

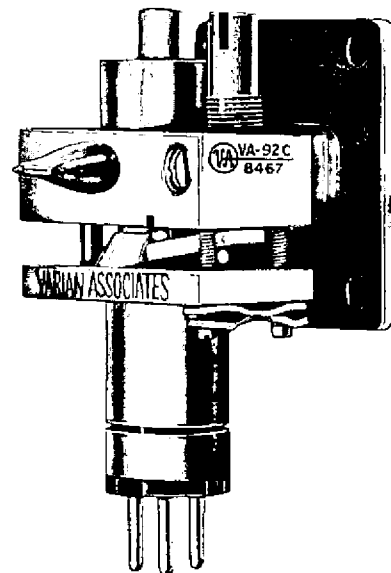
DESCRIPTION

The VA-92C/8467 is a tunable reflex klystron which delivers 140 mW or more in the frequency range from 12.4 to 14.5 gigacycles. The tube is an excellent oscillator for radar, test equipment, and bench oscillator applications.

FEATURES

- Slow tuning rate
- Good frequency stability
- Free of plasma ion oscillations
- Linear reflector voltage characteristics

JEDEC TYPE 8467



GENERAL CHARACTERISTICS¹

ELECTRICAL

Frequency Range	12.4 to 14.5 Gc
Output, minimum,	
at 600 beam volts	140 mW
at 300 beam volts	20 mW
Beam Voltage	600 Vdc
Beam Current	62 mA _{dc}
Reflector Voltage ²	-180 to -340 Vdc
Heater Voltage	6.3 V
Heater Current, typical	0.45 A

PHYSICAL

Dimensions	See Outline Drawing
Weight, approximate	7 oz
Mounting Position	Any
Cathode	Oxide coated, unipotential
Cooling ³	Forced Air
Air Flow, minimum	1.1 lb/min
Tuner ⁴	Single Screw
RF Output	Mates with UG-419/U, or equivalent

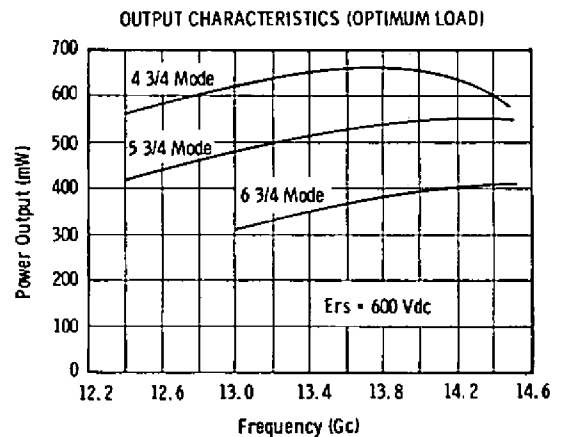
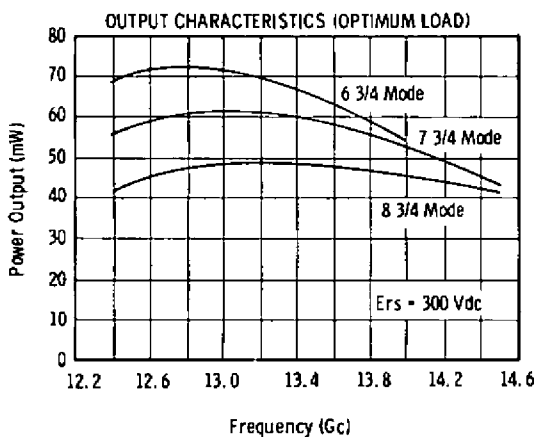
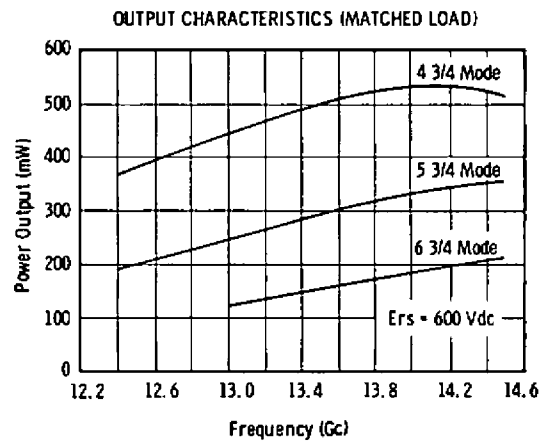
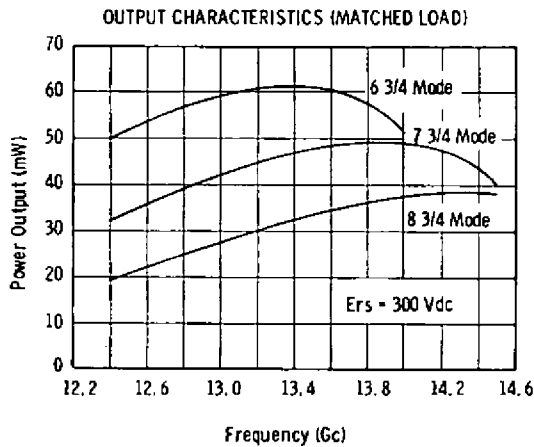
Read Operating Instructions before installing tube.

