



FF/EF665 - PbSn SOLDER BALLS
FFG665 - SnAgCu SOLDER BALLS
FFV665 - SnAgCu SOLDER BALLS

| SYMBOL | MILLIMETERS | | | NOTE |
|--------------------------------|-------------|----------|------|------|
| | MIN. | NOM. | MAX. | |
| A | 2.50 | <i>↗</i> | 2.90 | 2 |
| A ₁ | 0.40 | <i>↗</i> | 0.60 | |
| A ₂ | 0.65 | <i>↗</i> | 1.10 | |
| D/E | 27.00 BASIC | | | |
| D ₁ /E ₁ | 25.00 REF | | | |
| e | 1.00 BASIC | | | |
| øb | 0.50 | 0.60 | 0.70 | |
| aaa | <i>↗</i> | <i>↗</i> | 0.20 | |
| ccc | <i>↗</i> | <i>↗</i> | 0.25 | |
| ddd | <i>↗</i> | <i>↗</i> | 0.25 | |
| eee | <i>↗</i> | <i>↗</i> | 0.10 | |
| M | 26 | | | |

NOTES:

1. ALL DIMENSIONS AND TOLERANCES CONFORM TO ANSI Y14.5M-1994
2. SYMBOL 'M' IS THE BALL MATRIX SIZE.
3. CONFORMS TO JEDEC MS-034-AAL-1 (DEPOPULATED)

PK220_01_060517

Revision History

The following table shows the revision history for this document.

| Date | Version | Description of Revisions |
|------------|---------|--|
| 03/22/2007 | 1.0 | Initial Xilinx release. |
| 08/05/2009 | 1.1 | Changed the overall package thickness (symbol A) from 2.35 min – 3.00 max to 2.50 min – 2.90 max. |
| 06/08/2017 | 1.2 | Added tolerances to the top view of the flat-lid dimension. Updated the Notice of Disclaimer . |

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