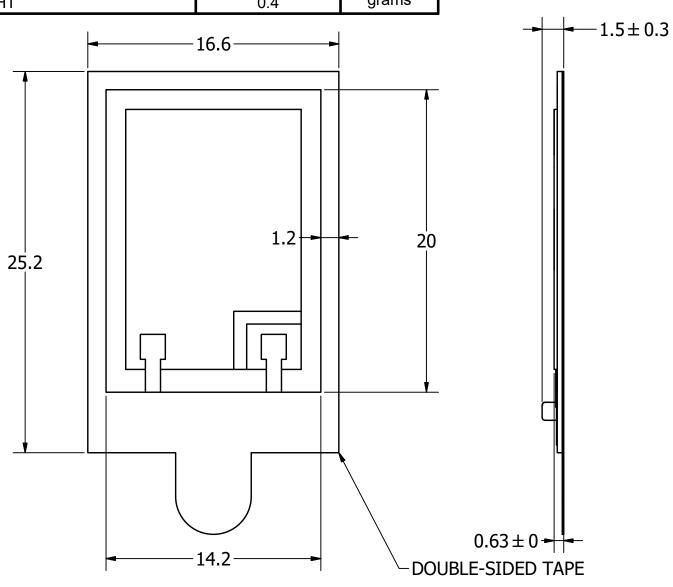
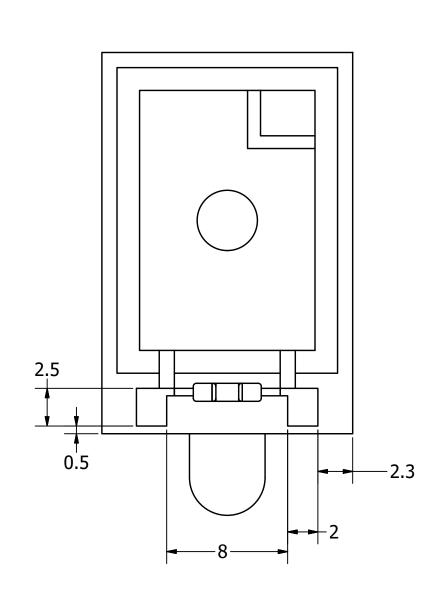
| SPECIFICATIONS          |              |       |  |  |
|-------------------------|--------------|-------|--|--|
| PARAMETERS              | VALUES       | UNITS |  |  |
| RATED INPUT POWER       | 5            | Vrms  |  |  |
| VOLTAGE RANGE           | 3 - 35       | Vp-p  |  |  |
| MIN SPL @ 5 Vrms/5 cm   | 83           | dBA   |  |  |
| (AT 1.5, 2, 2.5, 3 kHz) | 00           | GB/ ( |  |  |
| RESONANT FREQUENCY      | 1300 ± 20%   | Hz    |  |  |
| FREQUENCY RANGE         | 300 ~ 20,000 | Hz    |  |  |
| HOUSING MATERIAL        | PCB          | -     |  |  |
| OPERATING TEMPERATURE   | -20 ~ +70    | °C    |  |  |
| WEIGHT                  | 0.4          | grams |  |  |

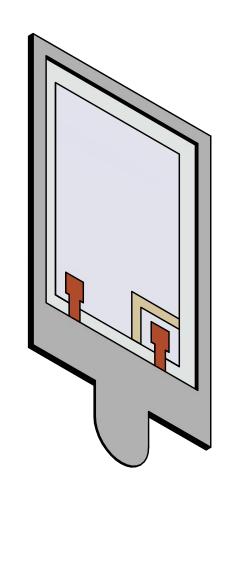
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| REVISION HISTORY |                                                                          |            |          |  |  |  |  |
|------------------|--------------------------------------------------------------------------|------------|----------|--|--|--|--|
| LTR              | DESCRIPTION                                                              | DATE       | APPROVED |  |  |  |  |
| -                | RELEASED FROM ENGINEERING                                                | 10/6/2016  |          |  |  |  |  |
| А                | ADDED 10K OHM RESISTOR FOR PROTECTION DURING<br>STORAGE                  | 12/5/2016  | M.V.     |  |  |  |  |
| В                | REVISED HEIGHT TO INCLUDE SOLDER JOINTS FOR RESISTOR                     | 12/13/2016 | M.V.     |  |  |  |  |
| С                | ADDED LABEL FOR DOUBLE-SIDED TAPE                                        | 12/22/2016 | M.V.     |  |  |  |  |
| D                | ADDED TOLERANCES TO OVERALL THICKNESS AND DIMENSIONED SOLDER PAD SPACING | 1/16/2017  | M.V.     |  |  |  |  |
| Е                | REVISED TRACES ON PIEZO CERAMIC                                          | 1/2/2018   | M.V.     |  |  |  |  |
| F                | UPDATED ENVIRONMENTAL STANDARDS                                          | 1/3/2018   | M.V.     |  |  |  |  |







## NOTES:

- 1. ALL DIMENSIONS ARE IN MILLIMETERS.
- 2. SPECIFICATIONS SUBJECT TO CHANGE OR WITHDRAWL WITHOUT NOTICE.
- 3. THIS PART IS RoHS 2011/65/EU AND REACH EC/1907/2006 COMPLIANT.

| UNLESS OTHERWISE SPECIFIED:                   | CLZE           |
|-----------------------------------------------|----------------|
| DIMENSIONS ARE IN MILLIMETERS,                | SIZE           |
| TOLERANCES<br>ARE ±0.5 AND<br>ANGLES ARE ±3°. | <b>A</b> 3     |
|                                               | L<br>S-T-R.idw |

| ſ | $\sim$      |           |            |           |             |           |            |
|---|-------------|-----------|------------|-----------|-------------|-----------|------------|
|   | M.V.        | 10/6/2016 | M.V.       | 10/6/2016 | B.R.        | 10/6/2016 | 10/6/2016  |
|   | Designed by | Date      | Checked by | Date      | Approved by | Date      | Drawn Date |



APS2513S-T-R

Speaker

on Sheet 1 / 1