



VT58A / CV1571 / 10E/410 pulsed radar transmitting triode



The valve measures 340x90mm overall and weighs 2.1kg. Filament connections are via two pins, with the grid connector at the side. The cooling block is connected to the anode.

The VT58 (E960, CV1058) and VT58A (CV1571) are similar and were based on the ACT10 transmitter valve and designed as a replacement for the NT57 silica valve. It could operate efficiently up to 200MHz and was used in the Chain Home Low radar transmitter. A pair of VT58 valves could generate 30kW peak in 3µs pulses at 1000 pps., which was 1.5 times the output of NT57s in the same equipment.

The difference between the VT58A and the VT58 is in the ageing process - a report in AVIA 7/917 (UK National Archives) makes reference to this and that the VT58A reaches 31kV, whereas the VT58 is 27kV. The process took 15 minutes per valve as opposed to 5 minutes for the VT58.

After a year it was fitted with a thoriated tungsten filament, to become the [VT98](#). See also [VT98A](#).

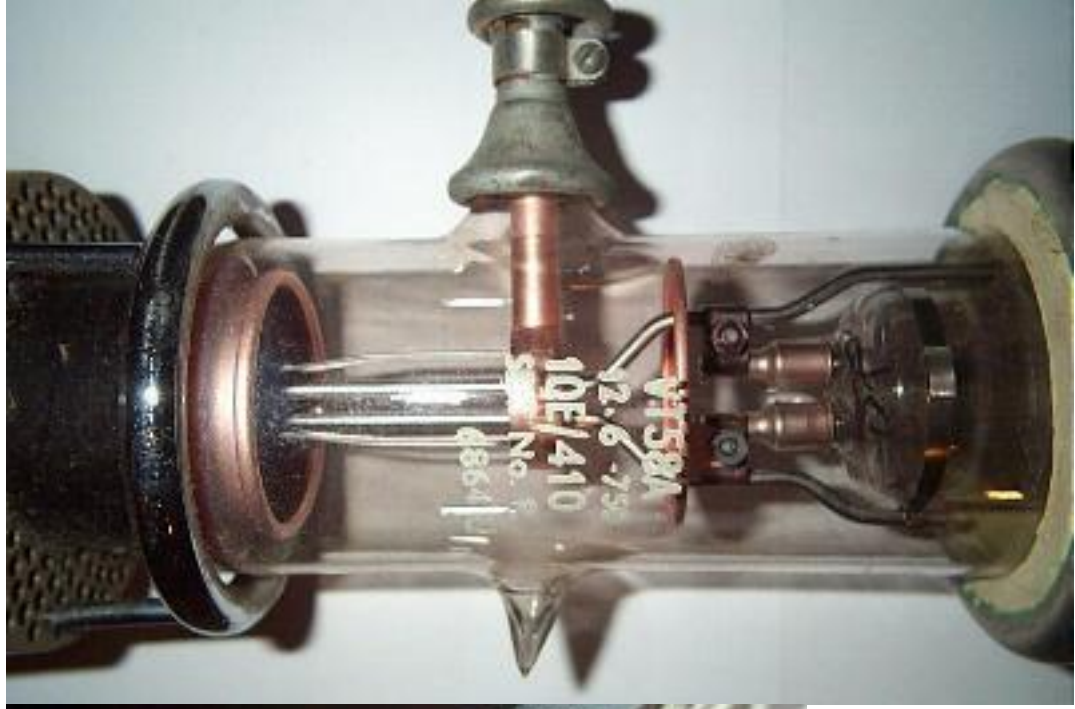
The number P9418C-11 is stamped onto the dome on the end of the anode.

