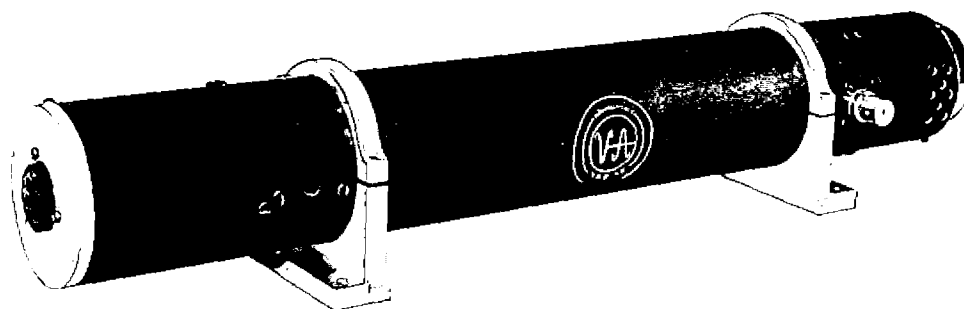




DESCRIPTION

The VA-128/8232 is a traveling wave pulse amplifier which delivers 7 to 9 kilowatts peak output between 2.7 and 3.6 gigacycles under saturation

conditions. It is a broadband driver for multi-megawatt amplifiers. The tube includes a control grid to permit low voltage beam switching.

FEATURES

Periodic Permanent Magnet Focusing—
needs no magnet power supply.

Broadband—High Power—
amplifies pulses within its 900-Mc bandwidth
without adjustment for change of frequency.

Control Grid—
permits low voltage beam pulsing.

Forced Air Cooled—
permits compact equipment design; no heat ex-
changer or interconnecting hoses required.

GENERAL CHARACTERISTICS¹

ELECTRICAL

Frequency Coverage	2.7 to 3.6 Gc
Beam Voltage	14.5 kVdc
Peak Beam Current	3.0 a
Heater Voltage	7.5 V
Heater Current, at 7.5 volts.....	2.0 A
Heater Warm-up Time, minimum.....	3 min
Capacitance, grid to all other electrodes..	25 pf
Focusing.....	Periodic Permanent Magnet

PHYSICAL

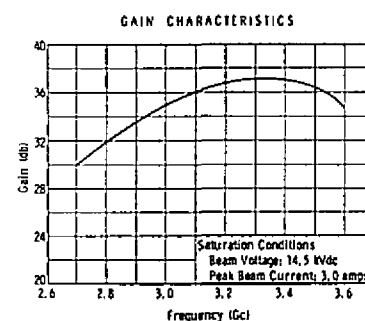
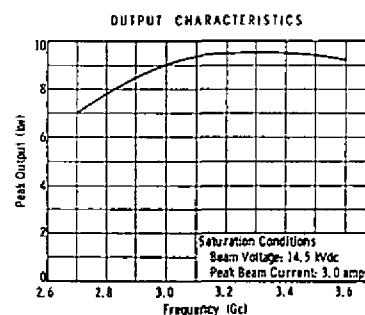
Dimensions	See Outline Drawing
Weight, approximate.....	15 lb
Mounting Position	Any
Connectors	See Outline Drawing
Cooling	Forced Air
Air Flow, minimum	15 cfm
Pressure Head, at 15 cfm.....	1.5" H ₂ O
Operating Ambient Temperature Range	-20 to +40°C

OPERATING CONDITIONS AND RATINGS

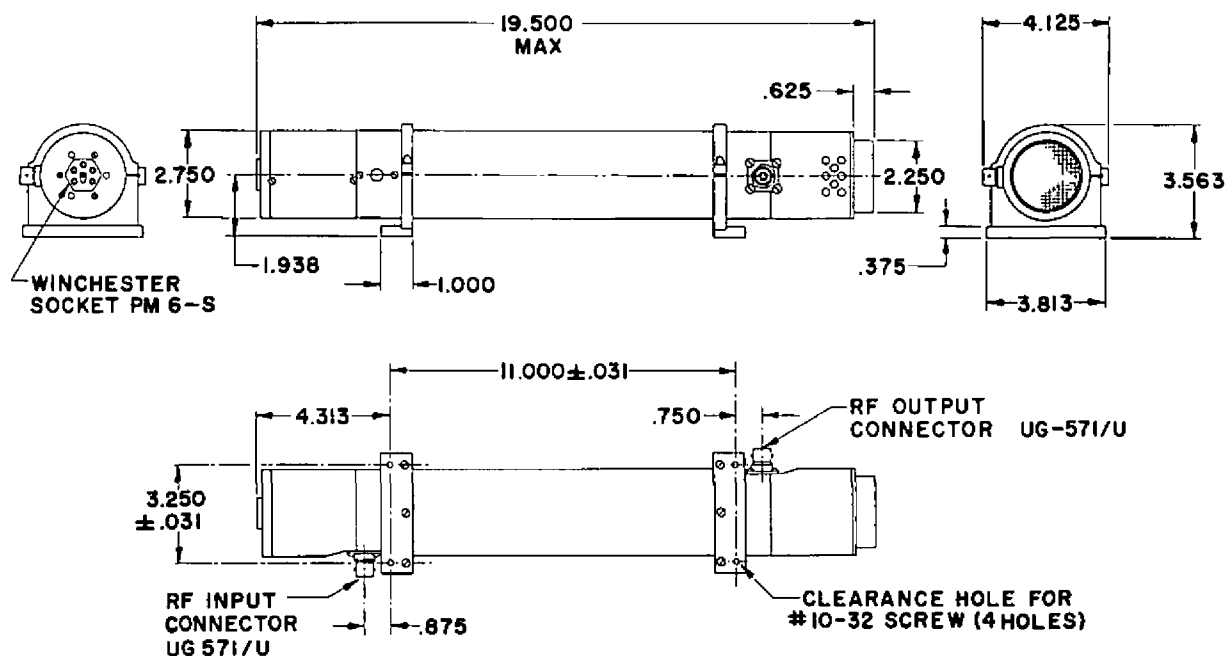
	Typical Operation ¹	Maximum Ratings ²	
Frequency Coverage.....	See Curve	- -	Gc
Peak Output, saturation.....	See Curve	- -	kw
Average Output, saturation.....	20	- -	W
Gain.....	See Curve	- -	db
Drive Power.....	- -	15	W
Beam Voltage.....	14.5	18	kVdc
Peak Beam Current.....	3.0	4.0	a
Grid Bias Voltage.....	-150	-300	Vdc
Peak Grid Voltage, above cathode.....	550	700	v
Duty Cycle.....	0.002	0.003	
Pulse Duration.....	10	15	μsec
Heater Voltage.....	7.5	8.0	V
Heater Current.....	2.0	- -	A
Heater Surge Current.....	- -	5.0	A
Load VSWR.....	1.2:1	2.0:1	

CHARACTERISTIC CURVES

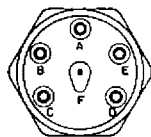
Typical performance values



OUTLINE DRAWING



DIMENSIONS ARE IN INCHES.



SOCKET CONNECTIONS	
A	CATHODE
B	NO CONNECTION
C	HEATER-CATHODE
D	HEATER
E	NO CONNECTION
F	GRID

NOTES:

1. Characteristics and operating values are based on performance tests. They may change as additional data are obtained.
2. Ratings should not be exceeded under continuous or transient

conditions. A single rating may be the limitation and simultaneous operation at more than one rating may not be possible. Equipment design should limit voltage and environmental variations so that ratings will never be exceeded.