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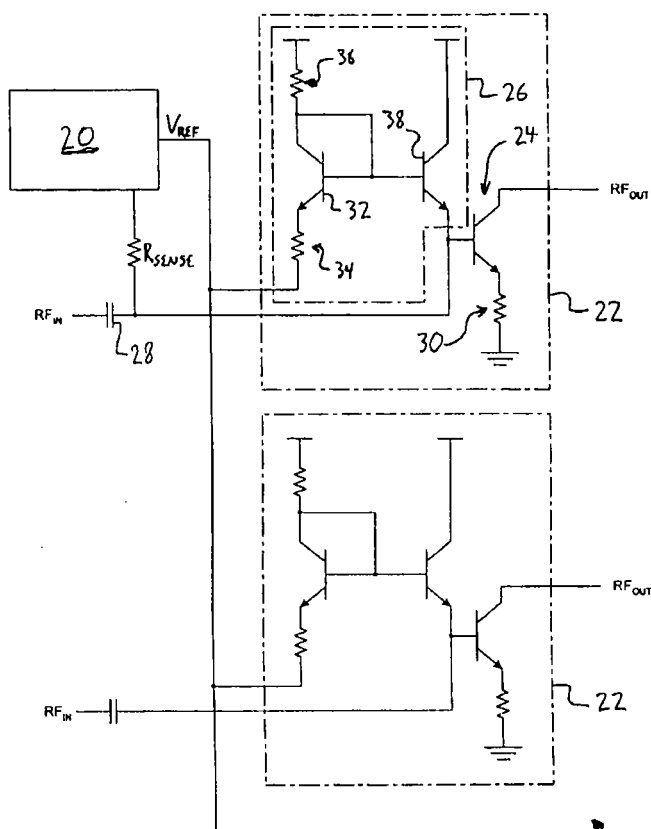
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(54) Title: RF POWER AMPLIFIER WITH DISTRIBUTED BIAS CIRCUIT



(57) Abstract: An improved amplifier circuit is disclosed. In one embodiment, the amplifier circuit includes an amplifier transistor that has a base terminal connected to receive an input signal. The amplifier circuit also includes a reference voltage source that generates a reference voltage at a reference voltage output node. A local bias circuit provides a bias voltage to the base terminal of the amplifier transistor. The local bias circuit includes a first transistor that has an emitter terminal coupled to the reference voltage output node, a collector terminal coupled to a supply voltage node, and a base terminal connected to the collector terminal. The local bias circuit also includes a second transistor that has a base terminal coupled to the base terminal of the first transistor, a collector terminal coupled to the supply voltage node, and an emitter terminal coupled to the base terminal of the amplifier transistor. The bias circuit provides a robust, thermally compensated bias voltage to any number of amplifier cells. The bias circuit is ballasted to prevent thermal runaway in any one of the amplifier cells.

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