# Abstracts

## Composite Anode Contact for Planar Transferred Electron Devices

*C.G. Diskus, A.L. Springer, K. Lubke, H.W. Lettenmayr and H.W. Thim. "Composite Anode Contact for Planar Transferred Electron Devices." 1993 Microwave and Guided Wave Letters 3.6 (Jun. 1993 [MGWL]): 180-181.*

In order to prevent the anode contact of transferred electron devices (TED's) from burning out, a Schottky contact is frequently used. Unfortunately this approach gives rise to a decrease in efficiency due to the built-in voltage of the Schottky contact. A possibility to avoid this decrease is to use a composite contact. By combining a short stripe of a Schottky metal with an ohmic contact, the loss of dc power dissipated in the Schottky anode contact is eliminated thereby maintaining to some extent the depletion layer necessary for preventing the formation of a stationary high field domain at the anode contact. With this approach, a 30% increase in efficiency of a CW operated field effect controlled transferred electron device (FECTED) oscillator at a frequency of 35 GHz has been obtained. The achieved efficiency of 3.8% is, to our knowledge, the highest efficiency obtained with a planar TEO at 35 GHz.

❑ Return to main document.