



2K35 KLYSTRON
VELOCITY MODULATION CASCADE AMPLIFIER

General Characteristics

The type 2K35 klystron is a super high frequency velocity modulation tube designed for use as a cascade amplifier. The tube has three resonant cavities which are integral parts of the tube structure. Each of the resonant cavities has a coaxial terminal which is designed for use with Sperry SKL (3/8-32 thread) fittings. The electron gun is of the electrostatically focused type which requires no external focusing fields.

Electrical Data

Heater Voltage (ac or dc)	6.3 volts
Heater Current	1.5 amperes
Maximum Frequency	3330 Mc/sec
Minimum Frequency	2730 Mc/sec

Maximum Ratings (C.W. Operation)

For operation at the maximum ratings of the tube, air cooling of at least 50 cubic feet per minute is recommended. In any case, sufficient air cooling should be provided to keep the shell temperature below 100° Centigrade.

Beam Voltage	3000 volts
Beam Current	150 milliamperes



2K35 Klystron
Velocity Modulation Cascade Amplifier

Page 2

Shell Dissipation	450 watts
Control Electrode Voltage	0 to -200 volts (never positive)
Control Electrode Current	3 milliamperes
Heater-Cathode Voltage (Peak)	±45 volts
Shell (resonator and other parts) Temperature	100°C

Mechanical Information

Type of Cathode	Coated, Unipotential
Base	Shortened Medium Shell, Octal, 8-pin
Physical Specifications	(See outline drawing)
Base Connections	(See outline drawing)
Mounting Position	Any
Cooling Data	(See Maximum Ratings)

Typical Operation (C.W. Operation)

Frequency	3000	3000	Mc/sec
Heater Voltage	6.3	6.3	volts
Heater Current	1.5	1.5	amperes
Beam Voltage	1500	2625	volts
Beam Current	75	150	milliamperes
Control Electrode Voltage	0	0	volts

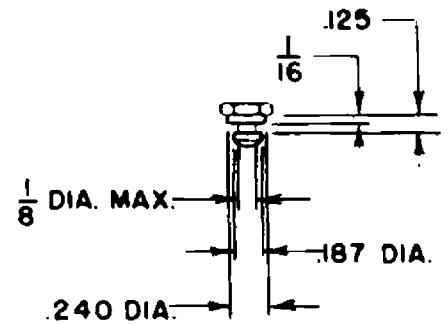
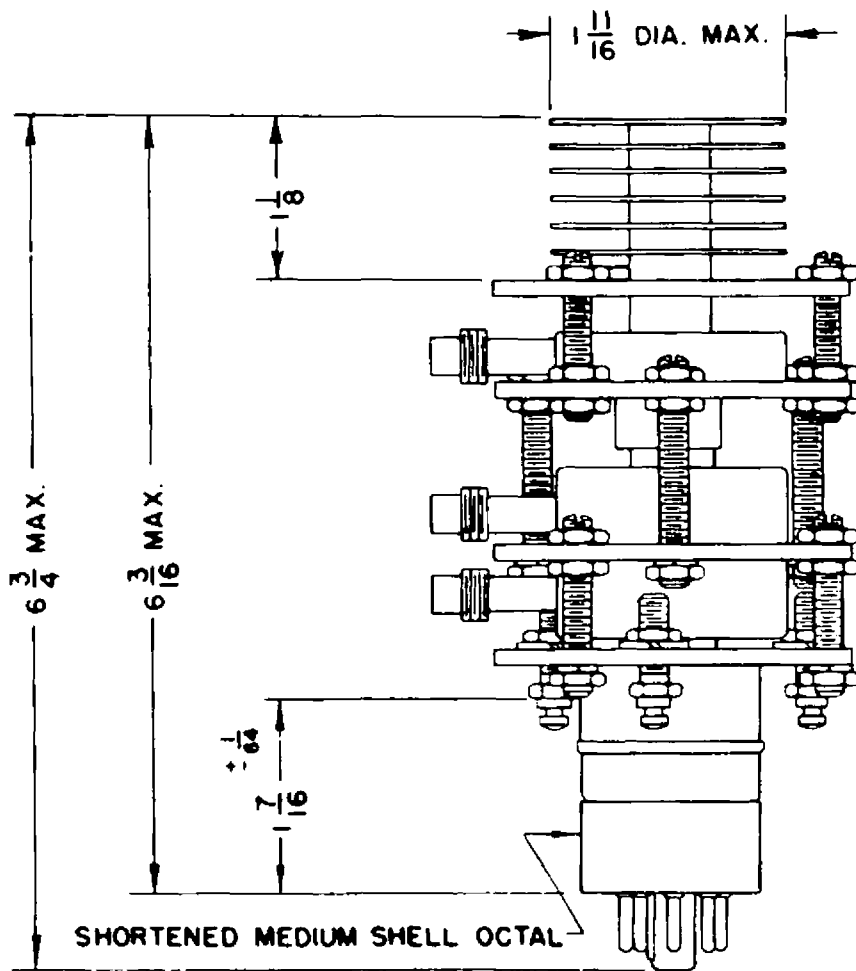


