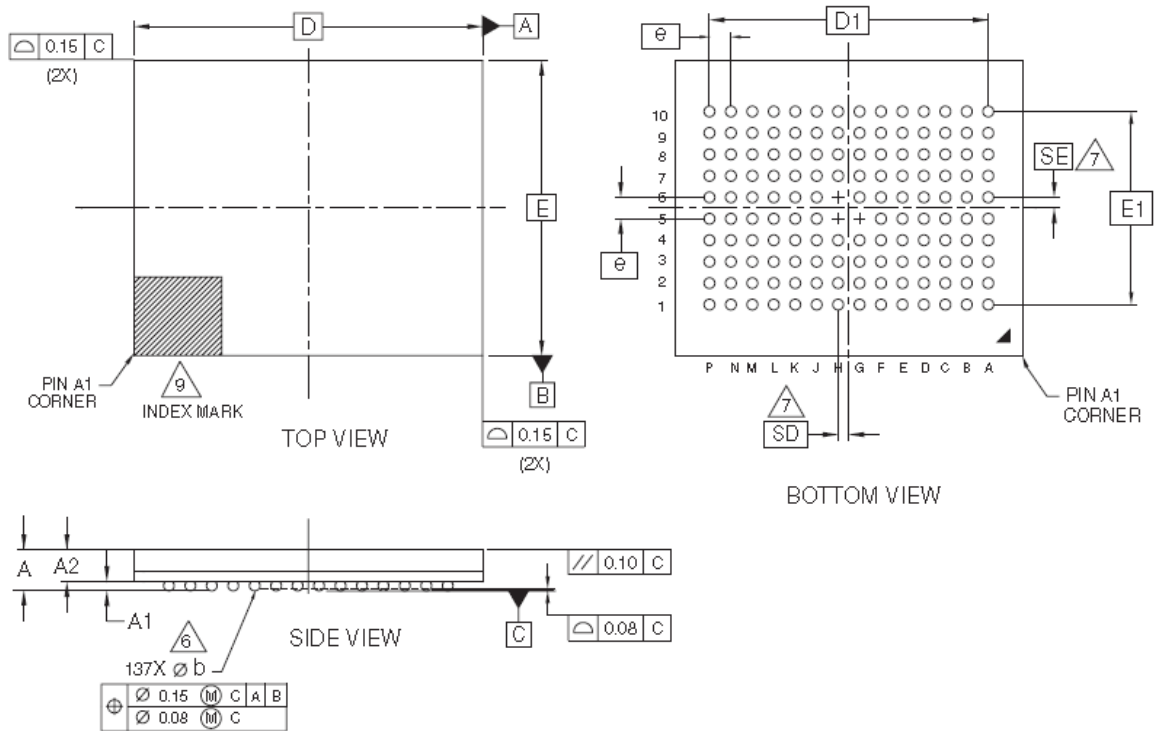


# VBP137—137-Ball Fine Pitch Ball Grid Array (FBGA)



| PACKAGE  | VBP 137                         |      |      |                             |
|----------|---------------------------------|------|------|-----------------------------|
| JEDEC    | N/A                             |      |      |                             |
|          | 13.00 mm x 11.00 mm NOM PACKAGE |      |      |                             |
| SYMBOL   | MIN                             | NOM  | MAX  | NOTE                        |
| A        | --                              | ---  | 1.00 | OVERALL THICKNESS           |
| A1       | 0.17                            | ---  | --   | BALL HEIGHT                 |
| A2       | 0.60                            | ---  | 0.76 | BODY THICKNESS              |
| D        | 13.00 BSC.                      |      |      | BODY SIZE                   |
| E        | 11.00 BSC.                      |      |      | BODY SIZE                   |
| D1       | 10.40 BSC.                      |      |      | BALL FOOTPRINT              |
| E1       | 7.20 BSC.                       |      |      | BALL FOOTPRINT              |
| MD       | 14                              |      |      | ROW MATRIX SIZE D DIRECTION |
| ME       | 10                              |      |      | ROW MATRIX SIZE E DIRECTION |
| N        | 137                             |      |      | TOTAL BALL COUNT            |
| $\phi b$ | 0.35                            | 0.40 | 0.45 | BALL DIAMETER               |
| e        | 0.80 BSC.                       |      |      | BALL PITCH                  |
| SD/SE    | 0.40 BSC.                       |      |      | SOLDER BALL PLACEMENT       |
|          | G5,H5,H6                        |      |      | DEPOPULATED SOLDER BALLS    |