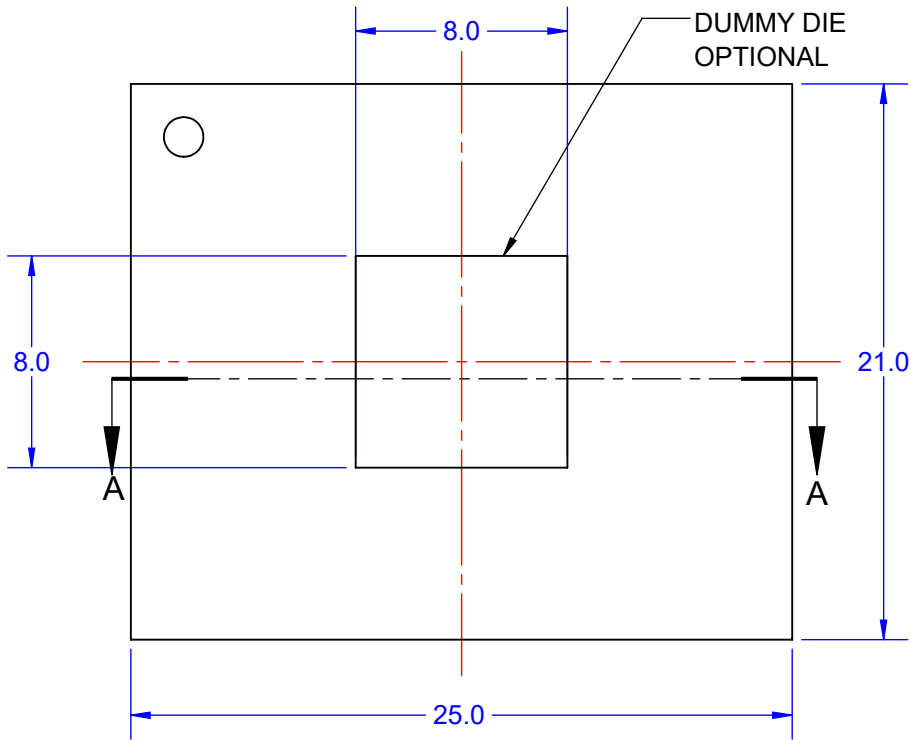
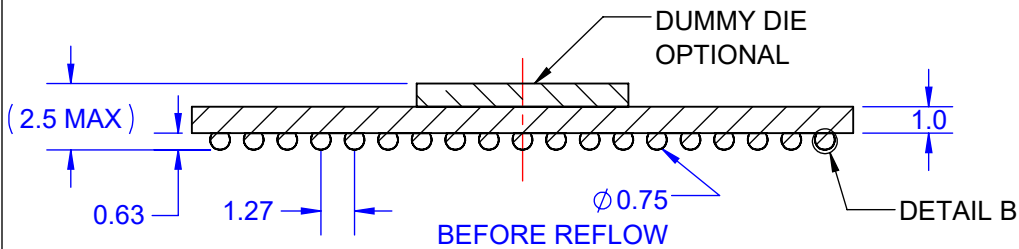
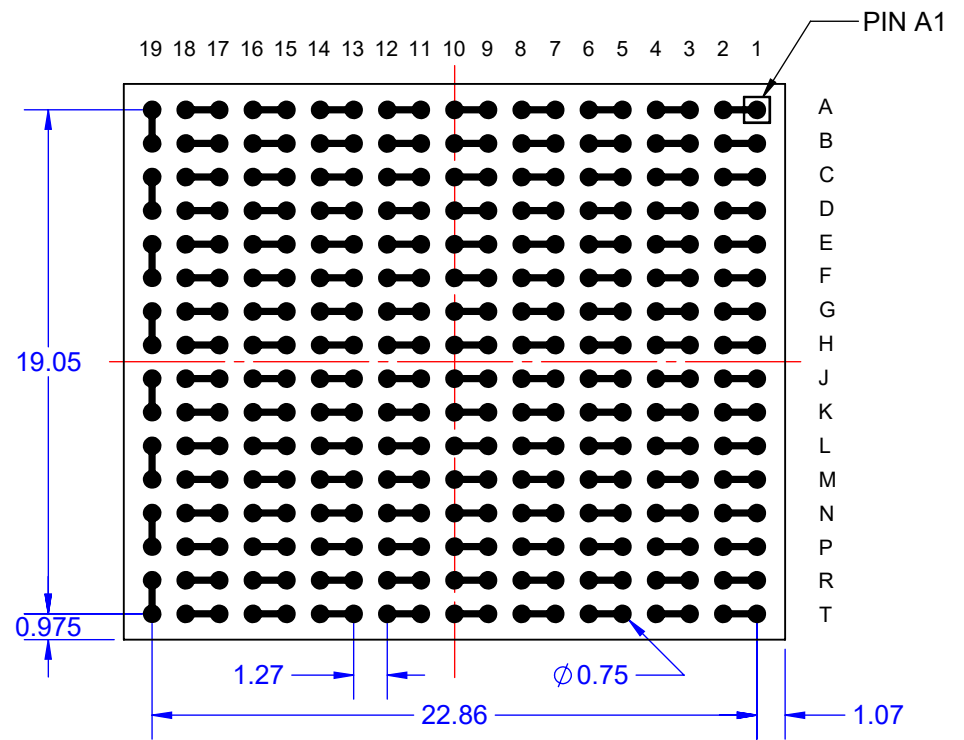


