



DESCRIPTION

Sylvania Type 1B63A is a fixed-tuned broad band transmit-receive tube which allows the same antenna to be used for transmitting and receiving microwave energy. It is designed for use with the Sylvania type 1B35A or 1B37A ATR.

FREQUENCY RANGE . . . . . 8490 to 9578 mc

IGNITOR CHARACTERISTICS

Ignitor Open Circuit Voltage . . . . . -650 Vdc min.  
Ignitor Current . . . . . 100  $\mu$ a  
Ignitor Tube Drop . . . . . 200 to 375 volts

LOW POWER LEVEL UNFIRED CHARACTERISTICS

Insertion Loss . . . . . 0.7 db max.  
Ignitor Interaction . . . . . 0.2 db max.

HIGH POWER LEVEL FIRED CHARACTERISTICS

Leakage Power (Flat) (40 kw) . . . . . 40 mw max.  
Spike Leakage Energy (40 kw) . . . . . 0.2 erg  
Recovery Time . . . . . 4  $\mu$ sec @ 3 db  
Arc Loss (4 kw) . . . . . 0.8 db max.  
Position of VSW minimum . . . . . 0.065"  $\pm$  .007"

TEMPERATURE AND MECHANICAL CHARACTERISTICS

Ambient Temperature Range (non-operative): -40° to +100°C  
Mounting: Between standard rectangular rf choke flanges in  
0.400" x 0.900" ID 0.050" WT waveguide.



# 1B63A

★ #18 (.1695") DRILL 4-HOLES

**NOTE 2.**

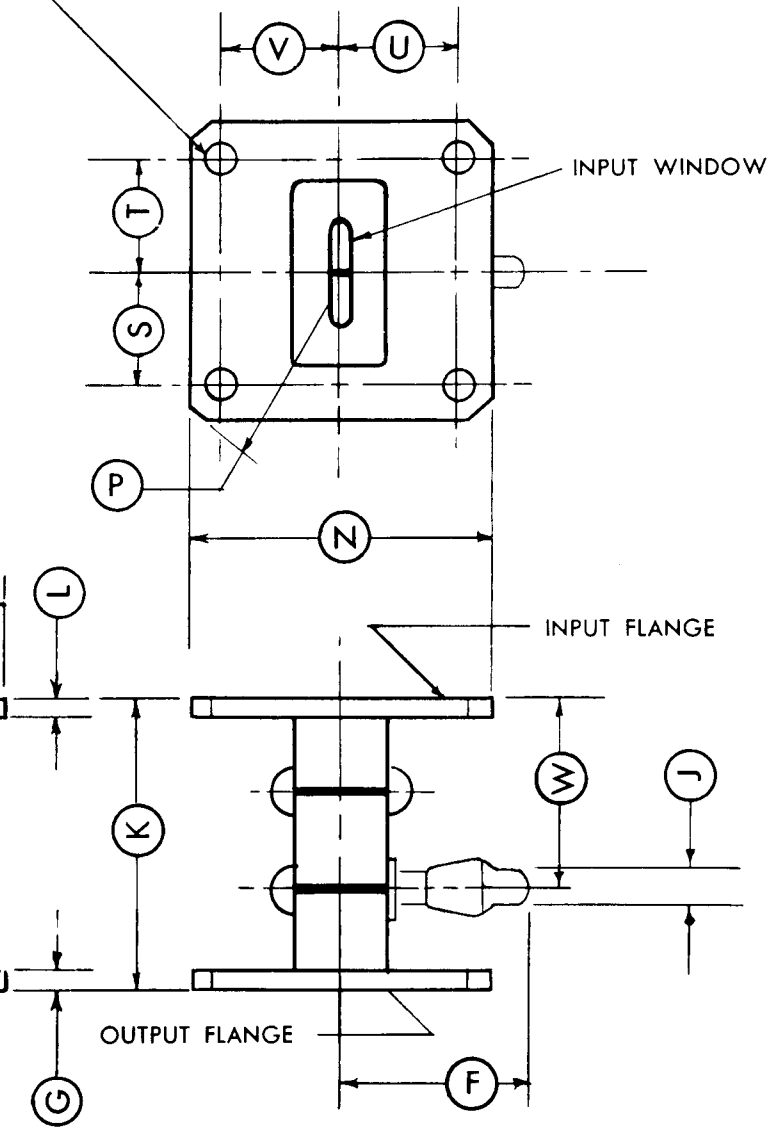
End flanges are parallel planes flat within 0.006 when measured within the area between concentric circles of  $1\frac{3}{8}$  and  $1\frac{5}{8}$ . The area outside of the  $1\frac{5}{8}$  circle may measure less than the minimum measured dimension by an additional 0.004.

**NOTE 3.**

Ignitor terminal to fall within area defined by a reference circle of  $\frac{3}{8}$  max. dia. located 1.028 nom. from outside edge of input flange.

**NOTE 1**

EXHAUST TUBE MUST NOT EXTEND BEYOND FLANGES MORE THAN  $\frac{1}{4}$ ".



| REFERENCE | DIMENSIONS              |
|-----------|-------------------------|
| A         | *8-32 NC-2 TAP, 4-HOLES |
| B         | .610 ±.002              |
| C         | .610 ±.002              |
| D         | .640 ±.002              |
| E         | .640 ±.002              |
| F         | $1\frac{3}{8}$ MAX.     |
| G         | .093 ±.010              |
| J         | .250                    |
| K         | 1.555 ±.010             |
| L         | .093 ±.010              |
| M         | $1\frac{5}{8}$          |
| N         | $1\frac{5}{8}$          |
| P         | $1\frac{1}{16}$ R.      |
| S         | .610 ±.002              |
| T         | .610 ±.002              |
| U         | .640 ±.002              |
| V         | .640 ±.002              |
| W         | 1.028 NOM.              |

