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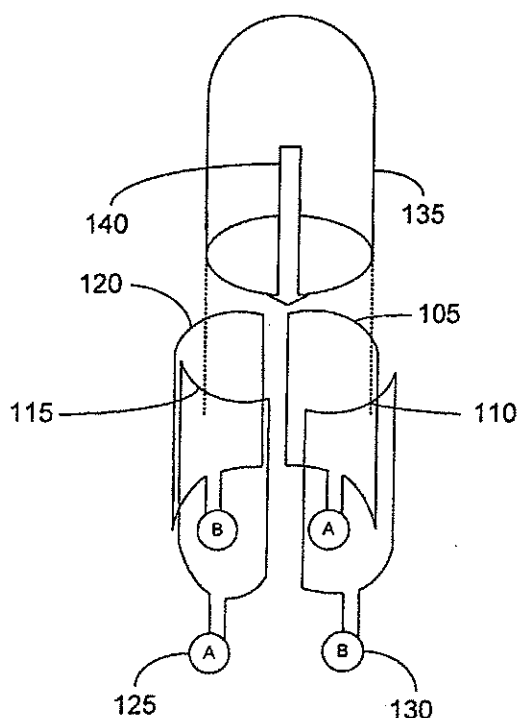
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(54) Title: **PLASMA PRODUCTION DEVICE AND METHOD AND RF DRIVER CIRCUIT WITH ADJUSTABLE DUTY CY-
CLE**



(57) Abstract: A reactive circuit is disclosed as part of a method and system for generating high-density plasma that does not require the use of a dynamic matching network for directly driving a plasma exhibiting a dynamic impedance. The reactive network is designed to provide a small total reactance when the plasma reactance is at a first plasma reactance and presents a reactance that does not exceed a specified limit at a second plasma reactance. The first and second plasma reactance span a substantially fraction of an expected dynamic plasma reactance range. The first and second plasma reactance values may, for example, correspond to a high-expected plasma reactance limit and a low expected plasma reactance limit respectively or the first plasma reactance may correspond to an average expected plasma reactance.

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