

3CX1500D3/X2261

Medium-Mu

Power Triode

TECHNICAL DATA

The 3CX1500D3 is a medium-mu, forced-air-cooled, rugged, ceramic/metal power triode intended for use as a power oscillator in industrial heating application.

GENERAL CHARACTERISTICS

ELECTRCAL

Filament: Thoriated Tungsten

Voltage.....6.3V

Current.....25A

Maximum Frequency.....110MHz

Amplification Factor (estimated) 24

INTERELECTRODE CAPACITANCE ¹(estimated)

C_{in}.....10pF

C_{out}.....0.9pF

C_{gp}.....10pF

1 Capacitance values are for a cold tube as measured in a special shielded fixture.

MECHANICAL

CoolingForced Air

Socket.....SK-410

Maximum Operating Temperatures:

Plate Seal.....	250
Base Seal.....	250
Mounting Position.....	Vertical, Base Up or Down

MAXIMUM RATINGS

DC Plate Voltage.....	7kV
DC Plate Current.....	800mA
Grid Dissipation.....	100W
Plate Dissipation.....	1500W

COOLING: 1500 Watts/25 cfm at 0.5 inches H₂O or less, Air to be directed through the fins of the tube.

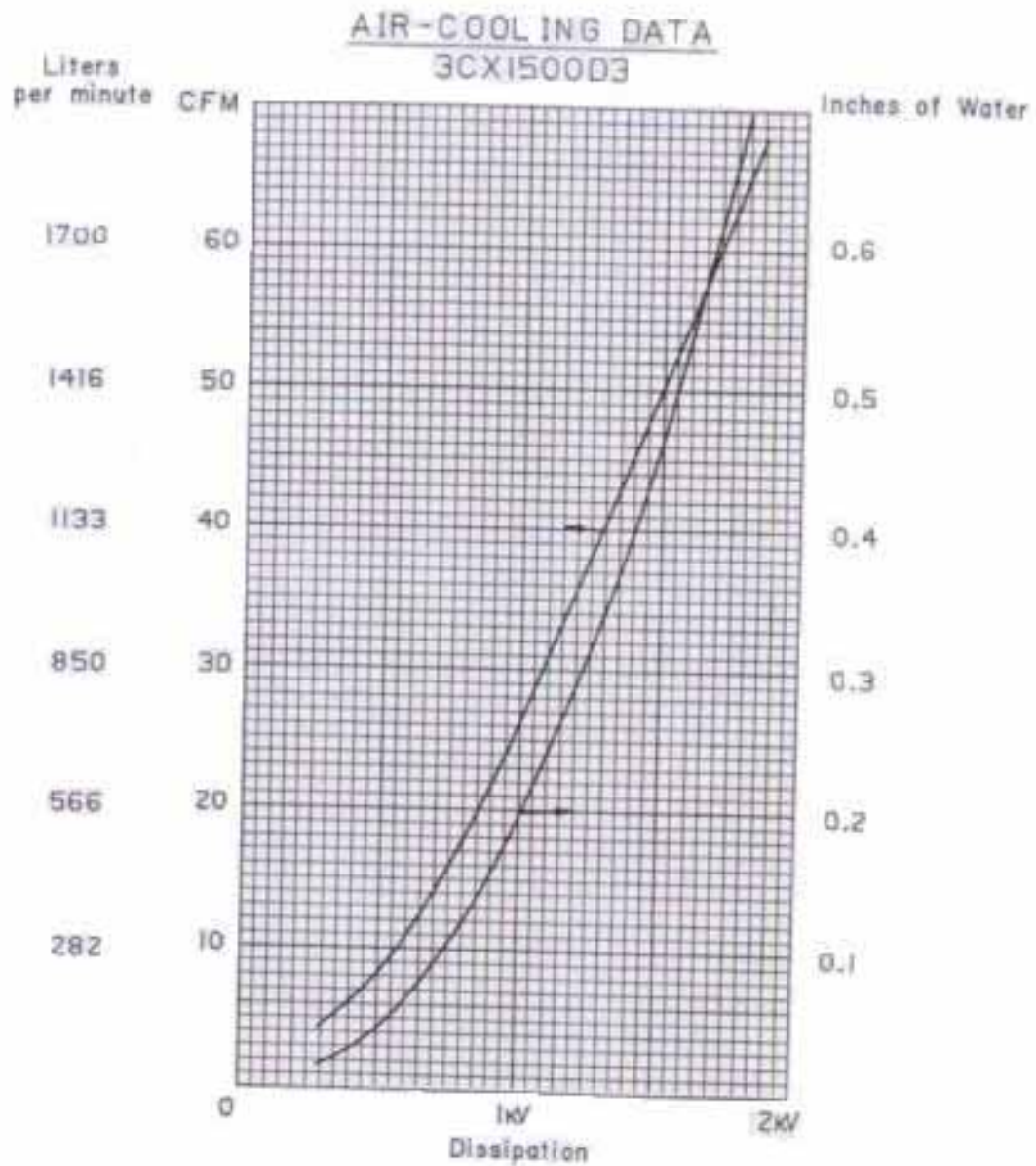
TYPICAL OPERATION

(Radio Frequency Power Amplifier or Oscillator, Class C)

