SYLVANIA

# engineering data service

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# 1B63B

## MECHANICAL DATA

Ambient Temperature Range (Non-Operative) . . . –40 to +100 Degrees C
Mounting . . . . . Between Standard Rectangular R F
Choke Flanges in 0.400″ x 0.900″ I D x 0.050″ Wall Waveguide

## ELECTRICAL DATA

Frequency Range . . . . . 8490 to 9578 mc

## IGNITOR CHARACTERISTICS

Ignitor Open Circuit Voltage . . . . . –650 Volts d c Mir
Ignitor Current . . . . . 100 μa
Ignitor Voltage Drop . . . . . 200 to 375 Volts

## LOW POWER LEVEL UNFIRED CHARACTERISTICS

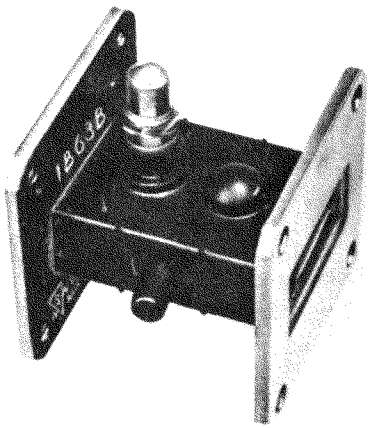
Insertion Loss . . . . . 0.7 db Max.
Ignitor Interaction . . . . . 0.2 db Max.

## HIGH POWER LEVEL FIRED CHARACTERISTICS

(Flat) Leakage Power (40 KW) . . . . . 40 mw Max.
Spike Leakage Energy (40 KW) . . . . . 0.2 erg
Recovery Time (200 KW) . . . . . 10 μsec at 3 db
Arc Loss (4 KW) . . . . . 0.8 db Max.
Position of VSW Minimum . . . . . 0.065 ± .007 Inch

## QUICK REFERENCE DATA

The Sylvania Type 1B63B is a long life fixed-tuned broad band transmit-receive tube which is equivalent to and interchangeable with the Type 1B63A. It is designed for use with the Sylvania Type 1B35A or the 1B37A. The 1B63B is rated for 1000 hours life as against the 500-hour rating of the 1B63A.




SYLVANIA ELECTRIC PRODUCTS INC.
ELECTRONICS DIVISION
WOBURN, MASS.

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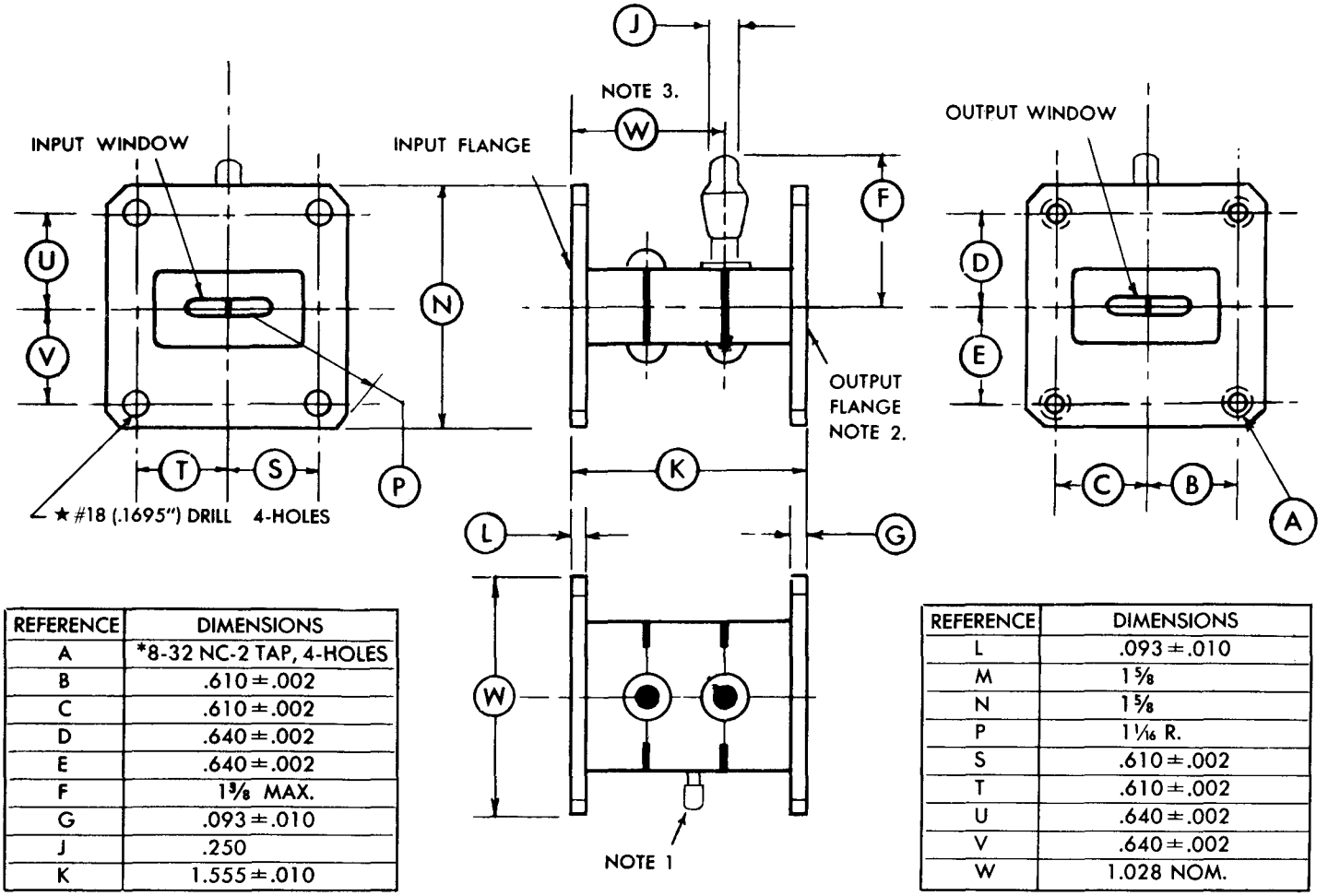


| REFERENCE | DIMENSIONS |
|---|---|
| A | *8-32 NC-2 TAP, 4-HOLES |
| B | .610 ± .002 |
| C | .610 ± .002 |
| D | .640 ± .002 |
| E | .640 ± .002 |
| F | 1 3/8 MAX. |
| G | .093 ± .010 |
| J | .250 |
| K | 1.555 ± .010 |

| REFERENCE | DIMENSIONS |
|---|---|
| L | .093 ± .010 |
| M | 1 5/8 |
| N | 1 5/8 |
| P | 1 1/16 R. |
| S | .610 ± .002 |
| T | .610 ± .002 |
| U | .640 ± .002 |
| V | .640 ± .002 |
| W | 1.028 NOM. |

## DIAGRAM NOTES:

1. *The exhaust tube must not extend beyond the flanges more than 1/4 inch.*
2. *The end flanges are parallel planes flat within 0.006" when measured within the area between concentric circles of 1-3/16" and 1 3/8". The area outside of the 1 5/8" circle may measure less than the minimum measured dimension by an additional 0.004".*
3. *The ignitor terminal falls within an area defined by a reference circle of 3/8" max. diameter located 1.028" nom. from the outside edge of the input flange.*