CBGA WITH DIE

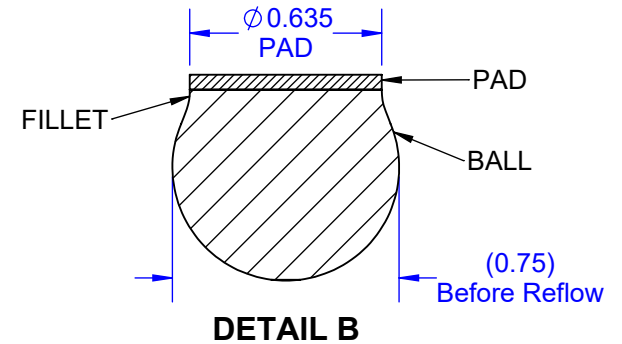
TOP VIEW



BALL VIEW



SECTION A-A
SCALE 3.5 : 1



DETAIL B

Notes: (Unless Otherwise Specified).

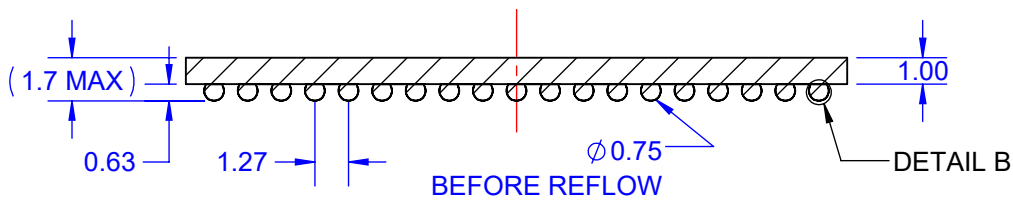
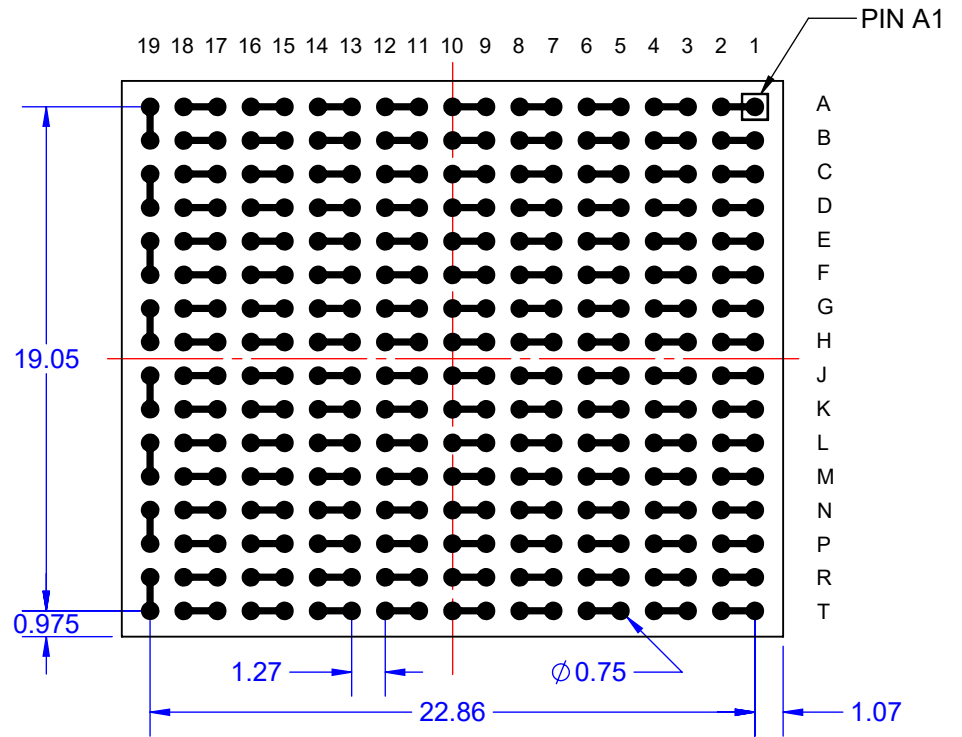
