QUICK HEAT TETRODE



NEW PRODUCT BULLETIN

OBJECTIVE DATA

The EIMAC X-2099 is a compact, quick heat tetrode designed for push-to-talk mobile and airborne applications. The tube warms up to 70% peak current or 50% RF power output in 250 milliseconds. The X-2099 can be driven by low-level solid state up to its rated plate dissipation of 500 watts. The tube is air cooled, ceramic-metal construction.

The data supplied in this sheet is for guidance only. Before establishing final design specifications contact Product Manager, Power Grid Division, EIMAC Division of Varian.



GENERAL CHARACTERISTICS

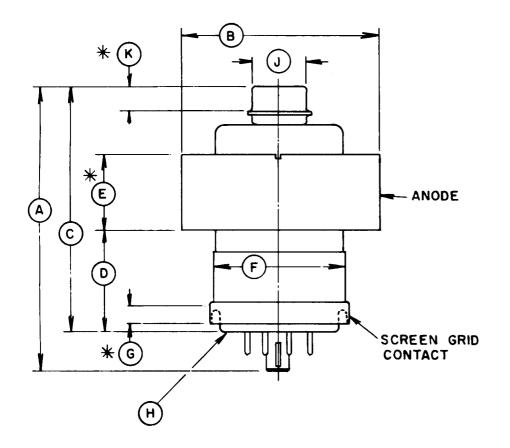
ELECTRICAL		U
Cathode: Oxide Coated, Uni-Potential		
Heating Time, nominal (see curves)		. 250 ms
Heater:		
Voltage, nominal (see curves)		. 2.5 V
Current, nominal (Inrush current approximately twice operating cu	urrent) ·	. 10.5 A
Direct Interelectrode Capacitances, grounded cathode		
Input		
Output		
Feedback		. 0.14 pF
Direct Interelectrode Capacitances, grounded grid		22.0 -77
Input		
Output		
Feedback		. 0.02 pF
MECHANICAL		
Base		Special 9-pin
Dase		opecial 3 pin
Maximum Operating Temperatures:		
Ceramic-to-Metal Seals		250°C
Anode Core		
Nominal Dimensions:		
Height		3.50 in.
Seated Height		
Diameter		
Cooling	• • • •	. Forced Air
Net Weight		8 ozs.

OPERATING CHARACTERISTICS

OPERATING CHARACTERISTICS (cont.)

Class AB ₁ Radio Frequency Linear Power Amplifier	PEP or CW Plate Output Power 4	400 500 W
DC Plate Voltage 1600 2600 V	Third Order Intermodulation Distortion	-36 -38 dB
DC Screen Voltage 200 250 V	Fifth Order Intermodulation Distortion	-54 -46 dB
DC Grid Voltage24 -34 V	Filament Voltage	2.5 2.5 V
Zero Signal Plate Current 250 225 mA	Filament Current	0.0 10.0 A
Max Signal DC Plate Current 455 370 mA	Warm up time to half power 2	250 250 ms

PINS 1,3,5,7 — CONTROL GRID PINS 2,4,6,8 — HEATER CATHODE CENTER PIN — HEATER



DIMENSIONS IN INCHES

ом. /2			
/2			
H BASE: 88-236			
DESIGNATION)			

NOTES:

- I. (*) CONTACT SURFACE
- 2 REFERENCE DIMENSIONS
 ARE FOR INFORMATION ONLY
 & ARE NOT REQ'D FOR
 INSPECTION PURPOSES.

