

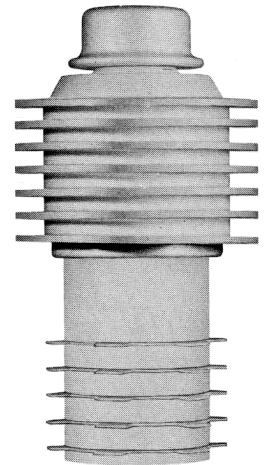
E I M A C
 Division of Varian
 S A N C A R L O S
 C A L I F O R N I A

4CX125C
4CX125F

RADIAL-BEAM
POWER TETRODES

The EIMAC 4CX125C and 4CX125F are horizontally-finned versions of the 4CX300A. These tubes possess the same rugged internal features of the 4CX300A and are quite free of mechanical noise under severe shock and vibration conditions.

The horizontal fins used on these tubes result in a lighter and smaller tube than the 4CX300A. Transverse cooling air-flow is required to attain the 125 watt nominal plate dissipation rating.



GENERAL CHARACTERISTICS

ELECTRICAL

	Min.	Nom.	Max.	
Cathode: Oxide-coated, Unipotential				
Heating Time	30	60		seconds
Cathode-to-heater Potential			± 150	volts
Heater: Voltage: 4CX125C		6.0		volts
4CX125F		26.5		volts
Current: 4CX125C	2.6		3.1	amperes
4CX125F	0.6		0.7	amperes
Amplification Factor (Grid-Screen)	4.0		5.6	
Transconductance ($I_b = 200$ Ma)		12,000		umhos
Frequency for Maximum Ratings			500	MHz

Interelectrode Capacitances, Grounded Cathode:

	Min.	Max.	
Input	25.0	33.0	pF
Output	3.5	4.5	pF
Feedback		0.06	pF

MECHANICAL

Base	Special, breechblock, terminal surfaces
Socket	EIMAC SK-700 series
Maximum Operating Temperatures:	
Anode Core	250° C
Ceramic-to-Metal Seals	250° C
Operating Position	Any
Cooling	Forced air
Net Weight	3.5 ounces
Shipping Weight (Approximate)	1 pound

MAXIMUM RATINGS

	Class-C Plate Mod	Class-C Teleg or FM	Class-AB Audio or SSB	
DC Plate Voltage	1500	2000	2000	volts
DC Screen Voltage	300	300	400	volts
DC Grid Voltage	- 250	- 250	...	volts
DC Plate Current	200	250	250	ma
Plate Dissipation	83	125	125	watts
Screen Dissipation	12	12	12	watts
Grid Dissipation	2	2	2	watts

Note: See 4CX300A data sheet for characteristic curves and typical operating conditions.

