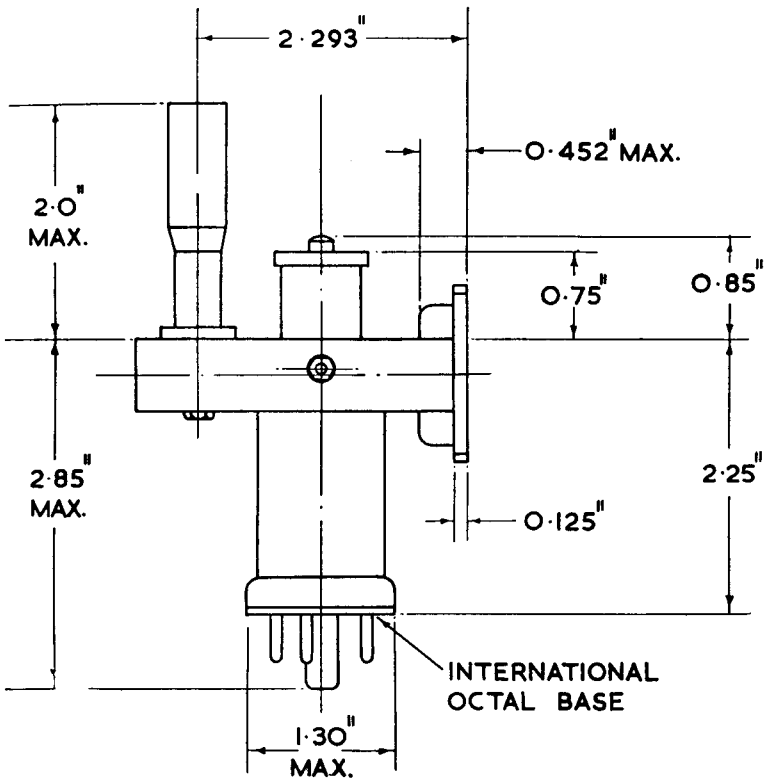
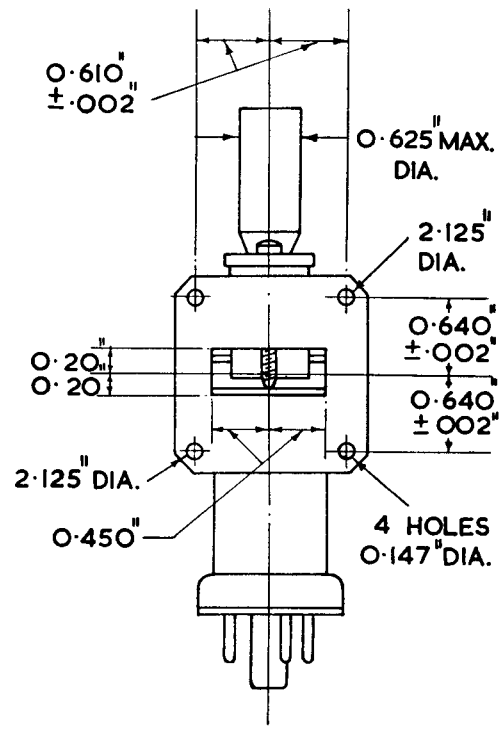
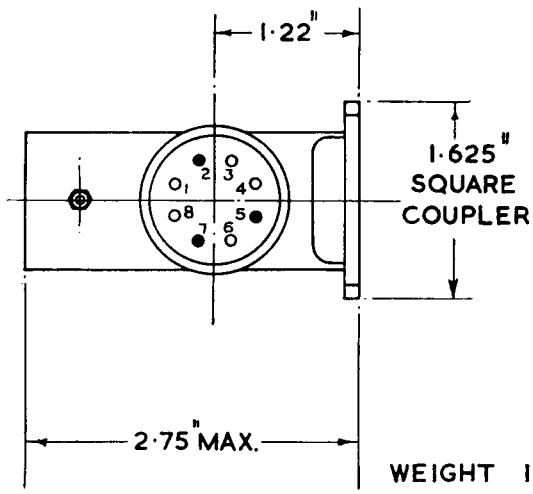
Klystron *Type K302*







PIN No.	CONNECTIONS
1.	BLANK
2.	HEATER
3.	BLANK
4.	BLANK
5.	RESONATOR
6.	BLANK
7.	HEATER & CATHODE
8.	BLANK
CAP	REFLECTOR

WEIGHT 1·75lb. (0·794 Kg.)

