

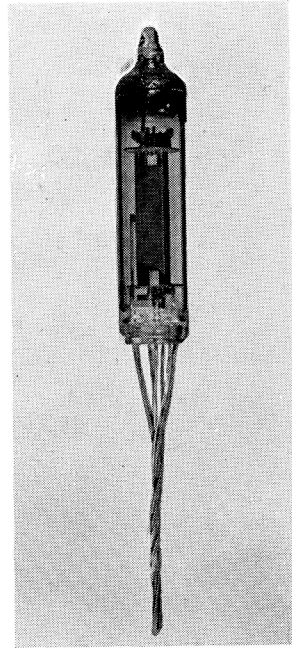
# SUBMINIATURE U.H.F. TRIODE DC 70

The DC 70 is a directly heated triode intended for purposes of transmitting and receiving at ultra high frequencies. It can for instance be used as an oscillator, amplifier, super-regenerative detector or mixer in walkie-talky equipment, balloon sondes, Citizens Radio or professional equipment, etc. When the tube is used as an oscillator, the output obtainable at 500 Mc/s ( $\lambda = 60$  cm) is about 450 mW.

The filament voltage of the DC 70 is 1.25 V at a current of 0.2 A. Being a directly heated tube, its mutual conductance is high (3.4 mA/V at an anode current of 12 mA); the amplification factor amounts to 14.

The DC 70 is provided with leads which pass through the base and are to be soldered directly to the wiring of the circuit. For this reason no tube socket is used.

The small dimensions and battery operation make the DC 70 specially suitable for use in portable equipment. The tube can be mounted in all positions.



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Fig. 1. Photograph of the DC 70 (actual size).

## TECHNICAL DATE

### FILAMENT DATA

Heating: direct by battery

Filament voltage . . . . .  $V_f = 1.25$  V

Filament current . . . . .  $I_f = 0.20$  A

### CAPACITANCES (measured with external shield and with leads marked n.c. left unconnected)

Anode to grid . . . . .  $C_{ag} = 1.4$  pF

Grid to filament . . . . .  $C_g = 1.3$  pF

Anode to filament . . . . .  $C_a = 1.9$  pF

### MOUNTING POSITION: any

Note: Direct soldered connections to the leads of the tube must be at least 5 mm from the seal, and any bending of the tube leads must be at least 1.5 mm from the seal.

ELECTRODE ARRANGEMENT

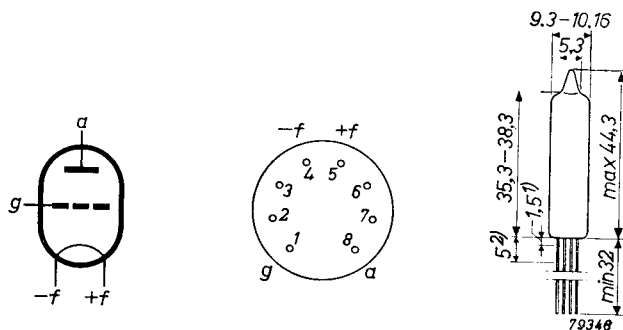


Fig. 2. Electrode arrangement, electrode connections and maximum dimensions in mm.

TYPICAL CHARACTERISTICS

Anode voltage . . . . .	$V_a = 150$ V
Grid voltage . . . . .	$V_g = -4.5$ V
Anode current . . . . .	$I_a = 12$ mA
Mutual conductance . . . . .	$S = 3.4$ mA/V
Amplification factor . . . . .	$\mu = 14$

OPERATING CHARACTERISTICS AS AN OSCILLATOR AT 500 Mc's

Anode voltage . . . . .	$V_a = 150$ V
Cathode current . . . . .	$I_k = 20$ mA
Output power . . . . .	$W_o = 0.45$ W

LIMITING VALUES

Anode voltage . . . . .	$V_a = \text{max. } 150$ V
Anode dissipation . . . . .	$W_a = \text{max. } 2.4$ W
Cathode current . . . . .	$I_k = \text{max. } 20$ mA
Grid current . . . . .	$I_g = \text{max. } 5$ mA
Filament voltage . . . . .	$V_f = \text{max. } 1.35$ V (absolute maximum)