TYPICAL OPERATION

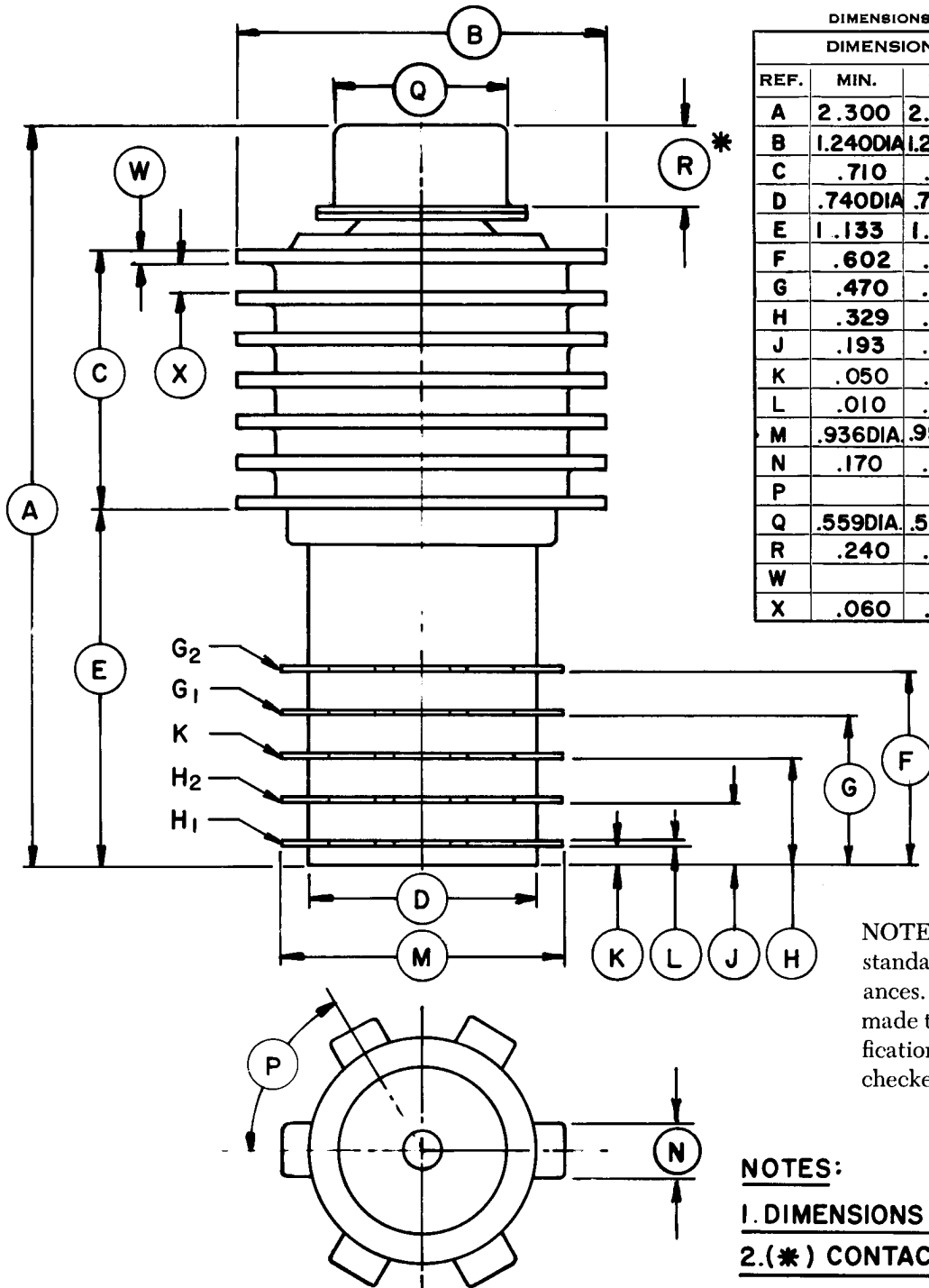
RF Amplifier (excluding circuit losses)	DC Plate Voltage (Volts)	Driving Power (Watts)	Input Power (Watts)	Output Power (Watts)
Class-C Telephony or FM Telephony	2000	3.0	500	390
Plate-Modulated Telephony (Carrier)	1500	2.0	300	235
Class-AB ₁ Linear Amplifier	2000	0	315	205



APPLICATION

Cooling: The 4CX125C and 4CX125F are intended for use where transverse cooling air is desired. With the anode cooler installed in a duct of 1" x 1½" cross section, approximately 8 cfm of air is required to maintain seal temperatures below

250° C. This presumes sea level operation with an ambient temperature of 25 ° or less. Sufficient air must be circulated around the base terminals to maintain the rated seal temperatures.



DIMENSIONS IN INCHES
DIMENSIONAL DATA

REF.	MIN.	MAX.	NOM.
A	2.300	2.500	
B	1.240DIA	1.265DIA.	
C	.710	.790	
D	.740DIA	.770DIA	
E	1.133	1.195	
F	.602	.642	
G	.470	.500	
H	.329	.359	
J	.193	.213	
K	.050	.072	
L	.010	.020	
M	.936DIA	.956DIA.	
N	.170	.185	
P			60°
Q	.559DIA.	.573DIA.	
R	.240	.280	
W			.040
X	.060	.090	

NOTE: These dimensions reflect standard manufacturing tolerances. Where they are to be made the basis of purchase specifications, they should first be checked with the factory.

NOTES:

- 1. DIMENSIONS IN INCHES.
- 2. (*) CONTACT SURFACE