

**RADIO MANUFACTURERS ASSOCIATION  
ENGINEERING DEPARTMENT**



TYPE 3K27

RMA DATA BUREAU  
90 WEST STREET  
NEW YORK 6, N. Y.

REFLEX KLYSTRON

Release No. 589

July 2, 1947

sponsor:

Sperry Gyroscope Co., Inc.

General Characteristics

Ultra high frequency reflex klystron oscillator. Integral cavity with full range integral tuning lever designed to be used with a Model 14 tuner. Electrostatic focused electron gun requiring no external focusing fields.

Electrical Data

Heater Voltage (ac or dc)	6.3 volts
Heater Current	1.5 amperes
Maximum Frequency	960 Mc/sec
Minimum Frequency	750 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.

Resonator Voltage	1000 volts
Resonator current	90 milliamperes
Resonator Dissipation (Note 1)	80 watts
Control Electrode Voltage	-200 to +20 volts
Control Electrode Current	4 milliamperes
Reflector Voltage	-1500 volts
Reflector Current	2 milliamperes
Heater-Cathode Voltage (Peak)	+ 45 volts
Shell (resonator and other parts) Temperature	100° C.

Mechanical Information

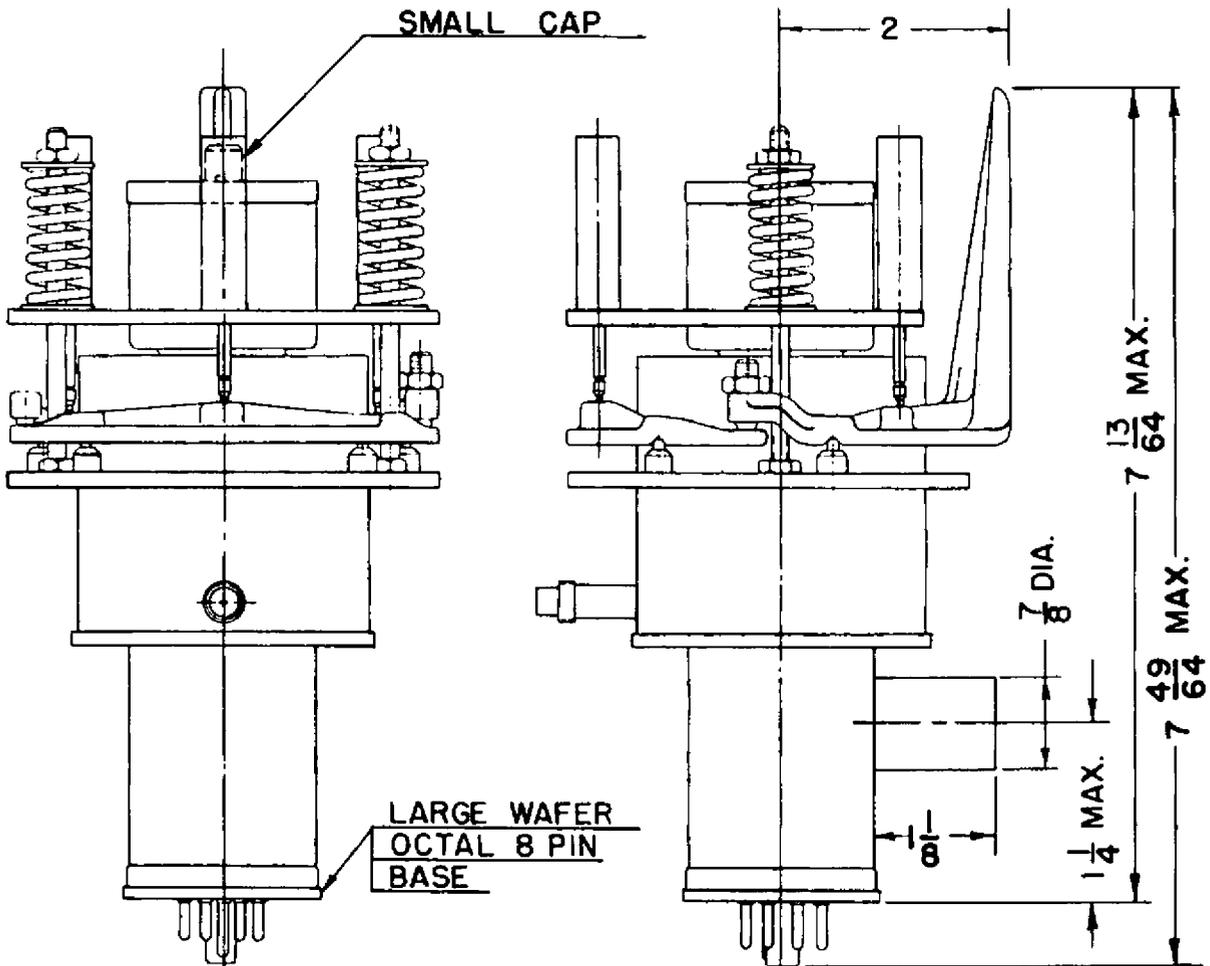
Type of Cathode	Coated, Unipotential
Base	Large wafer octal, 8-pin
Physical Specifications	(See outline drawing)
Base connections	(See outline drawing)
Mounting position	Any
Cooling Data	(See Note 1)

Typical Operation (C. W. Operation)

Frequency	960 Mc/sec
Resonator Voltage	1000 volts
Resonator Current	60 milliamperes
Reflector Voltage (adjusted for maximum output power)	1300 volts
Reflector Current	0 milliamperes
Control Electrode Voltage	0 volts
Control Electrode Current	0 milliamperes
Output Power	1 to 3 watts
Efficiency	1.6 to 5%
Bandwidth between 3 db points	3 to 5 Mc/sec

( Manufacturer's Designation SHL-1 )

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**BASE CONNECTIONS**

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

**CAP - REFLECTOR**  
**SHELL - RESONATOR**

**R.M.A. TYPE**  
**3K27**

ALL DIMENSIONS IN INCHES  
 NOMINAL UNLESS OTHERWISE NOTED.