OPERATING CONDITIONS AND RATINGS

	Typical Operation ¹		Range Values for Equipment Design ⁸		Absolute Ratings ⁵		
	Min	Max	Min	Max	Min	Max	
Beam Voltage — 600 Vdc							
Frequency	12.4	14.5	12.4	14.5	--	--	Gc
Output Power, matched load	197	358	140	--	--	--	mW
Output Power, optimum load ⁶	420	552	--	--	--	--	mW
Beam Voltage	600	600	--	--	--	625	Vdc
Beam Current	62	62	--	66	--	--	mAdc
Electronic Tuning Range ⁷	78	65	50	--	--	--	Mc
Reflector Voltage	-179	-336	-140	-400	-20	-1000	Vdc
Beam Voltage — 300 Vdc							
Frequency	12.4	14.5	12.4	14.5	--	--	Gc
Output Power, matched load	32	40	20	--	--	--	mW
Output Power, optimum load ⁶	56	43	--	--	--	--	mW
Beam Voltage	300	300	--	--	--	625	Vdc
Beam Current	24	24	--	35	--	--	mAdc
Electronic Tuning Range ⁷	52	28	20	--	--	--	Mc
Reflector Voltage	-106	-193	-85	-220	-20	-1000	Vdc
Heater Voltage	6.3	6.3	--	--	5.7	7.0	V
Tuner Plate Temperature ⁹	--	--	--	--	--	160	°C

