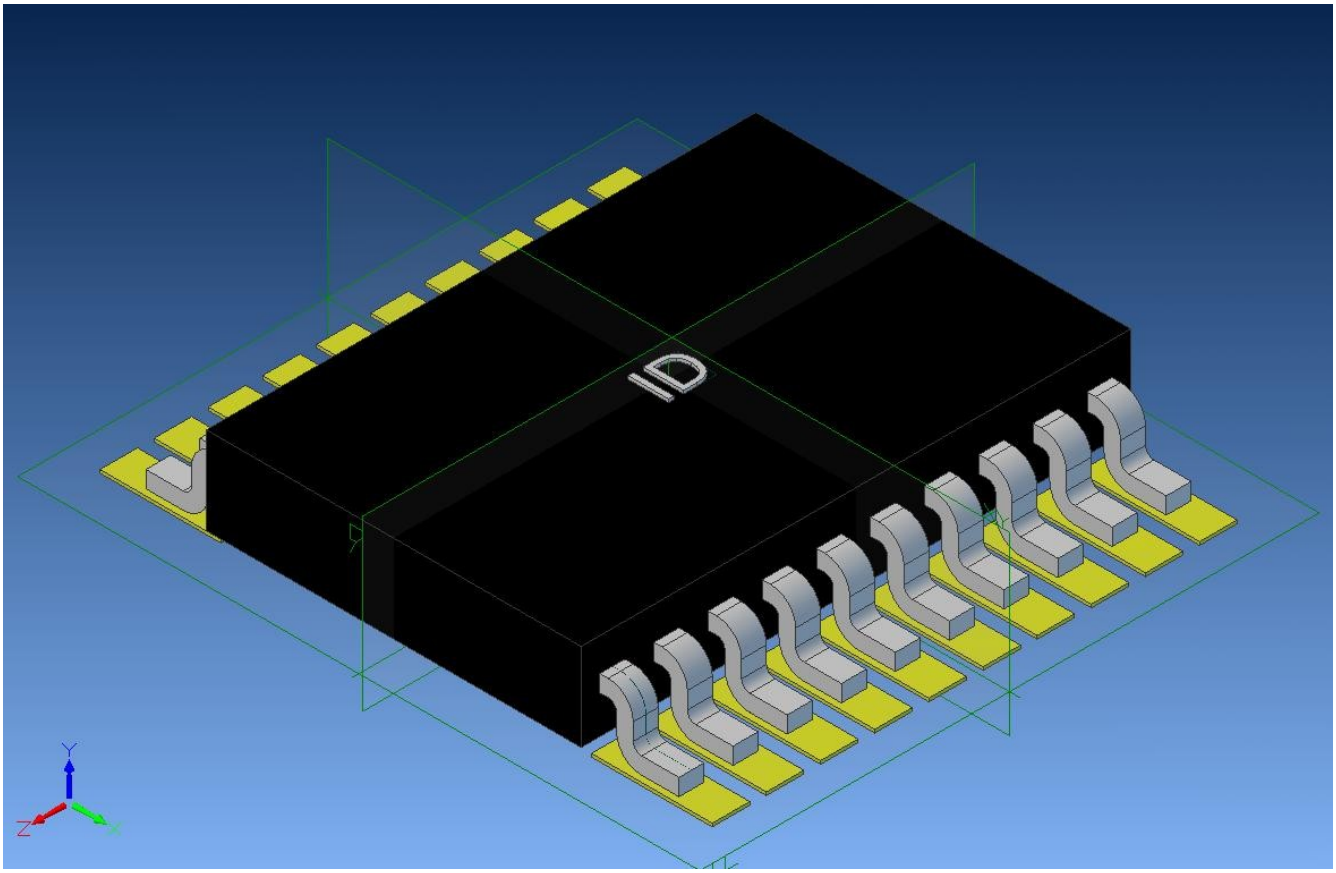
Thin Shrink Small Outline Packages (TSSOP)

This library contains TSSOP package models in 8 (08), 14, 16, 20, 24, 28, 38, 48, and 56 pin formats. These detail component parts have been constructed to represent the *maximum material condition* (MMC) for each part – usually the worst case for the mechanical designer. They are identified by their number of pins and package form factor. Thus, *08_Pin_TSSOP.AD_PRT* is an 8-pin TSSOP, *14_Pin_TSSOP.AD_PRT* is a 14-pin TSSOP, etc. Each model also contains geometry for the recommended solder pad set by size and position.



Typical TSSOP Model.

Usage: Let us say for the nonce that we have a PCBA (Printed Circuit Board Assembly) that includes an Analog Devices AD9823KRUZ Correlated Double Sampler DAX. This is packaged in the *16_Pin_TSSOP.AD_PRT* form. Load that part in Alibre Design as a part and save it under an appropriate name in the appropriate work directory (i.e. *Analog Devices AD9823KRUZ* or *IC-03* – whatever is going to be sensible for your application). You can then modify the *sketch* identified as *Component_ID* to provide visual feedback (especially important when you have several IC's using the same package type) by using the text function. I have found that text that is .020 inch (0.5 mm) tall with .030 inch (0.75 mm) line spacing works well for this. If you do **not** need the solder pad geometry (true in most applications), then you can delete the *Solider_Pads* extrusion and sketch. Editing the *Properties* will provide information you can use later in BOM operations. Save this and it is ready to insert into your PCBA model.

If you need to place solder pads for the TSSOP detail part (as opposed to having the electronics designer place them through their PCB solder pad design), then you can *project* them to your PCB (Printed Circuit Board) detail by editing it at the PCBA level. Use the *Project to Sketch* tool to create

geometry that *Maintains associativity to source entity* to assure that relocation of the IC detail will adjust the location of the solder pads.

Conclusion: Tom Lehrer once sang:

I am never forget the day I first meet the great Lobachevsky.
In one word he told me secret of success in mathematics:
Plagiarize!

Plagiarize,
Let no one else's work evade your eyes,
Remember why the good Lord made your eyes,
So don't shade your eyes,
But plagiarize, plagiarize, plagiarize -
Only be sure always to call it please 'research'.

I *researched* this information from Microchip's *Packaging Specification* document that is available at http://www.mircochop.com which means that, while I would appreciate credit for my work, I **did** steal it fair and square. I hope that this makes your life easier. If anybody has information as to the typical mass of these components, please forward it on to me (tangent@olympus.net) and I will update this library of parts. Such additional information would help in applications where vibration is involved.

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