

ABSTRACTSOLID STATE TUBE COMPRESSION CIRCUIT

5 A solid state amplifier for emulating the
compression associated with an overbiased class-B push-
pull tube amplifier at high input signal levels due to
the flow of current into the grid of the output tubes
resulting in a desirable output clipping characteristic
with crossover distortion is disclosed. The invention
includes at least one pair of class-B connected solid
state devices, each having an input circuit and an
10 output circuit. The output circuits are connected for
mixing. A biasing element in the input circuit of each
paired solid state device establishes a clipping level
offset at the input circuit and at the output circuit
of each device. A clipping element in the input circuit
15 and the output circuit clips the offset at the input
circuit and clips the offset at the output circuit of
each respective solid state device. A charging element
overbiases the offset in the input circuit whenever the
input signal is greater than the input clipping
20 element. The overbiasing causes crossover distortion
for emulating the desirable compression associated with
a tube amplifier.

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