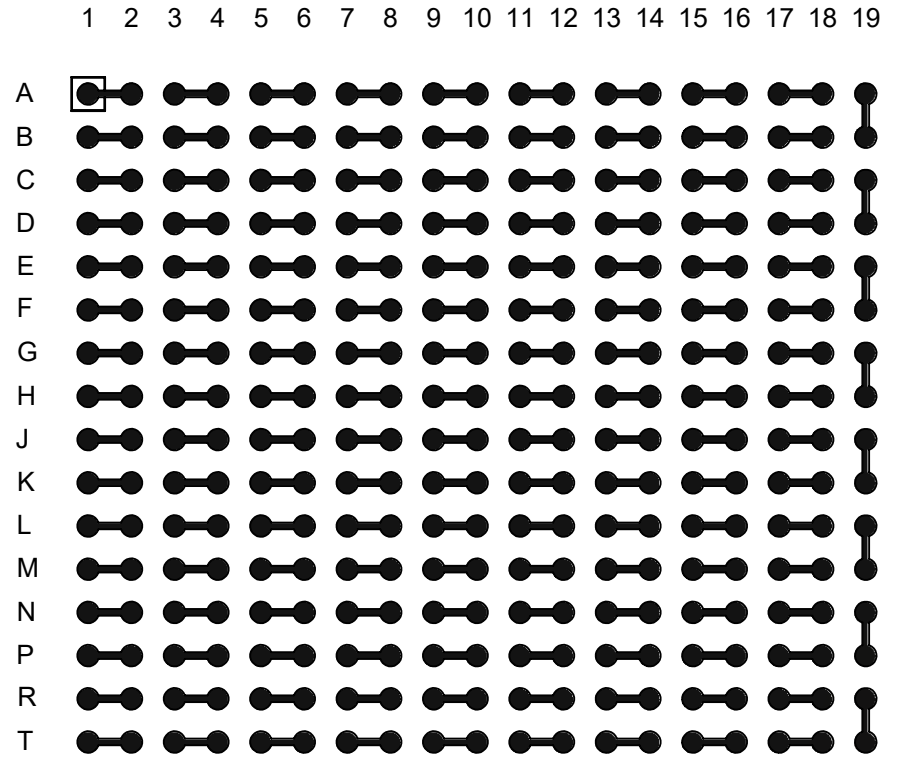
- 1) DIMENSIONS MM.
- 2) SOLDER BALL ALLOY: SEE PART NUMBER CONFIGURATION.
- 3) BALL DIAMETER (BEFORE REFLOW): 0.76mm (30 MIL).
- 4) SOLDER MASK OPENING: 0.635mm (25 MIL).
- 5) SUBSTRATE: ALUMINA CERAMIC.

APPROVALS	DATE	<b>TopLine</b> <sup>®</sup>			
DRAWN T. Au	08/20/2022				
ENG M. Hart	08/20/2022	TITLE CBGA304T1.27L-DC63 CERAMIC BALL GRID ARRAY			
MFG		SCALE	SIZE	DRAWING NO.	REV
QA		3:1	A	520637	A
CUST		DO NOT SCALE DRAWING			SHEET 2 OF 6
REVISED					

