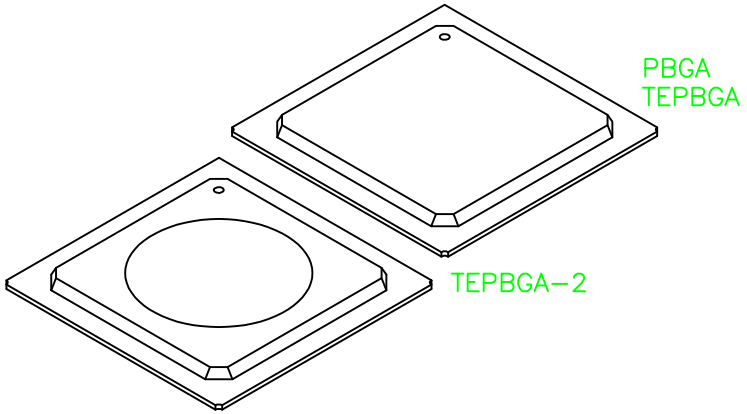
DARNO,02/16/00,11:40:05,PBGAL6D3,DocProMainN04.VWG DLADI,12/07/06,13:05:21,A3-2-B08

| REVISION HISTORY | | | | | | | |
|---|---|---|---|---|---|---|---|
| REV | DCN NUMBER | DESCRIPTION | ORIGINATOR | DATABASE FILE NAME | GERBER FILE NAME | INCORPORATOR | DATE |
| 04 | C13841 | ADDED TEPBGA-2 PACKAGE | DARNO | N/A | N/A | DARNO | 12/03/01 |
| 05 | C21255 | ADD 560 MATRIX, TEPBGA/TEPBGA-2<br>SUBSTRATE THICKNESS WAS 0.61<br>CAP TOLERANCE WAS 26.00 +0.70/-0.05 | TGROE | N/A | N/A | TGROE | 01/13/03 |
| 06 | N/A | ADDED 660 BALL MATRIX | SHLEE1 | N/A | N/A | SHLEE1 | 06/11/03 |
| 07 | N/A | ADDED 900 BALL MATRIX | JTURN | N/A | N/A | JTURN | 08/08/03 |
| 08 | N/A | REMOVE 900 BALL MATRIX | TGROE | N/A | N/A | TGROE | 12/02/03 |
| 09 | N/A | ADDED 448 BALL MATRIX | TGROE | N/A | N/A | AMILL | 03/31/04 |
| 10 | N/A | ADDED 596 BALL MATRIX | DSRYU | N/A | N/A | AMILL | 08/06/04 |
| 11 | N/A | ADDED 640 BALL MATRIX | RQUIN | N/A | N/A | RQUIN | 11/24/04 |
| 12 | N/A | ADDED ADDITIONAL 676 BALL MATRIX | JROWE | N/A | N/A | JROWE | 01/28/05 |
| 13 | N/A | ADDED ADDITIONAL 900 BALL MATRIX | VMANF | N/A | N/A | VMANF | 05/03/05 |
| 14 | N/A | ADDED ADDITIONAL 570 BALL MATRIX | NZHAN | N/A | N/A | NZHAN | 11/16/05 |
| 15 | N/A | ADDED ADDITIONAL 832 BALL MATRIX | JHSHIM | N/A | N/A | JHSHIM | 02/10/06 |
| 16 | N/A | ADDED ADDITIONAL 664 BALL MATRIX | HJKHIM | N/A | N/A | HJKHIM | 05/16/06 |
| 17 | N/A | ADDED ADDITIONAL 676-3 BALL MATRIX | DLADI | N/A | N/A | DLADI | 12/07/06 |
| 18 | N/A | ADDED ADDITIONAL 480 BALL MATRIX | SWOLEE | N/A | N/A | SWOLEE | 05/07/07 |




8. REFERENCE SPECIFICATIONS:
   A. AWW SPEC #001-0531-2234: PACKING OPERATION PROCEDURE.
   B. AWW SPEC #001-0519-2062: MARKING.
   C. THIS DRAWING CONFORMS TO THE JEDEC REGISTERED OUTLINE MS-034/A VARIATION AAN-1.

7. A1 BALL PAD CORNER I.D. FOR PLATE MOLD: TO BE MARKED BY INK.
   AUTO MOLD: DIMPLE TO BE FORMED BY MOLD CAP.

6. PRIMARY DATUM C AND SEATING PLANE ARE DEFINED BY THE SPHERICAL CROWNS OF THE SOLDER BALLS.

5. DIMENSION IS MEASURED AT THE MAXIMUM SOLDER BALL DIAMETER, PARALLEL TO PRIMARY DATUM C.

4. THE MAXIMUM ALLOWABLE NUMBER OF SOLDER BALLS IS 900.

3. THE MAXIMUM SOLDER BALL MATRIX SIZE IS 30 X 30.

2. THE BASIC SOLDER BALL GRID PITCH IS 1.00mm.

1. ALL DIMENSIONS AND TOLERANCES CONFORM TO ASME Y14.5M-1994.

NOTES: UNLESS OTHERWISE SPECIFIED

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS
DECIMAL X.X ±0.1 X.XX ±0.05 X.XXX ±0.030
ANGULAR ±1°
INTERPRET DIM AND TOL PER ASME Y14.5M - 1994
MATERIAL: SEE CROSS SECTION
FINISH: SEE NOTE 1
DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION

| APPROVALS | DATE |
|---|---|
| DESIGNED PGONZ | 12/05/00 |
| CHECKED JMICK | 12/05/00 |
| PRODUCT MANAGER BGOGU | 12/05/00 |
| RELEASED RHOLM | 12/05/00 |

Amkor Technology www.amkor.com

TITLE: PACKAGE OUTLINE - PBGA CUSTOM, 30 X 30 MATRIX, 31.00mm X 31.00mm, 26.00mm X 26.00mm X 1.17mm MOLD CAP, 1.00mm PITCH, LAMINATE SUBSTRATE, AWW

| SIZE | SID NUMBER | DWG NUMBER | REV |
|---|---|---|---|
| A3 | N/A | 81884 | 18 |

| STRIP DWG NUMBER/REV | PKG OUTLINE DWG NO. | SCALE | SHEET |
|---|---|---|---|
| N/A | N/A | NONE | 1 OF 11 |

FORM NO: MBFLAM1D1.DWG