# Amorphous octa-silicon high-frequency inverter

What is a a-Si-H TFT inverter based on amorphous silicon?

The design of an a-Si:H TFT inverter based on amorphous silicon does not only con-cern the definition of its response, but also concerns its switching and its static power consumption at the level of its design and at that of the transistor fabrication from which it is constituted.

What is a diode-connected amorphous silicon transistor?

The proposed circuit uses diode-connected amorphous silicon transistors as switches and amorphous silicon transis-tors connected as capacitors for pumping task. The design makes use of the fact that, with respect to transistors, capacitors occupy most part of the chip surface.

How amorphous high frequency transformer amplitude is 5000 Hz?

When the excitation frequency is 5000 Hz,the amplitude of the vibration acceleration of the amorphous magnetic ring reaches 50 m/s2. Therefore,it is necessary to study the vibration and noise of amorphous high frequency transformers.

What is amorphous silicon technology?

Amorphous silicon technology denotes several considerations at the circuit design level. It is about taking into account the limited charge carrier mobility at the first place. This means the use of only n-type transistors. As a consequence,designers have to review integrated circuits design techniques that have been abandoned since the 1980s.

Amorphous silicon technology facilitated to the highest degree the control of amorphous silicon-based thin-film transistor electronic characteristics. This improvement is due to the fabrication ...

This article provides a comprehensive review of Silicon Carbide (SiC) based inverters designed for High-Speed (HS) drive applications, which require higher output frequencies to enhance ...

Therefore, this paper presents an experimental investigation of the iron loss characteristics of an amorphous ring core under the silicon carbide (SiC) inverter excitation at high ...

A high performance inverter consisting of amorphous zinc-tin-oxide (a-ZTO) thin film transistor (TFT) with enhancement mode and amorphous silicon-zinc-tin-oxide (a-SZTO) TFT with ...

A high-power inverter based technology high-power inverter based hybrid switch SiC+IGBT technology

The influence of natural frequency on the vibration and noise of high frequency transformer is analyzed. The vibration test of silicon steel, amorphous and nanocrystalline magnetic ...

In recent years, amorphous materials have been used for inductor and transformer cores to improve the efficiency of high power-density converters utilizing wide-bandgap semiconductor ...

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Transistors with high electron and hole charge carrier mobilities exceeding 50 and 12 cm 2 /V · s, respectively, were realized near the transition to the amorphous-growth regime. The results reveal ...

Here, solution-processed organic semiconductors and amorphous metal oxide semiconductors are integrated into a transistor, with five-stage complementary ring oscillators ...

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