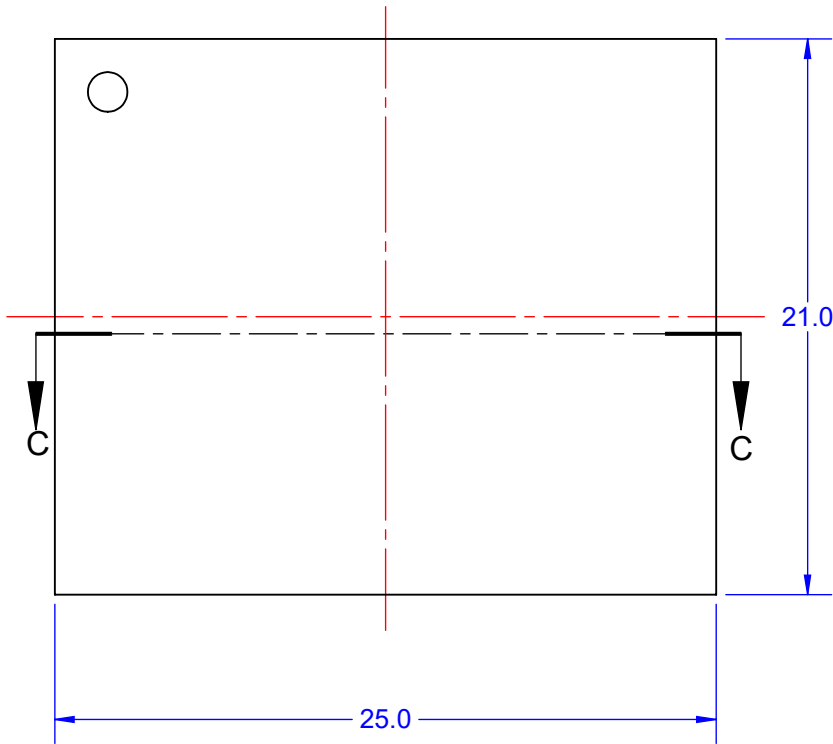
- 1) DIMENSIONS MM.
- 2) SOLDER BALL ALLOY: SEE PART NUMBER CONFIGURATION.
- 3) BALL DIAMETER (BEFORE REFLOW): 0.76mm (30 MIL).
- 4) SOLDER MASK OPENING: 0.635mm (25 MIL).
- 5) SUBSTRATE: ALUMINA CERAMIC.

