

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 Ceramic

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	
Heater Voltage*	-	6.3	-	Volts
Heater Current	3.5	3.8	4.0	Amperes
Cathode Heating Time	1	-	-	Minute
Direct Interelectrode Capacitances				
Input	-	15.5	-	μ mf
Output	-	6.5	-	μ mf

MECHANICAL

Mounting Position - Any
Net Weight, approximately 5 3/4 Ounces

THERMAL

Cooling - Forced Air
Through Radiator, at Sea Level
 Plate Dissipation 300 Watts
 Air Flow, 45 C Incoming Air Temperature,
 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, maximum 200 C

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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

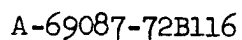
Typical Operation

Grounded-Grid Circuit at 1200 Megacycles, $3/4\lambda$ 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.

② 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