



| DIM | MILLIMETERS | | | INCHES | | |
|-----|-------------|-------|-------|----------|------|------|
| | MIN | NOM | MAX | MIN | NOM | MAX |
| A | 0.880 | 0.930 | 0.980 | .035 | .037 | .039 |
| A1 | 0.250 | 0.280 | 0.310 | .010 | .011 | .012 |
| A2 | 0.630 | 0.650 | 0.670 | .025 | .026 | .027 |
| b | 0.340 | 0.370 | 0.400 | .013 | .015 | .016 |
| D | 2.552 | 2.602 | 2.652 | .100 | .102 | .104 |
| D1 | 2.000 BSC | | | .079 BSC | | |
| E | 1.680 | 1.730 | 1.780 | .066 | .068 | .070 |
| E1 | 1.130 BSC | | | .044 BSC | | |
| e | 0.500 BSC | | | .020 BSC | | |
| MD | 5 BALLS | | | 5 BALLS | | |
| ME | 3 BALLS | | | 3 BALLS | | |
| N | 15 BALLS | | | 15 BALLS | | |

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. MD IS THE BALL MATRIX SIZE IN THE "D" DIRECTION, ME IS THE BALL MATRIX SIZE IN THE "E" DIRECTION, AND N IS THE TOTAL NUMBER OF BALLS FOR THE MATRIX SIZE MD X ME AND DOES NOT INCLUDE BALLS FROM ANY DEPOPULATED LOCATIONS. DIMENSIONING AND TOLERANCING CONFORM TO ASME Y14.5M.-2009.
3. DIMENSIONING AND TOLERANCING CONFORM TO ASME Y14.5M.-2009.
4. PRIMARY DATUM C (SEATING PLANE) IS DEFINED BY THE CROWNS OF THE SOLDER BALLS.
5. DIMENSION b IS MEASURED AT THE MAXIMUM SOLDER BALL DIAMETER IN A PLANE PARALLEL TO DATUM C.
6. THERE SHALL BE A MINIMUM CLEARANCE OF 0.10MM BETWEEN THE EDGE OF THE BUMP AND THE BODY EDGE.
7. MARKING SHOWN IS FOR PKG. ORIENTATION PURPOSE ONLY.
8. MATERIAL MUST COMPLY WITH BANNED AND RESTRICTED SUBSTANCES SPEC #10-0131.
9. ALL DIMENSIONS APPLY TO PbFREE (+) PKG. CODES ONLY.

-DRAWING NOT TO SCALE-



TITLE:
PACKAGE OUTLINE, 15 BALLS
WLCSP, 0.50mm PITCH, C152D1+1

APPROVAL

DOCUMENT CONTROL NO.

REV.

1/1

21-0907

A

1/1