| | | | | | |
|-------------|------------|--|------|-------------|--------------|
| APPROVALS | DATE | TopLine [®] | | | |
| DRAWN T. Au | 08/20/2022 | | | | |
| ENG M. Hart | 08/20/2022 | TITLE CBGA304T1.27-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 | | | | | |

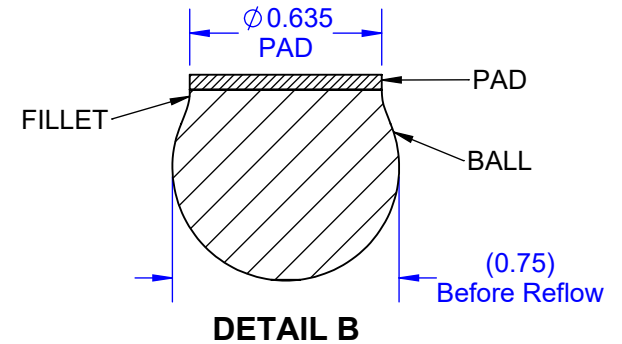
TOP VIEW

CBGA WITHOUT DIE

BALL VIEW



SECTION C-C
SCALE 3.5 : 1

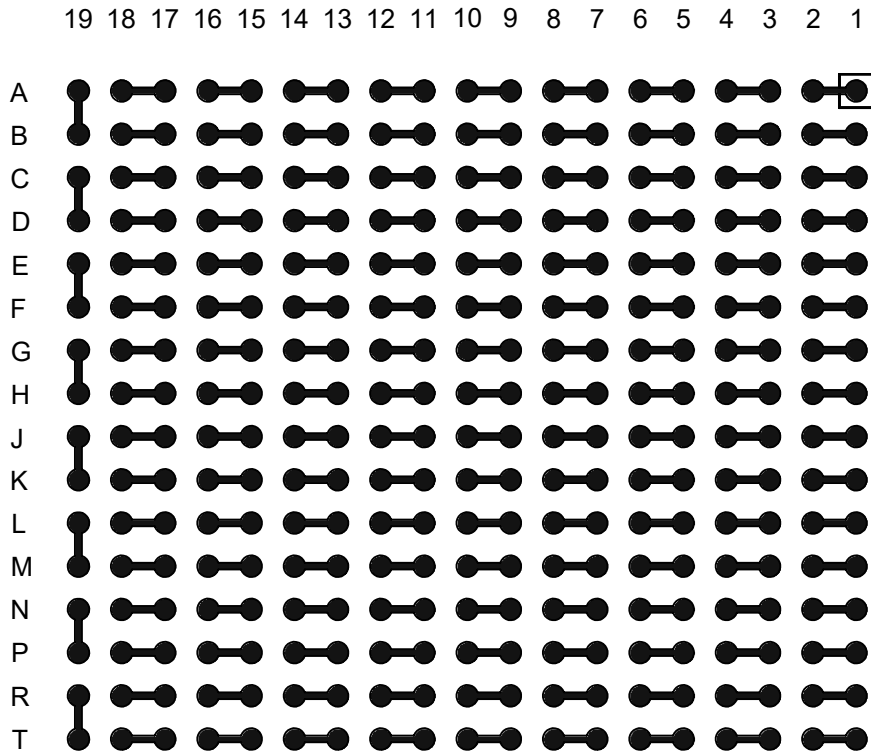


Notes: (Unless Otherwise Specified).