2K35 Klystron
Velocity Modulation Cascade Amplifier

Page 3

Heater-Cathode Voltage	0	0	volts
R-F Input Power (Drive)	5	30	milliwatts
R-F Output Power	5	30	watts
Power Gain	30	30	db
Efficiency	4.4	7.6	per cent

TYPE 2K35 SPERRY KLYSTRON

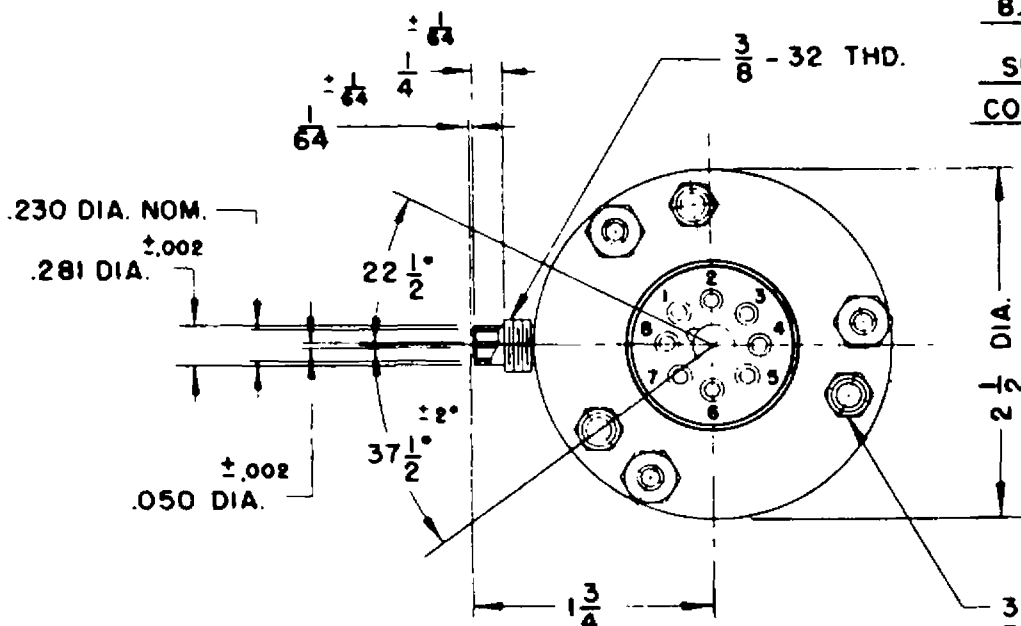


DETAIL OF MOUNTING PIN

BASE CONNECTIONS

1. I.C. (INTERNAL CONNECTION)
2. HEATER
3. I.C.
4. I.C.
5. CONTROL ELECTRODE
6. I.C.
7. HEATER
8. CATHODE

SHELL - BEAM ELECTRODE COAXIAL TERMINALS - R-F CONNECTIONS



ALL DIMENSIONS IN INCHES
NOMINAL UNLESS OTHERWISE NOTED

3 - MOUNTING PINS
EQUALLY SPACED
ON 2.093 DIA.