

MECHANICAL DATA

Base A4-76, Peewee 4 Pin
 Cap C1-3, Skirted Miniature
 Cooling Convection and Conduction.
 Contact rings are to make direct peripheral contact with metallic parts of the external cavity.
 Mounting Position Any
 Connections:
 Pin 1 — Control Electrode . . . Lower Contact Ring — 1st Resonator
 Pin 2 — Heater Upper Contact Ring — 2nd Resonator
 Pin 3 — Cathode Cap — Reflector
 Pin 4 — Heater

ELECTRICAL DATA

HEATER CHARACTERISTICS

Heater Voltage AC or DC ($\pm 8\%$) 6.3 Volts
 Heater Current 650 Ma

RATINGS (Absolute Values)

Resonator Voltage 350 Volts d c Max.
 Resonator Current 29 Ma d c Max.
 Reflector Voltage -700 Vts d c Max.
 -15 Volts d c Min.
 Control Electrode Voltage +1 Vol d c Max.
 -500 Volts d c Max.
 Heater-Cathode Voltage ± 45 Volts d c Max.
 Power Input 10 Watts Max.
 Seal Temperature 175°C Max.

GENERAL

Reflector Mode	1-3/4	2-3/4	3-3/4
Frequency	2300	3000	3800 Mc
	550	1100	1500 Mc

TYPICAL OPERATION

CW Oscillator

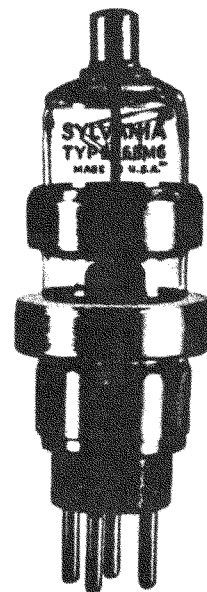
Reflector Mode	1-3/4	2-3/4	3-3/4
Cavity Mode	3/4	3/4	5/4
Frequency	1500	2200	3000 Mc
Resonator Voltage	325	300	325 Volts
Cathode Current	18	15	18 Ma
Reflector Voltage (approx.)	-235	-200	-250 Volts
Power Output	175	70	50 Mw
Electronic Tuning Range (Between Half Power Points)	6	6	6 Mc

APPLICATION DATA

The Sylvania Type 6BM6 is a broadband reflex klystron designed for cw operation. In conjunction with external cavity resonators, this tube operates over the frequency range from 550 to 3800 megacycles in three modes. The 6BM6 is particularly adapted for use in signal generator, spectrum analyzer, or local oscillator applications where broadband frequency coverage is needed.

QUICK REFERENCE DATA

The Sylvania Type 6BM6 is a broadband reflex klystron, 550 to 3800 Mc. It is designed for service as a CW oscillator using an external cavity.



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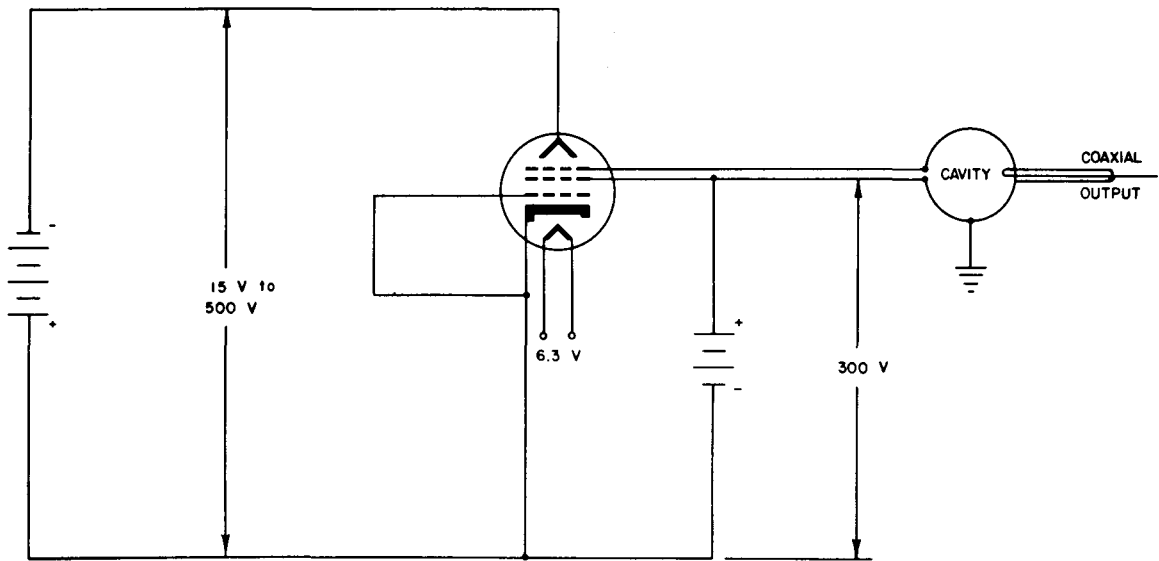
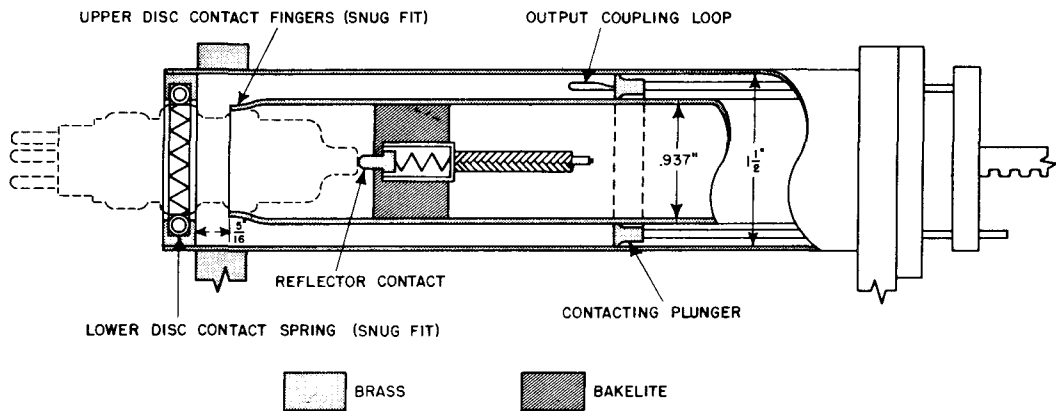