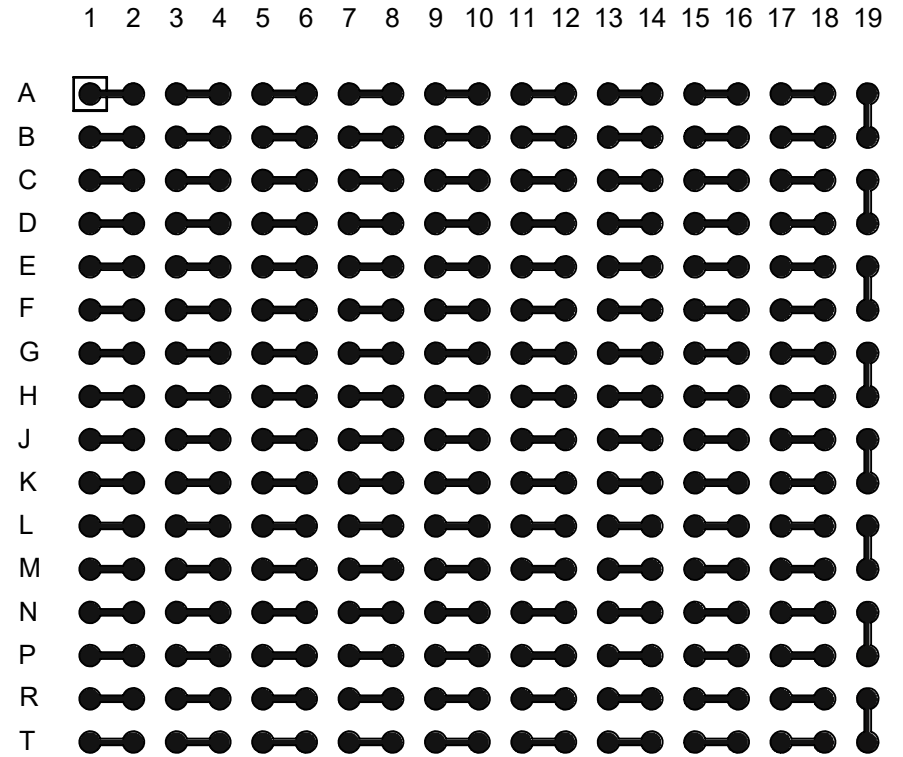
- 1) DIMENSIONS MM.
- 2) SOLDER BALL ALLOY: SEE PART NUMBER CONFIGURATION.
- 3) BALL DIAMETER (BEFORE REFLOW): 0.76mm (30 MIL).
- 4) SOLDER MASK OPENING: 0.635mm (25 MIL).
- 5) SUBSTRATE: ALUMINA CERAMIC.

| | | | | | |
|-------------|------------|--|------|-------------|--------------|
| APPROVALS | DATE | TopLine [®] | | | |
| DRAWN T. Au | 08/20/2022 | | | | |
| ENG M. Hart | 08/20/2022 | TITLE CBGA304T1.27-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)



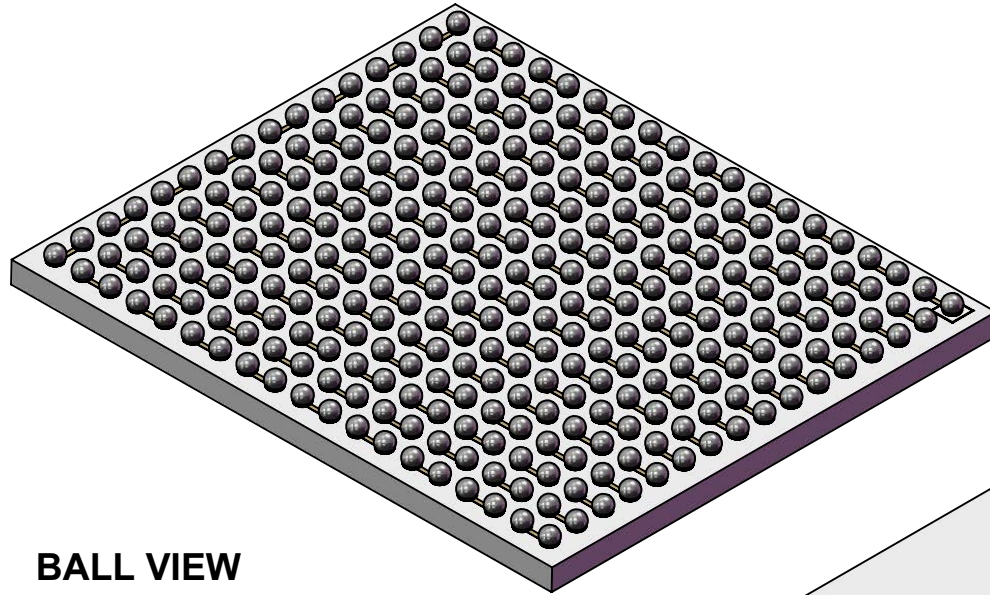
TopLine[®]