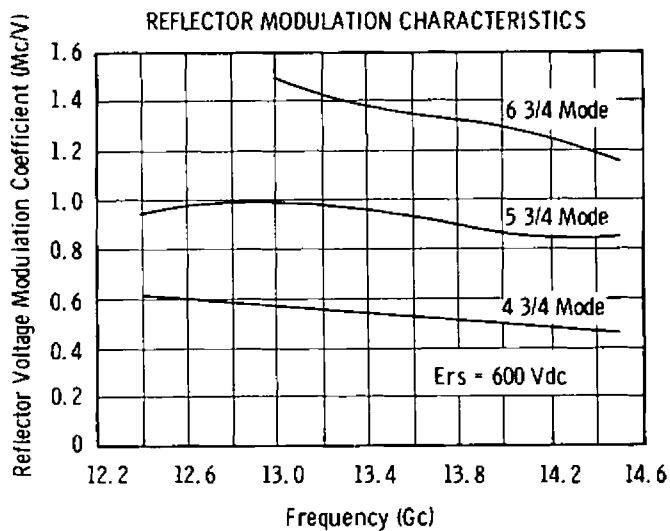
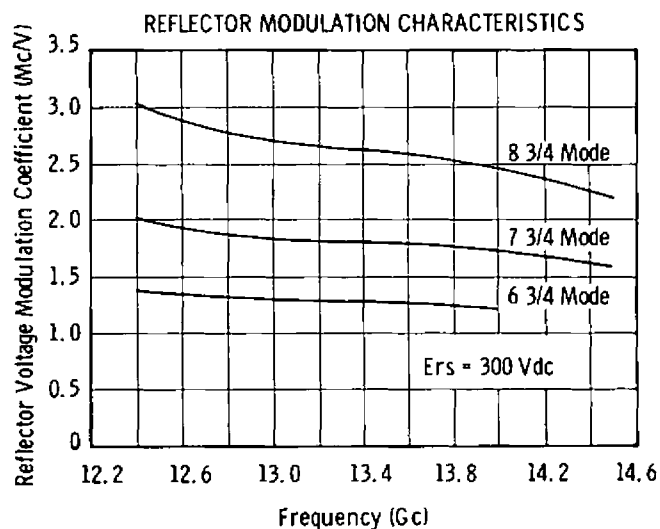
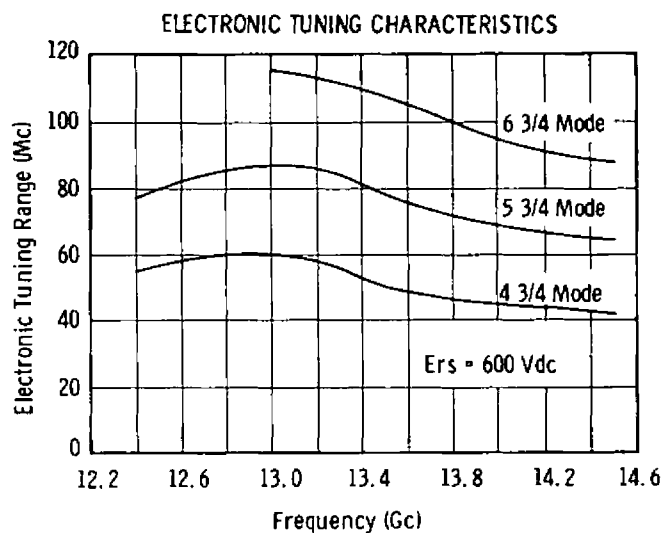