MARCONI'S WIRELESS TELEGRAPH COMPANY LIMITED

Chelmsford, Essex, England. Telephone: Chelmsford 3221. *Telex:* 1953. *Telegrams: Expanse Chelmsford Telex*

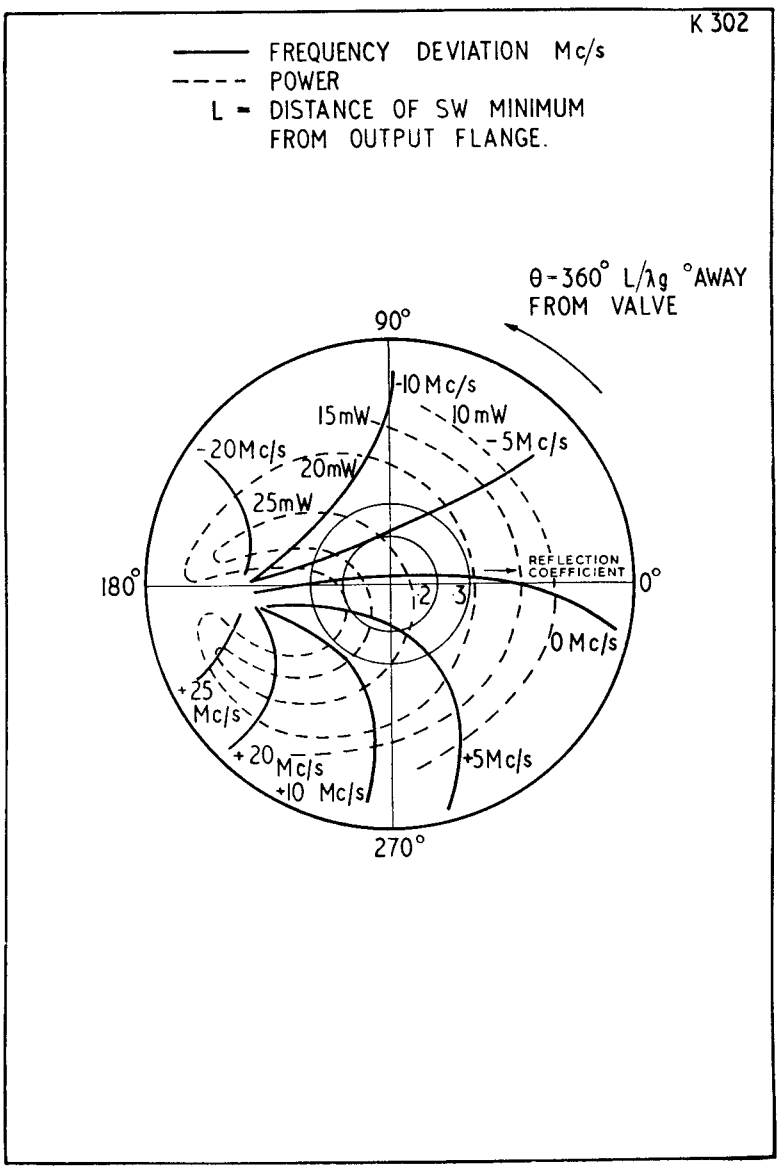
General. The K 302 klystron has been designed for use as the local oscillator in a superheterodyne receiver operating in the band 9320–9500 Mc/s (the 3 cm. band). It is for use with systems using the standard American waveguide; the internal dimensions of which are 0·9 in. ×0·4 in.

APPROXIMATE DATA

V_h	6·3	V
I_h	0·6	A
V_{bm}	350	V
I_{bm}	35	mA
$V_{reflector}$ (max range)	—90 to —155	V
$P_{out\ (min)}$ (a)	30	mW

f (Mechanical tuning range)	9320–9500	Mc/s
f (Electronic tuning range) (b)	30	Mc/s

(a) At 350 V between cathode and resonator.
(b) The electronic tuning is obtained with a reflector voltage sweep of approximately 20 V.



NOTES

(1) Each klystron is marked with the reflector voltage at which it will oscillate and give an output power of a least 12 mW over the whole frequency band.

(2) At no time should the voltage of the reflector be allowed to become equal to or more positive than the cathode: if under AFC working there is any chance of this happening, a protective diode should be fitted at the reflector.

(3) The total impedance in the reflector to cathode circuit must not exceed 0·5 MΩ.

(4) Tuning is effected by means of a reactive stub intruding into the waveguide. This stub may be operated directly by means of the micrometer or remotely by means of a shaft engaging the $\frac{1}{16}$ in. dia. pin mounted across the diameter of a $\frac{1}{4}$ in. hole recessed in the micrometer.

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