

OBJECTIVE TECHNICAL INFORMATION

These ratings represent the design objective for this product. Refer to the Preliminary Technical Information sheet for ratings currently achieved in the progression towards design objectives. If PTI sheets do not exist, consult your local Tube Department Regional Sales Office.

DEVELOPMENTAL TYPE

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This technical information is proprietary and is furnished only as a service to customers.

ZP-1057 TRIODE

Internal Feedback for CW Oscillator Service Grounded-Grid Operation

Forced-Air Cooled Metal and Ceramia

The ZP-1057 is a forced-air cooled triode especially designed for CW oscillator service through approximately 2000 megacycles. This tube is particularly well suited for use in special applications such as high level microwave signal generators operating over an extremely wide frequency range.

The tube features internal feedback which eliminates the need for the complicated external circuit arrangements normally required in oscillator service. This special feature greatly simplifies cavity design, construction and operation, Particularly where very broad frequency coverage is required.

Other features include small size metal and ceramic construction, a high efficiency radiator, and an oxide-coated cathode with inherent long life.

ELECTRICAL	Minimum	Bogey	Maximum	n
Heater Voltage*	3.5 1	6.3 3.8 -	4.0	Volts Amperes Minute
Input	-	15.5	-	щf
Output	•	6.5	-	щf
MECHANI CAL				
Mounting Position - Any Net Weight, approximately			5 3/4	Ounces
THERMAL				
Cooling - Forced Air Through Radiator, at Sea Level				
Plate Dissipation	ture,		300	Watts
minimum			7	Cubic Feet per Minute
Static Pressure, approximate			0.7	Inches-Water
Radiator Hub Temperature, at Point Adjacent to Anode Seal			250	C
Ceramic Temperature at Any Point, maxim	מינומ		200	
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CW RADIO-FREQUENCY OSCILLATOR - CLASS C

Maximum Ratings

DC Plate Voltage	1750	Volts
DC Plate Current	0.300	Amperes
DC Grid Voltage	- 150	Volts
DC Grid Current	0.050	Amperes
Plate Dissipation	300	Watts

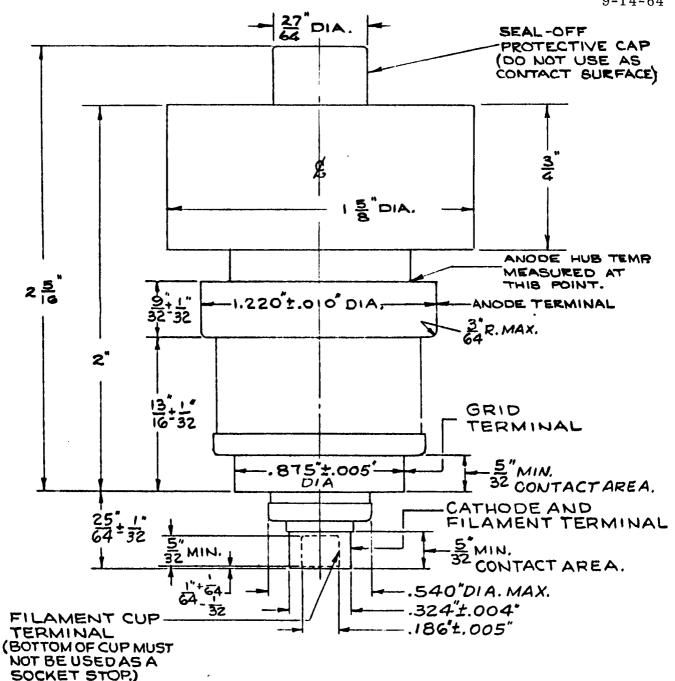
Typical Operation

Grounded-Grid Circuit at 1200 Megacycles, 3/4/2 Output

DC Plate Voltage	1500	Volts
DC Plate Current	0.275	Amperes
DC Grid Voltage	-125	Volts
DC Grid Current	0.045	Amperes
Power Output, approximate (useful)	200	Watts

^{*} Because the temperature of the cathode is increased by back bombardment of electrons at UHF, required heater voltage for optimum life decreases with increasing frequency. The amount of heater voltage reduction is dependent on operating conditions. However, this voltage should not be less than 5.5 volts.

Forced-air cooling to be provided before and during the application of any voltages to limit the anode hub temperature to the value specified.



TUBE DEPARTMENT GENERAL ELECTRIC

Owensboro, Kentucky