

ABSTRACT**CIRCUITS WITH NEGATIVE DIFFERENTIAL RESISTANCE****CHARACTERISTICS**

- 5 A circuit with negative differential resistances characteristics is disclosed. The circuit comprises a first transistor with a first transistor gate, a first transistor source and a first transistor drain; a second transistor with a second transistor gate, a second transistor source and a second transistor drain; and a third transistor with a third transistor gate, a third transistor source and a third transistor drain. The third transistor drain is operatively connected to the first transistor gate and the second transistor gate. The third transistor is operatively connected to the second transistor. There is a first feedback loop to the gate of the first transistor and a second feedback loop to the gate of the second transistor.

15 **Figure 2**



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