### BALL VIEW



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



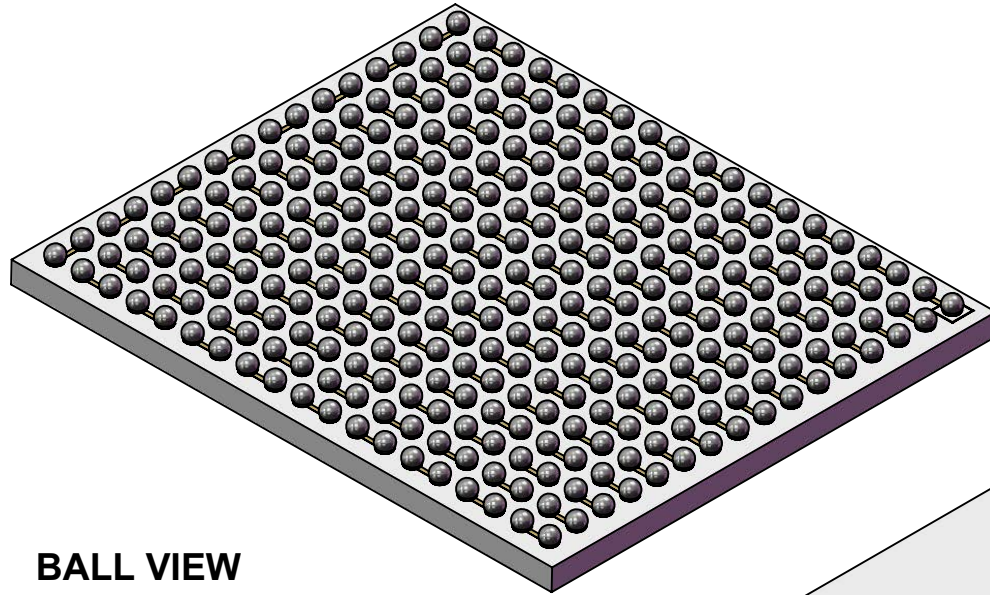
**TopLine<sup>®</sup>**

TITLE CBGA304T1.27L-DC63  
CERAMIC BALL GRID ARRAY

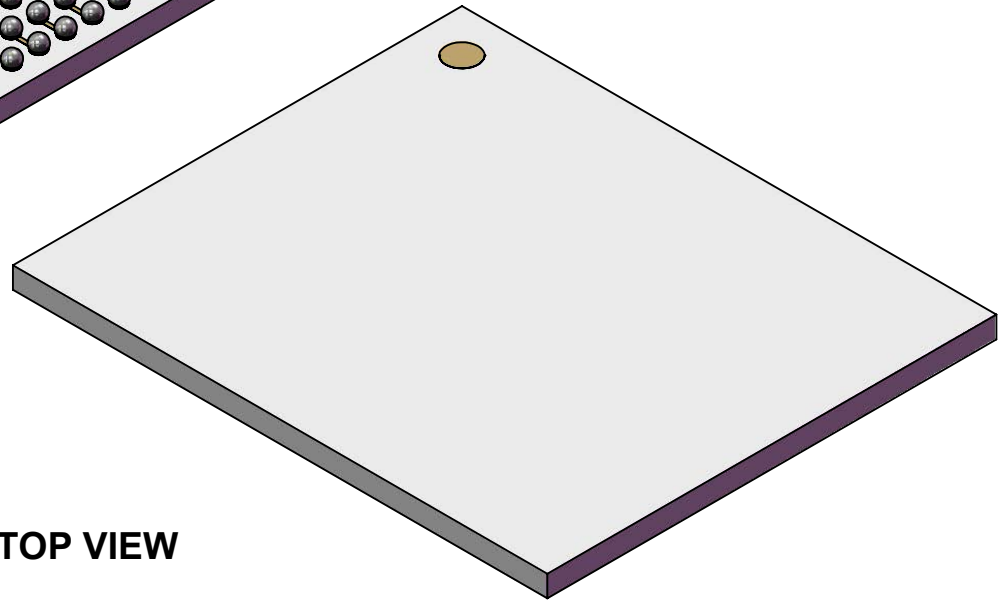
SCALE 4.5:1	SIZE A	DRAWING NO. 520637	REV A
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DO NOT SCALE DRAWING SHEET 3 OF 6

**MODEL  
CBGA WITH BALL  
WITHOUT DIE**



**BALL VIEW**



**TOP VIEW**

**TopLine®**

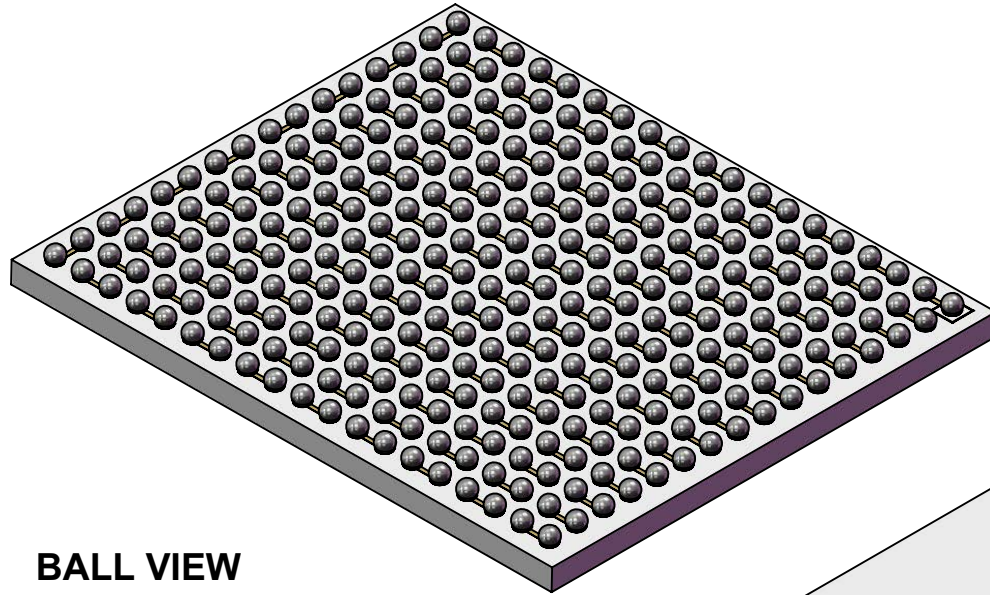
TITLE      CBGA304T1.27L-DC63  
                 CERAMIC BALL GRID ARRAY

