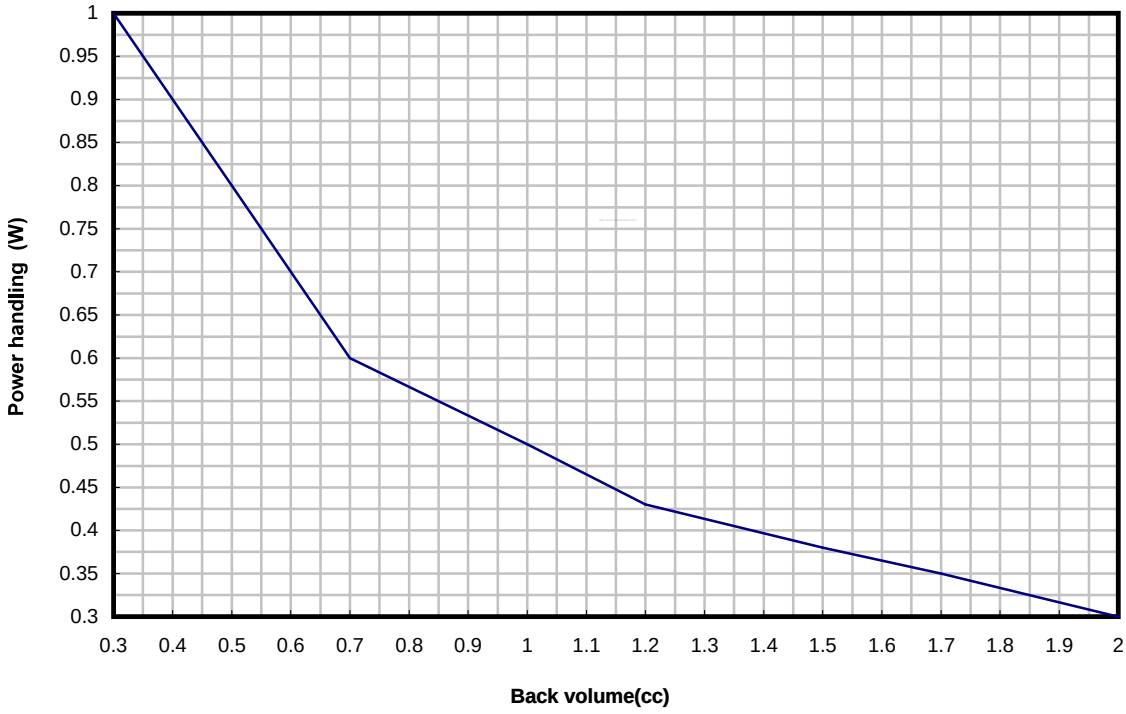
13. Application Notes

1. Air tight is needed between front cover of speaker and housing, otherwise cause audio performance's lossing, such as higher THD, lower sensitivity;
2. Tiny air leakage in back of speaker is permitted to keep balance of air pressure;
3. For this speaker, the standard power is 500mW in 1cc back cavity, when the back cavity is less or more than the standard volume of back cavity, the handling power also will be changed. See below figure about the relationship between power handling and back volume, here the power is excursion limited power, the thermal power should be evaluated, especially in small back cavity, such as 0.5cc. And the recommend minumum back volume is 0.5cc.

Power handling VS sealed back volume



4. If the power higher than 500mW input the speaker in standard back cavity, there is the risk of damaging speaker. In case of the back volume larger than 1cc, i.e. 1.5cc, the power handling of the speaker is pretty low.To maintain the rated power as 0.5W, we suggest adding thicker mesh with more acoustic resistance on the cover to reduce the vibration amplitude, or using electric filter to attenuate the maximum vibration amplitude.

5. Resonace frequency VS sealed back volume

The resonace frequency of the speaker box will vary with different sealed back volume