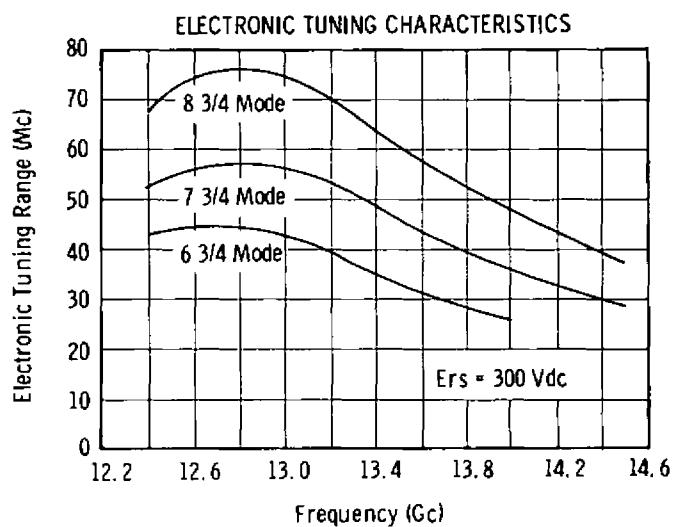
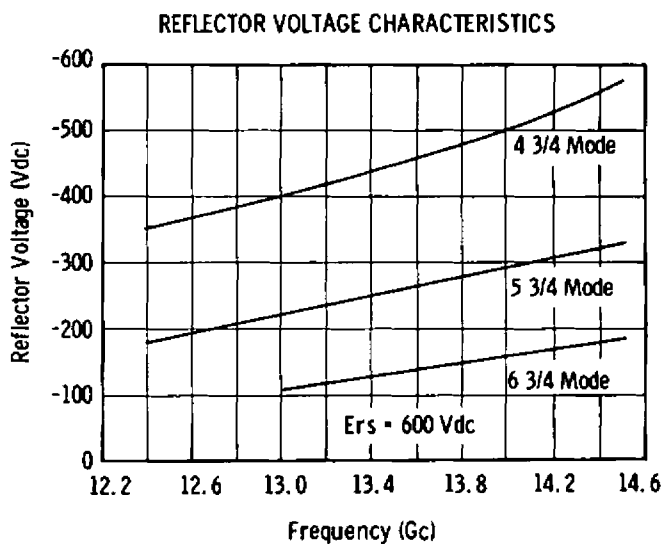
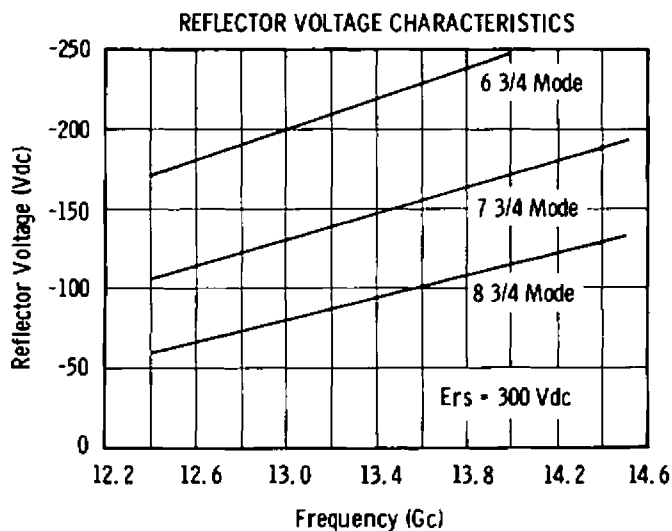
CHARACTERISTIC CURVES