FIG. 1 — OSCILLATOR CIRCUIT EMPLOYING THE 6BM6 REFLEX KLYSTRON

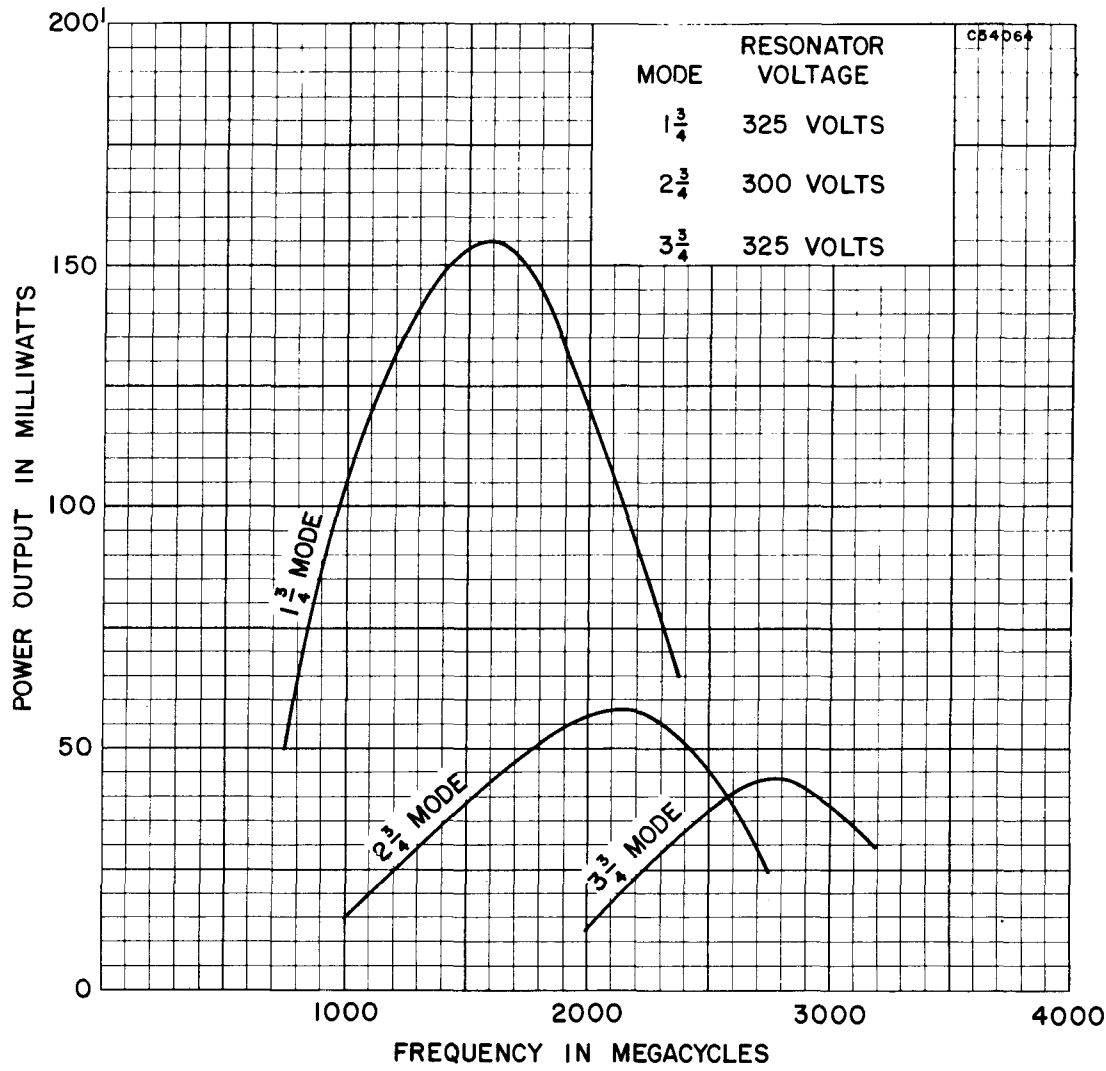


Recess in Contact Plunger	1/2"	Loop Size for 3000-5000 mc	9/32"
Loop Size for 800-3500 mc	9/16"	Loop Width for Both Ranges	.175"

The length is determined by the frequency of operation and the range of plunger motion is set by the frequency band to be covered.

FIG. 2 — DIAGRAM OF A TYPICAL COAXIAL CAVITY FOR USE WITH THE 6BL6
SHOWING ESSENTIAL DIMENSIONS

AVERAGE CHARACTERISTICS



AVERAGE CHARACTERISTICS

