

Tube of the Month

LD 12

From 1939 to 1941 the German Military was busy producing effective RADAR equipment. The Germans were confident that they would win the war so directed that no new (expensive) projects would be started that couldn't be completed in a year. They were put into "panic" mode in 1943 when they found that the allies were using very high microwave equipment. Some German scientists were formed into the Bevollmachtigter fur Hochfrequenzforschung (BHF was easier to say) to produce competing microwave frequency tubes.

The Americans had been using a type of "lighthouse" planar triode for a high frequency oscillator that was usable into the mid microwaves. The Germans improved on this by making planar triodes that were coaxial and could be directly placed into cavity circuits. These tubes were also special in that they had ceramic insulation. This wouldn't be common in the U.S. until after 1950. These tubes used the "LD" prefix and the LD 12 was probably the best known. It had a removable anode cooler so the tube could use alternate cooling methods if necessary.

In 1945 when the war in Europe ended, members of the BHF ran for the American and British lines. Those that didn't make it were soon "employed" by the Russians. Few tubes were more actively developed than the LD 12. The Russians produced a long series of "look-alike" triodes that are still available today. Some were designed for pulse oscillators and some for conventional amplifier service. Pulse tubes have a GI prefix and GS tubes were for amplifiers. Hams have discovered the GI-7b to be particularly interesting. It is a larger version with an added insulator and has a dissipation of 350 watts. It has been used to replace hard to find sweep tubes in old amplifiers. The first example is an LD 12 from 1944 and the second is a GI-11b from 1978. Not much difference after 40 years.

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