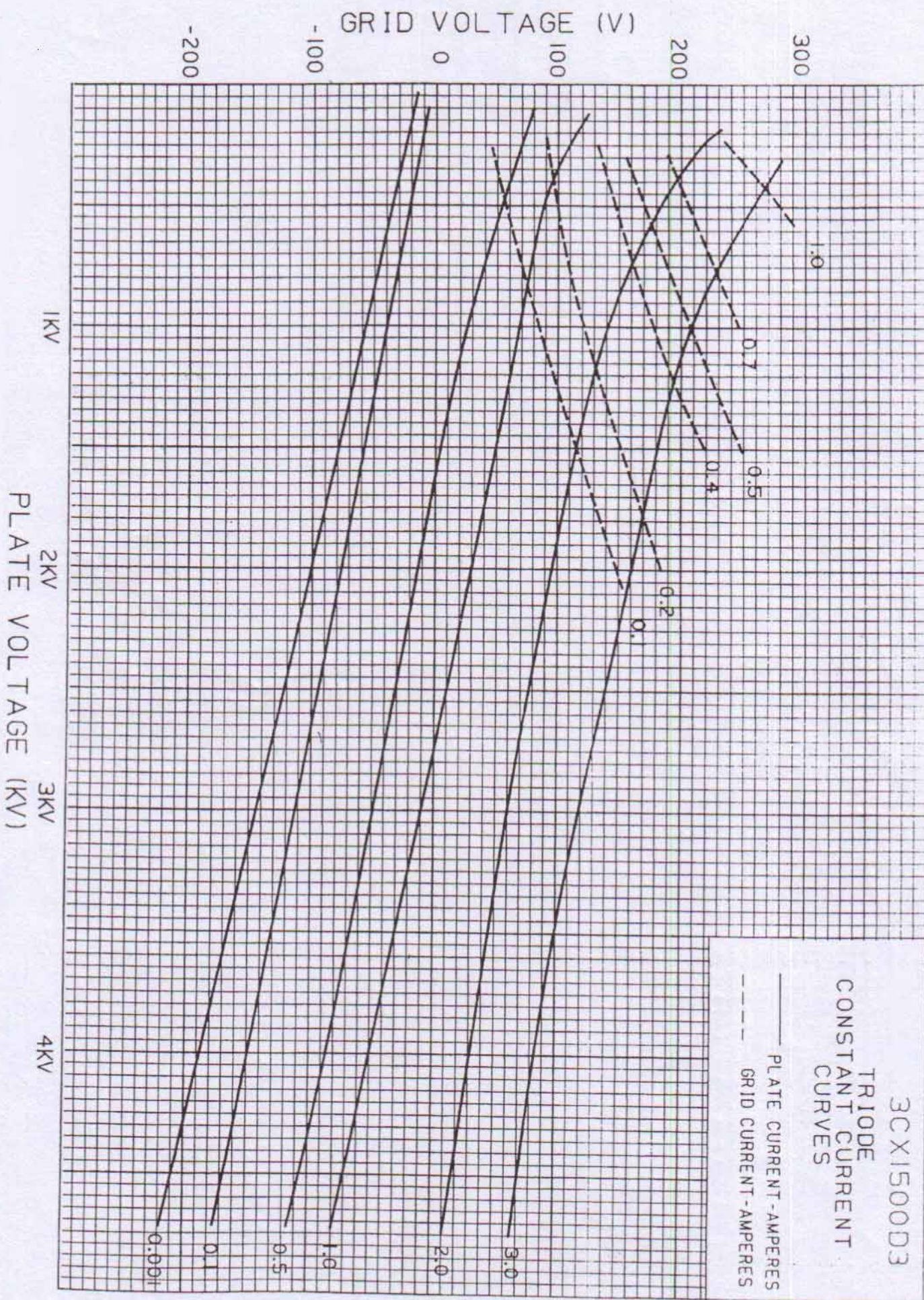
Plate Voltage.....	6kVdc
Plate Current.....	0.65Adc
Grid Voltage.....	-500Vdc
Grid Current ²	0.11Adc
Peak Positive Grid Voltage.....	775V
Driving Power.....	85W
Plate Input Power.....	3900W
Plate Dissipation.....	1100W
Plate Output Power ¹	2800W
Approximate Load Impedance.....	4700 Ohms
Grid Resistor.....	4500 Ohms