TITLE CBGA304T1.27-DC63
CERAMIC BALL GRID ARRAY

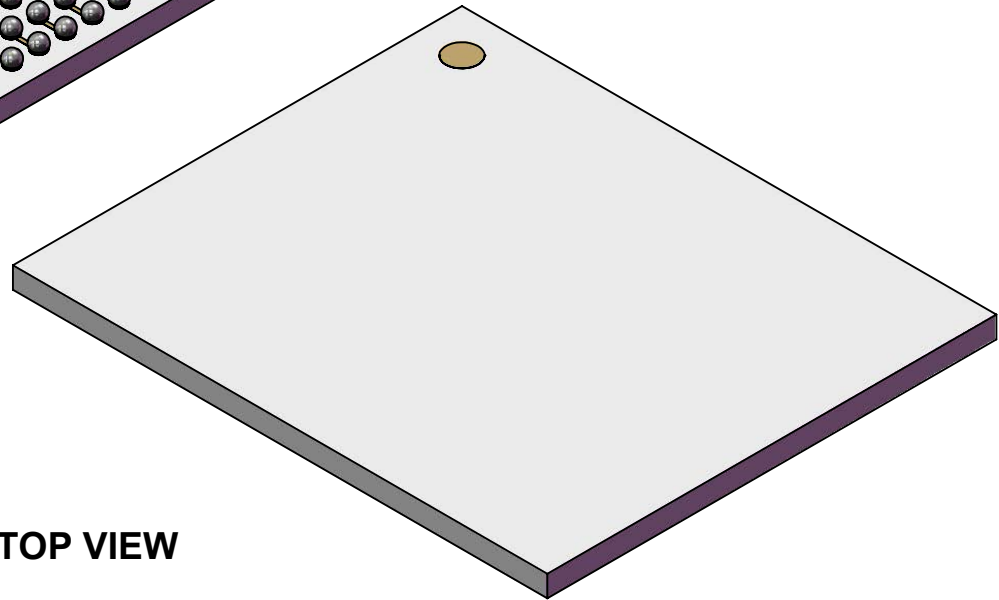
| | | | |
|----------------|-----------|-----------------------|----------|
| SCALE 4.5:1 | SIZE A | DRAWING NO. 520637 | REV A |
|----------------|-----------|-----------------------|----------|

