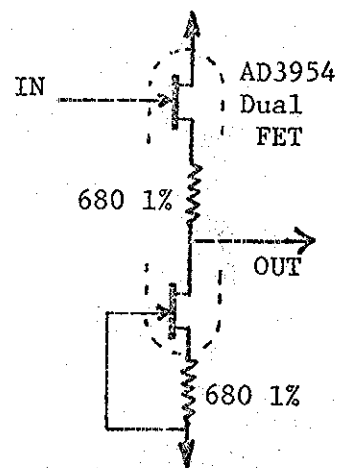


Charlie further suggests the use of the zero-offset follower formed from a pair of matched FET's. The circuit shown in Fig. 1b is given in the application literature from Siliconex. The risetime of the follower is less than or equal to 10 ns.

Fig. 1b
Zero-Offset Follower



We have used the CA3080 transconductor in almost every possible type of electronic music module. Use of a transconductor formed from discrete components in place of the CA3080 leads to better bandwidth properties. This can be useful for both VCO's and is particularly useful for realizing higher Q's with VCF circuits. One such discrete transconductor has been submitted by Charlie Thompson to complete the building blocks for the VCO. This circuit is shown in Fig. 1c where it is seen driving an integrator stage consisting of the zero offset follower and a LM318.

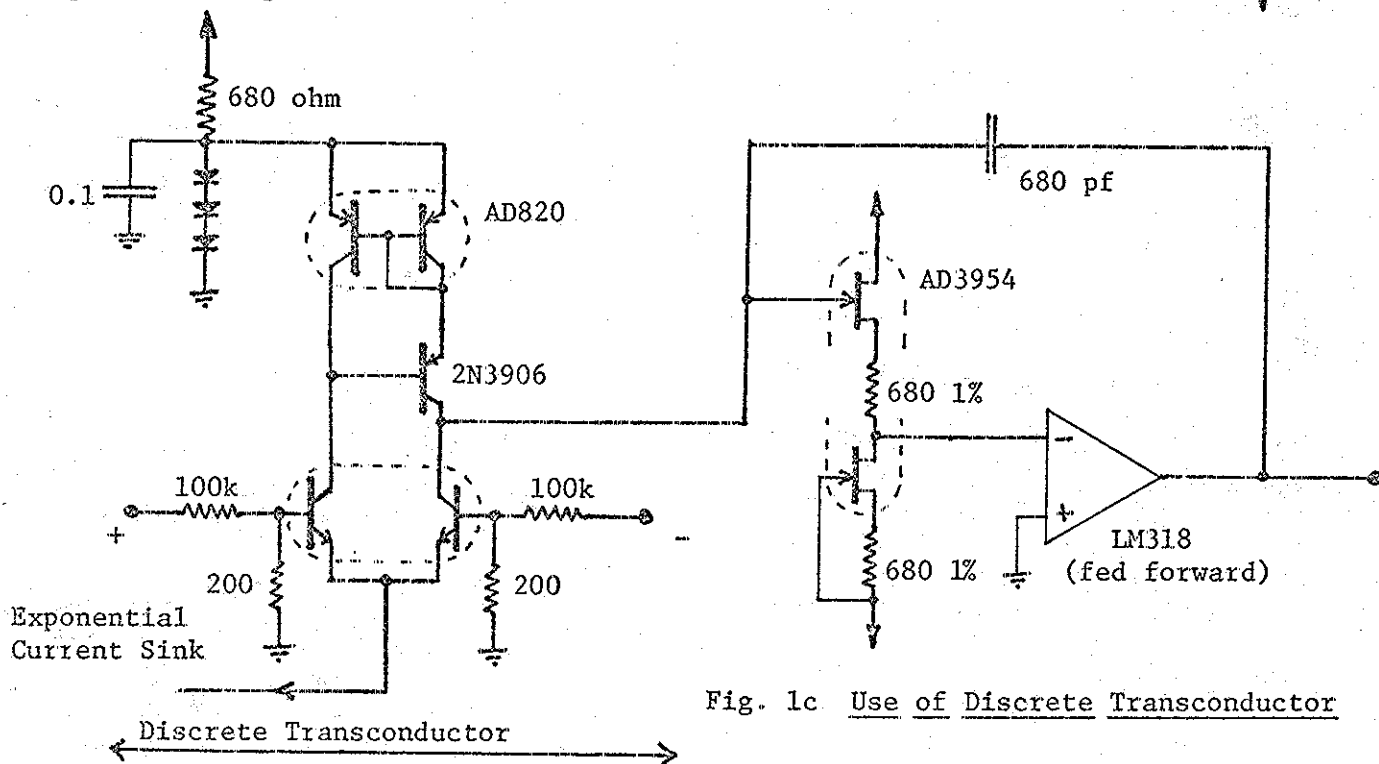


Fig. 1c Use of Discrete Transconductor

The reader will probably have little trouble seeing how these building blocks can be applied. Charlie suggests for example a typical circuit (using the 3080 instead of the discrete transconductor in this case) as shown in Fig. 1d for a VCO:

Fig. 1d
VCO