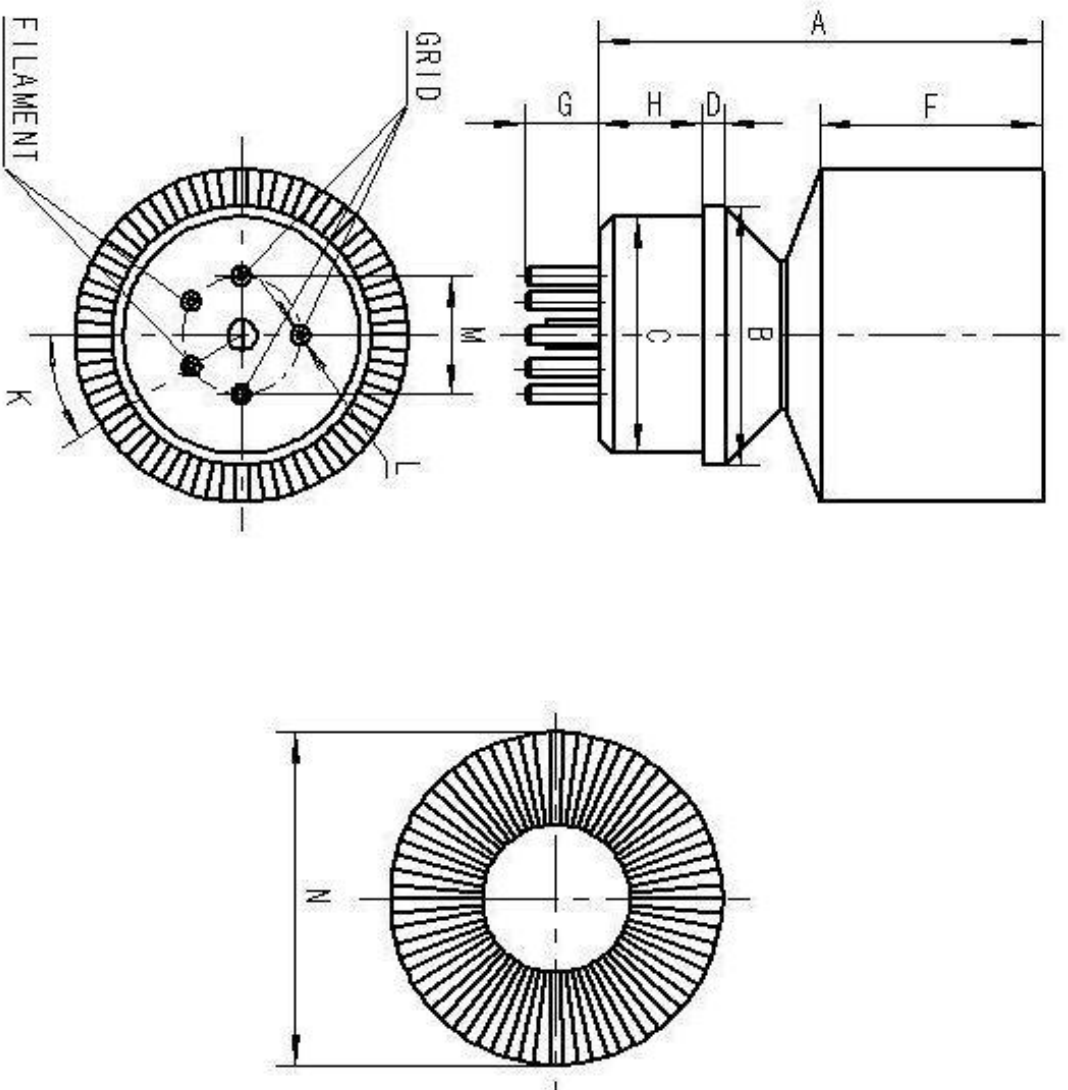
¹An output tank circuit efficiency of 88% is assumed. Power delivered to the load will vary with circuit losses.

²Approximate value.



- CFM and pressure required to keep anode temperature at 225 °C
- Standard conditions 25 °C at 29.92 inches Hg.
- 1 PAS = .00407×inches of water
- 1 CU meter/minute = $2.832 \times 10^{-2} \times \text{CFM}$





DIMENSION DATA							
	INCHES			MILLIMETER			
	MIN	MAX	REF	MIN	MAX	REF	
A			4.026			117.5	
B			2.750			69.85	
C			2.500			63.5	
D	0.215	0.235		5.46	5.96		
F			2.260			57.4	
G		0.768			19.5		
H			1.074			27.3	
K			30°			30°	
L	.185	.191		4.7	4.85		
M			1.250			31.75	
N			3.420			86.87	

3CX1500D3