



EITEL-McCULLOUGH, INC.
SAN CARLOS · CALIFORNIA

TENTATIVE DATA
4CX250K
4CX250M
RADIAL-BEAM
POWER TETRODES

The Eimac 4CX250K and 4CX250M are compact radial-beam tetrodes with a maximum plate dissipation rating of 250 watts and a maximum input power rating of 500 watts. The 4CX250K and 4CX250M are of ceramic and metal construction and are recommended for use in equipments of new design. The tubes have identical ratings and characteristics except for heater voltages and currents.

GENERAL CHARACTERISTICS

ELECTRICAL

	Min.	Nom.	Max.	
Cathode: Oxide-coated, Unipotential				
Heating Time - - -	30	60		seconds
Cathode-to-heater Potential			±150	volts
Heater: Voltage: 4CX250K - - -		6.0		volts
4CX250M - - -		26.5		volts
Current: 4CX250K -	2.30		3.0	amperes
4CX250M -	0.53		0.68	amperes
Amplification Factor (Grid-Screen)	4.4		6.0	
Transconductance (I _b =200Ma) - - -		12,000		umhos
Frequency for Maximum Ratings - - -			500	mc
Interelectrode Capacitances, Grounded Cathode:				
Input - - - - -				Min. Max.
Output - - - - -				25.0 29.0 uuf
Feedback - - - - -				4.0 4.9 uuf
				- 0.05 uuf
Interelectrode Capacitances, Grounded Grid and Screen:				
Input - - - - -				14.5 19.0 uuf
Output - - - - -				4.0 4.9 uuf
Feedback - - - - -				- 0.01 uuf



MECHANICAL

Base - - - - -	-	-	-	-	-	-	-	-	Coaxial
Maximum Operating Temperatures:									
Anode Core -	-	-	-	-	-	-	-	-	250°C
Ceramic-to-Metal-Seals -	-	-	-	-	-	-	-	-	250°C
Operating Position - - - - -	-	-	-	-	-	-	-	-	Any
Cooling - - - - -	-	-	-	-	-	-	-	-	Forced Air
Net Weight - - - - -	-	-	-	-	-	-	-	-	4.6 ounces
Shipping Weight (Approximate) -	-	-	-	-	-	-	-	-	1 pound

MAXIMUM RATINGS

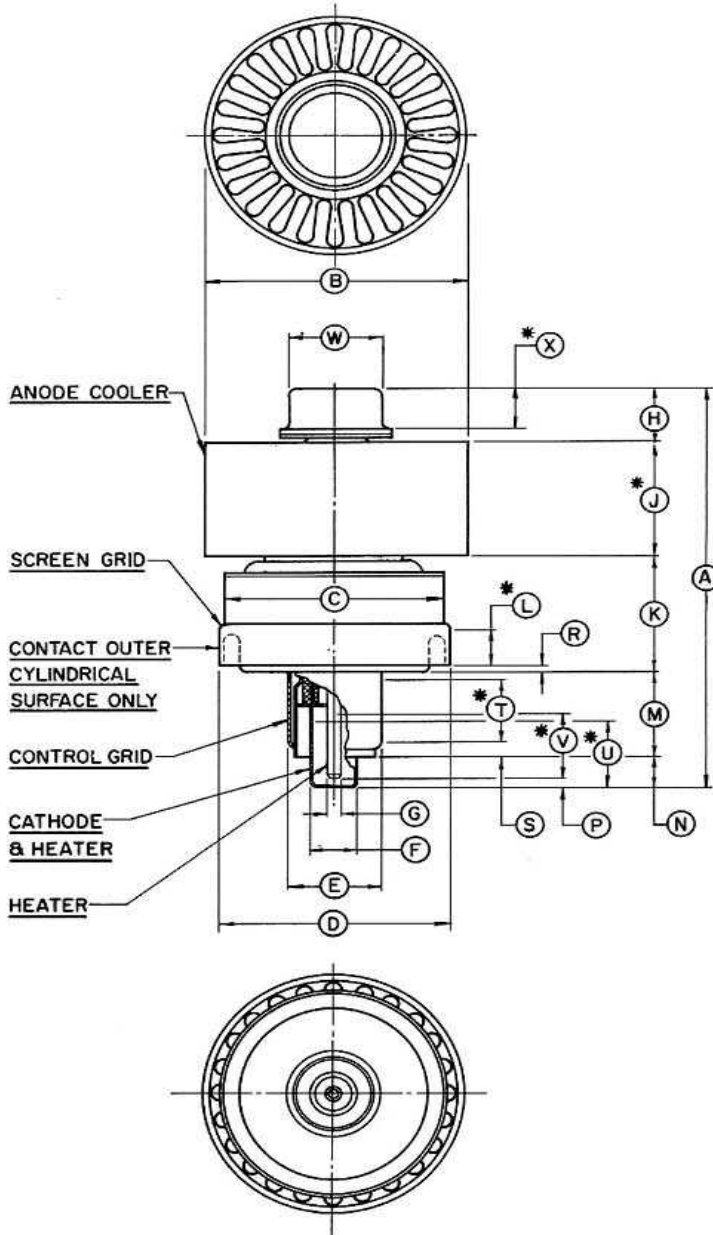
	Class-C Plate Mod	Class-C Teleg or FM	Class-AB Audio or SSB	
D-C PLATE VOLTAGE -	1500	2000	2000	MAX. VOLTS
D-C SCREEN VOLTAGE -	300	300	400	MAX. VOLTS
D-C GRID VOLTAGE -	-250	-250	---	MAX. VOLTS
D-C PLATE CURRENT -	200	250	250	MAX. MA.
PLATE DISSIPATION -	165	250	250	MAX. WATTS
SCREEN DISSIPATION -	12	12	12	MAX. WATTS
GRID DISSIPATION -	2	2	2	MAX. WATTS



4CX250K
4CX250M

TYPICAL OPERATION	-	-	-	D-C Plate Voltage (Volts)	Driving Power (Watts)	Input Power (Watts)	Output Power (Watts)
R-F Amplifier at 500 Mc: (Excluding circuit losses)							
Class-C Telegraphy or FM Telephony				2000	--	500	225
Plate-Modulated Telephony (Carrier)				1500	--	300	140
Class-B Television Visual at 216 Mc:							
Peak-Sync Level	-	-	-	1250	9	380	250
Black Level	-	-	-	1250	6	285	140
Plate-Pulsed Oscillator at 1200 Mc:				7000	--	42,000	17,000

COOLING-At sea level, with an inlet air temperature of 20° C (68° F), and air-flow rate of 4 cfm (Base-to-Anode-Direction) through the anode cooler is required to cool the tube when operating at rated maximum plate dissipation. Under these conditions, 4 cfm corresponds to a pressure difference across the anode cooler of 0.12 inch of water column. Sufficient air must be circulated to the base of the tube to maintain desired seal temperatures; required air flow depends upon socket design.



DIMENSIONS		
REF.	MIN.	MAX.
A		2.813
B	1.610 DIA.	1.640 DIA.
C		1.406 DIA.
D	1.410 DIA.	1.440 DIA.
E	.587 DIA.	.597 DIA.
F	.317 DIA.	.327 DIA.
G	.088 DIA.	.098 DIA.
H		.358
J	.710	.790
K	.740	.820
L	.187	
M	.500	.580
N	.235	.265
P	.032	.062
R	.020 NOM.	
S	.125 NOM.	
T	11/32	
U	13/32	
V	15/32	
W	.559	.573
X	.240	.280