SCALE 4:1	SIZE A	DRAWING NO. 520637	REV A
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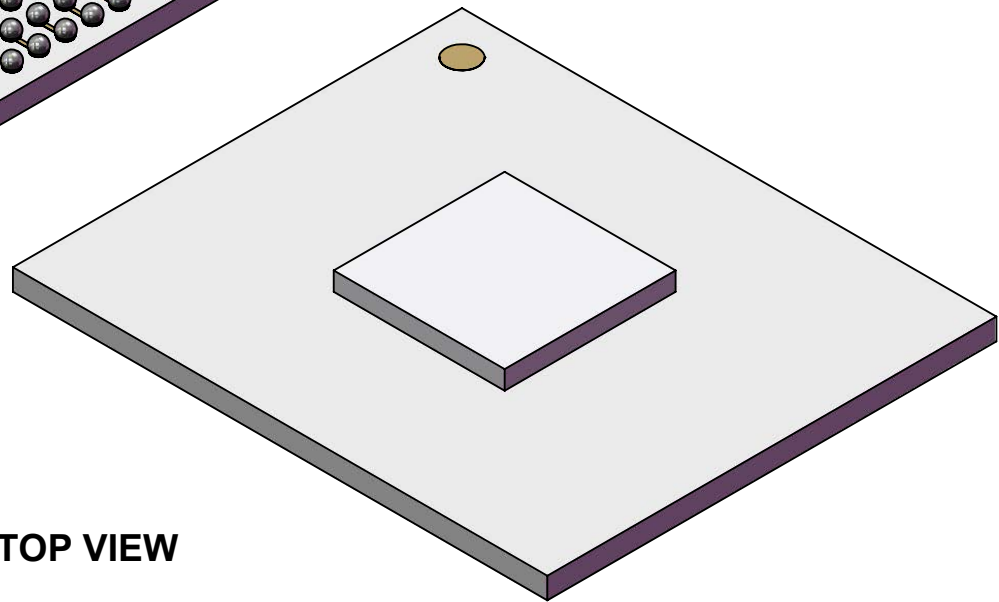
DO NOT SCALE DRAWING

SHEET 4 OF 6

**MODEL  
CBGA WITH BALL  
WITH DIE**



**BALL VIEW**



**TOP VIEW**

<b>TopLine<sup>®</sup></b>			
TITLE      CBGA304T1.27L-DC63 CERAMIC BALL GRID ARRAY			
SCALE 4:1	SIZE A	DRAWING NO. 520637	REV A
DO NOT SCALE DRAWING			SHEET 5 OF 6

# PART NUMBER SYSTEM

**CBGA**

**304**

**T**

**1.27**

**L**

**-**

**DC63**

**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**

DC63 = SEE PATTERN

PART NUMBER	BALL ALLOY	CODE	LEAD FREE	DIE
CBGA304T1.27-DC63	Sn10/Pb90	Sn10	NO	NO
CBGA304T1.27-DC63D	Sn10/Pb90	Sn10	NO	YES
CBGA304T1.27L-DC63	Sn62/Pb36/Ag2.0	Sn62	NO	NO
CBGA304T1.27L-DC63D	Sn62/Pb36/Ag2.0	Sn62	NO	YES
CBGA304T1.27X-DC63	Sn63/Pb37	Sn63	NO	NO
CBGA304T1.27X-DC63D	Sn63/Pb37	Sn63	NO	YES
CBGA304T1.27C-DC63	Sn96.5/Ag3.0/Cu0.5	SAC305	YES	NO
CBGA304T1.27C-DC63D	Sn96.5/Ag3.0/Cu0.5	SAC305	YES	YES

<b>TopLine<sup>®</sup></b>			
TITLE    CBGA304T1.27L-DC63 CERAMIC BALL GRID ARRAY			
SCALE NONE	SIZE A	DRAWING NO. 520637	REV A
DO NOT SCALE DRAWING			SHEET 6 OF 6