Filament voltage	12.6V (approx)
Filament current	58A
Max anode dissipation	750W
Max anode voltage	23kV

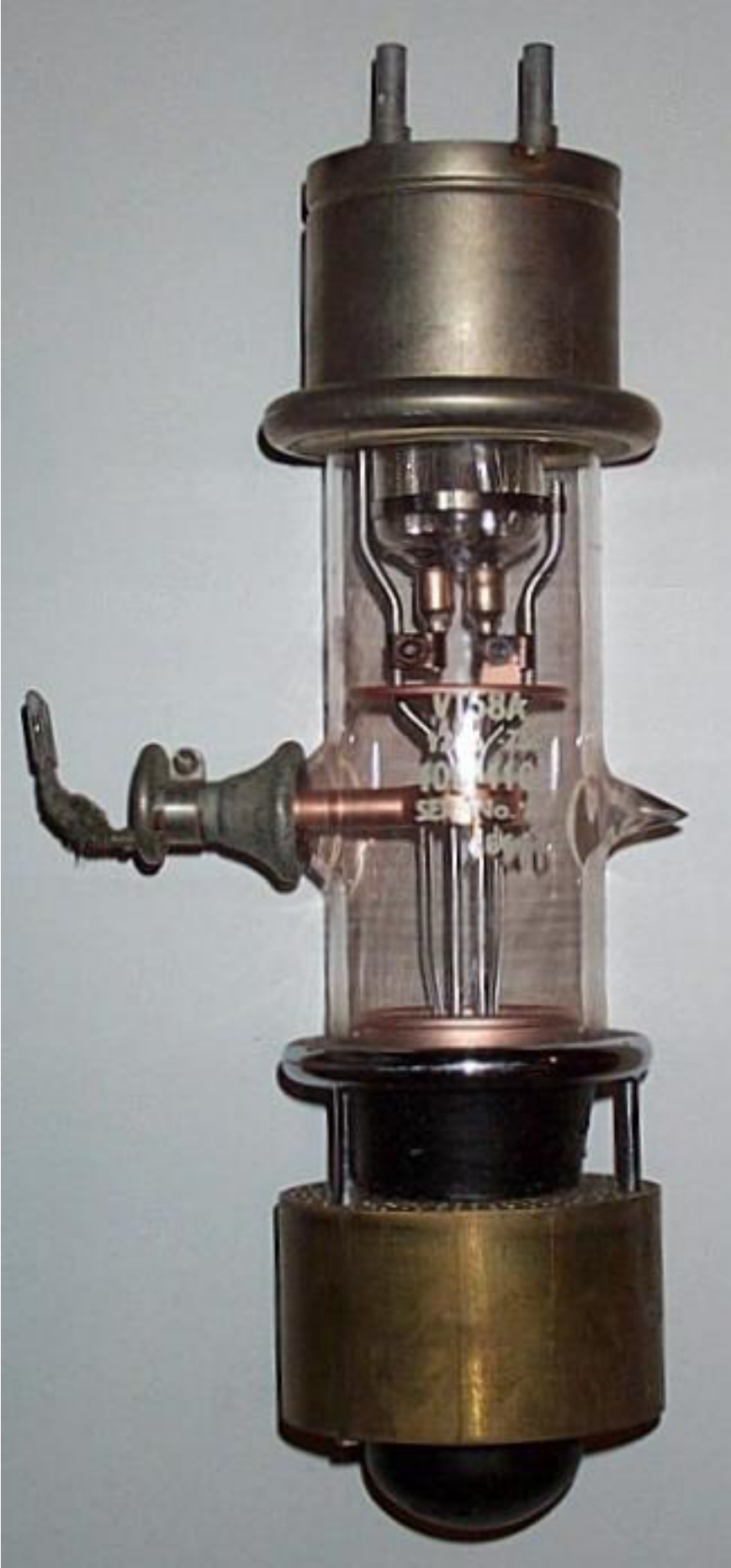
The valve was capable of operating at 100MHz, and with suitable precautions at up to 250MHz. It required forced-air cooling at 90 cu.ft./min with a pressure drop across the valve equal to 2" of water.



Above: CV1571; below: VT58A



A view of the main glass body of the valve, showing the filament leads from the right and the grid connector at the top of the picture. The grid and a part of the filament can just be seen in the picture on the right.





The transport crate, which measures 260x260x510mm, has an arrangement of springs to ensure the valve is suspended away from the crate walls. The valve is supported by a metal jacket which holds the anode block, and a pin secures this so the valve cannot move.

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