BENDIX AVIATION CORPORATION
RED BANK DIVISION
ELECTRON TUBE PLANT
EATONTOWN, NEW JERSEY

September 20, 1957

TYPE 6881
Red Bank Type TD21

SUBJECT: TECHNICAL DATA

DESCRIPTION: GAS NOISE SOURCE - ARGON

This tube is designed for use as a noise source in UHF measurements. It is constructed for use with a 90° H plane mount in RG-69U waveguide or equivalent to provide noise in the 1.12 to 1.70 KMC frequency range. When used in a properly matched mount it functions essentially as an untuned noise generator over the recommended transmission bandwidth of the mount. When used in a 90° H plane mount which is terminated by a piston adjusted to match the susceptance of the tube and mount, the excess noise coupled into the guide is 15.2 Db above 290°K.

This tube may be operated in a D.C. circuit which provides a starting filament current. The operating circuit should have sufficient series resistance to limit the current through the tube to the rated value during operation.

The use of pure inert gas eliminates any dependence of noise output on operating temperature. The noise source is available for measurement at practically zero warm-up time. The performance of the tube is non-critical with respect to variations in the discharge current.

Mechanical Data

Coated filamentary cathode	-	ionically heated
Maximum diameter	-	1.55"
Maximum overall length	-	15"
Base - Cathode End	-	Bipin
Base - Anode End	-	Single pin
Mounting Position	-	any

Electrical Data

Anode Current	-	250 mAdc
Filament Current	-	350 mAdc
Tube Drop	-	65 Vdc
Tube Dissipation	-	16 watts
Ambient Temperature	-	(-)55°C min.
Bulb Temperature	-	(+)125°C max.

GAS NOISE SOURCE, ARGON

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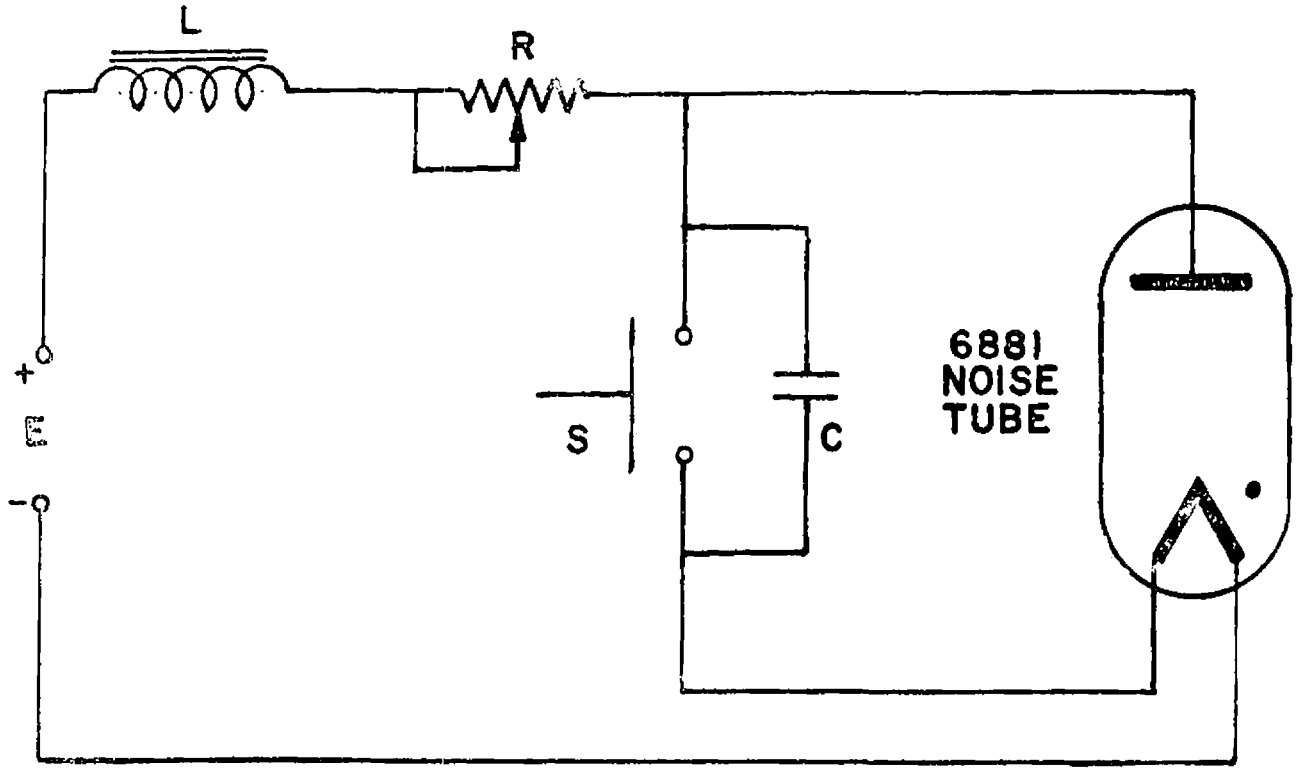
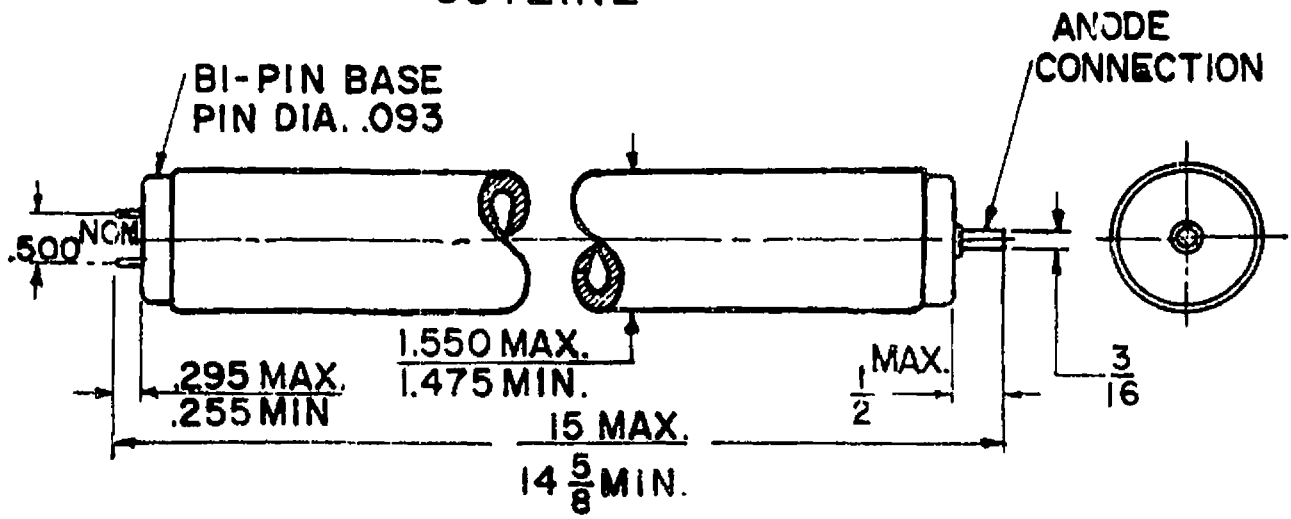
TYPICAL OPERATING CIRCUIT



E= 250 VDC
L= 2 HY - 250 MA
C= .002 MFD - 2500 V

S= N.O. MOMENTARY
R= 750 ~ 50W ADJUST
FOR 250 MA

OUTLINE