



engineering data service

TENTATIVE DATA

SYLVANIA

6164

Formerly TR429

MECHANICAL DATA

Dimensions	Per Outline
Mounting Position	Any
Number of Ignitors	One
Ambient Temperature Range (non-operating)	-40 to +100°C

ELECTRICAL DATA

RATINGS

Transmitter Peak Power (min.)	4 KW
Ignitor Open Circuit Supply Voltage (min.)	-650 Vdc

GENERAL DATA

Operational Band (1)	8500 to 9600 mc
Spike Leakage Energy (mas.) (2)	0.15 ergs
Flat Leakage Power (max.)	30 mW
Insertion Loss at 9000 mc and Zero ignitor current (max.)	0.7 db
Ignitor Interaction at 9000 mc and 100 μAdc ignitor current (max.)	0.3 db
Ignitor Voltage Drop at 100 μAdc ignitor current	-200 to -375 Vdc
Recovery Time (max.) (3)	10 μsec.
Arc Power Loss (max.) (4)	0.8 db
Life (min.)	500 hours

APPLICATION DATA

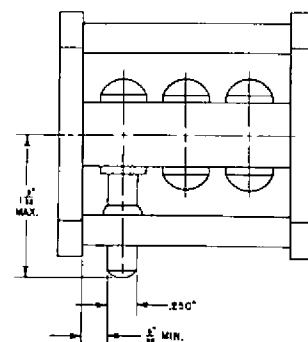
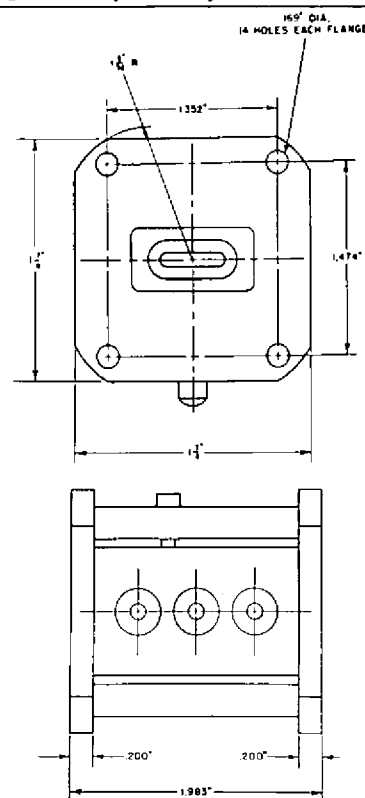
The Sylvania Type 6164 is designed for use in amplitude sensitive monopulse systems employing RG 51/U waveguide in the RF section. The use of this tube eliminates extraneous amplitude and phase effects in the determination of target position.

NOTES

- (1) The 6164 is tuned so that no tube will differ from any other tube in vector reflection coefficient and phase of transmission by more than 4db SWR and 10 degrees respectively.
- (2) Tested at $F=9000$ Mc; $P_o=40$ KW; $t_p=1.0 \pm .15$ μsec. and $0.5 \pm .15$ μsec.; $prr=1000$ pps; $I_i=100$ μAdc.
- (3) Tested at $F=9000$ Mc; $P_o=200$ KW; $t_p=1.0 \pm .15$ μsec.; $prr=1000$ pps; $I_i=100$ μAdc. The loss of signal in the tube at the specified time after the transmitter pulse shall not be greater than 3.0 db in excess of the loss at 800 to 1000 μsec. after the pulse.
- (4) Tested at $P_o=4$ KW and duty cycle of .001

QUICK REFERENCE DATA

The Sylvania Type 6164 is an integral cavity broad-band transmit-receive tube designed to operate from 8500 to 9600 Mc. Tuning is such that no two tubes differ in vector reflection coefficient or phase of transmission by more than 4 db SWR or 10 degrees respectively.



Note: Exhaust tubulation not to extend beyond flange more than $\frac{1}{4}$ "

from JETEC release #1390, Dec. 27, 1954