DO NOT SCALE DRAWING SHEET 3 OF 6

**MODEL
CBGA WITH BALL
WITHOUT DIE**



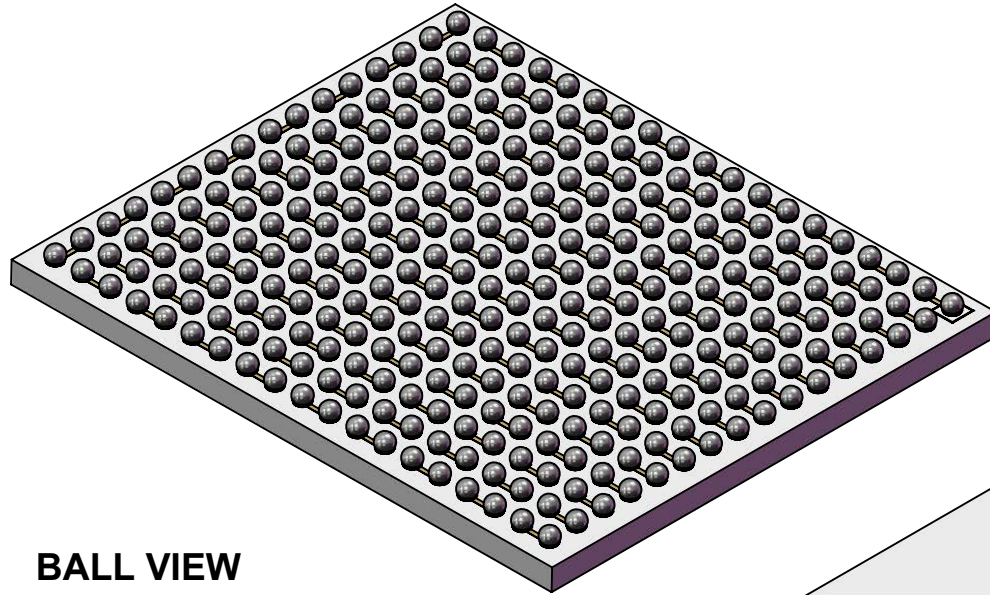
BALL VIEW



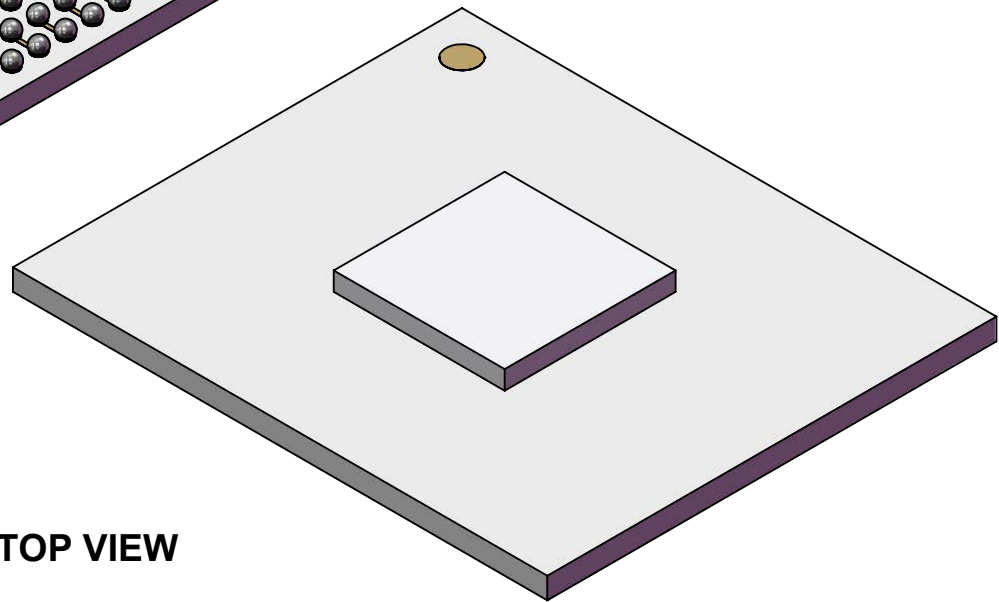
TOP VIEW

| | | | |
|---|------|-------------|--------------|
| TopLine[®] | | | |
| TITLE CBGA304T1.27-DC63 CERAMIC BALL GRID ARRAY | | | |
| SCALE | SIZE | DRAWING NO. | REV |
| 4:1 | A | 520637 | A |
| DO NOT SCALE DRAWING | | | SHEET 4 OF 6 |

**MODEL
CBGA WITH BALL
WITH DIE**



BALL VIEW



TOP VIEW

| | | | |
|---|-----------|-----------------------|--------------|
| TopLine[®] | | | |
| TITLE CBGA304T1.27-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

SERIES

CBGA = CERAMIC
BALL GRID ARRAY

304

BALLS

NBR SOLDER
BALLS

T

TRAY

T = JEDEC

1.27

PITCH

1.27mm = 0.050"

C

ALLOY

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

DC63

DAISY CHAIN

DC63 = SEE PATTERN

D

DIE

D = DUMMY DIE
BLANK = WITHOUT DIE

| 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 |

TopLine®

TITLE CBGA304T1.27-DC63
CERAMIC BALL GRID ARRAY

| | | | |
|---------------|-----------|-----------------------|----------|
| SCALE NONE | SIZE A | DRAWING NO. 520637 | REV A |
|---------------|-----------|-----------------------|----------|

DO NOT SCALE DRAWING

SHEET 6 OF 6