Typical performance values

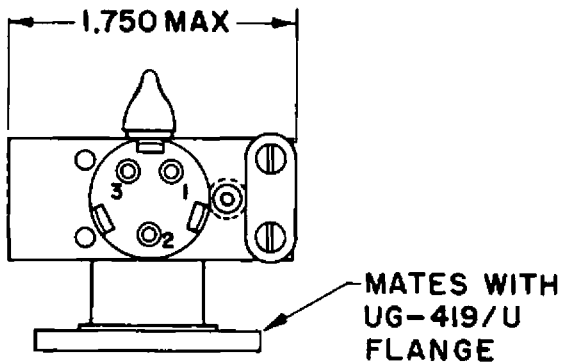
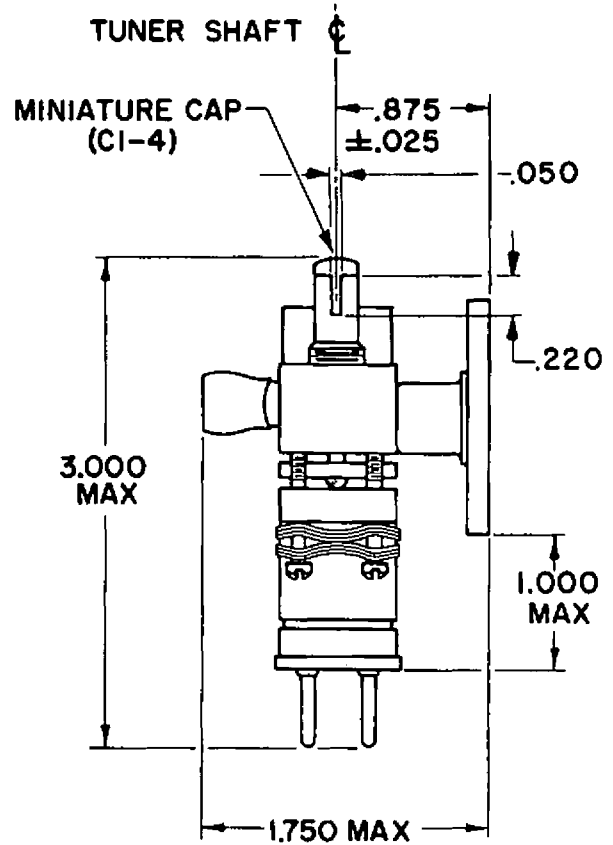
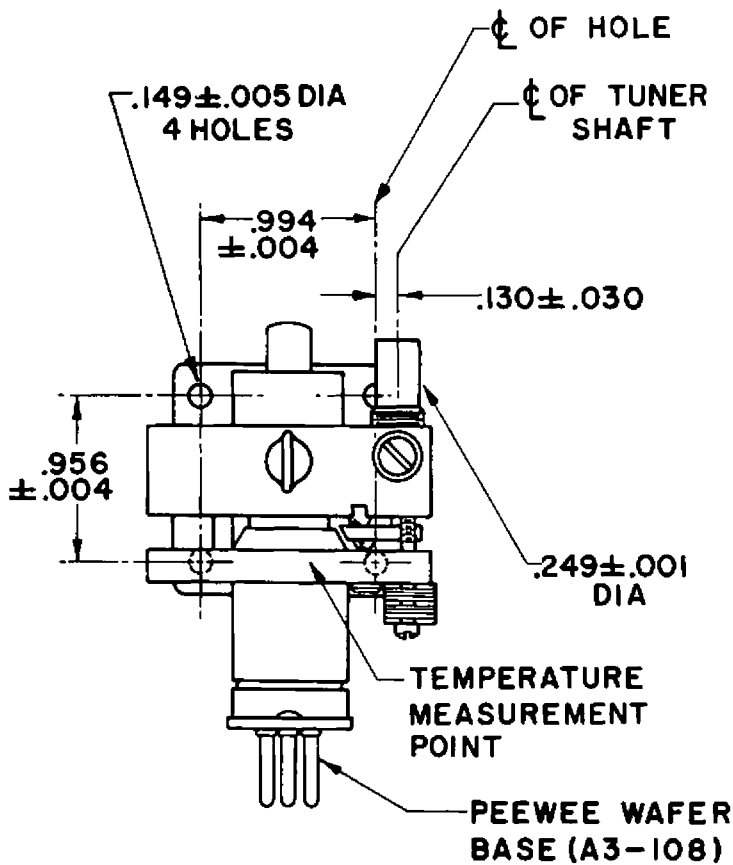


CHARACTERISTIC CURVES

Typical performance values



OUTLINE DRAWING



PIN CONNECTIONS	
⊕	PIN 1 HEATER
⊕	PIN 2 CATHODE
	PIN 3 HEATER
	CAP REFLECTOR

⊕ INTERNALLY CONNECTED

DIMENSIONS ARE IN INCHES.

NOTES:

1. Characteristics and operating values are based on performance tests. Test conditions and performance limits are given on the tube Specification sheet.
2. Reflector must always be negative with respect to the cathode by at least 20 volts.
3. Forced-air cooling of 1.1 lb/min is required when beam input power exceeds 10 watts.
4. Approximately $2\frac{1}{2}$ turns cover frequency range. Mechanical stops are provided.
5. 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 the ratings will never be exceeded.

6. Load VSWR adjusted for maximum output power.
7. Measured between half-power points.
8. These values are acceptance limits for the beam voltages shown. Equipment design should allow for these variations.
9. Measured at the point indicated on the Outline Drawing.