

CENTRAL ELECTRONIC MANUFACTURERS

DENVILLE, NEW JERSEY

POWER
TRIODE
TYPE

7C23
PLATE DISSIPATION
— 1.2KW

POWER TRIODE

DESCRIPTION

The Nucor tube type 7C23 is a forced-air-cooled, three electrode tube, specifically designed for use in high voltage pulse operation. The anode is capable of dissipating 1.2 kilowatts. It features a sturdily-supported, double-spiral thoriated tungsten filament. Rugged kovar grid and filament seals insure greater protection against mechanical stress and shock. The wide spacing between elements is an additional feature of this tube. Maximum ratings apply up to 5 megacycles.

SPECIFICATIONS

ELECTRICAL:

Filament Voltage11.0 Volts
Filament Current29.0 Amperes
Filament Starting Current58 Amperes
Amplification Factor, at
 $E_c = -50V; I_b = 0.2 \text{ Amp.}$ 25
Interelectrode Capacitances
Grid-Plate12.0 $\mu\mu\text{f}$
Grid-Filament12.5 $\mu\mu\text{f}$
Plate-Filament1.7 $\mu\mu\text{f}$

PHYSICAL:

Mounting Position — Vertical, Anode Down
Type of Cooling — Forced-Air
Maximum Incoming Air Temperature45°C
Required Air Flow on Anode
Cubic Feet Per Minute75
Maximum Glass Temperature150°C
Net Weight, Approximate5¼ Pounds



MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

RADIO-FREQUENCY POWER AMPLIFIER AND OSCILLATOR -- PULSED OPERATION

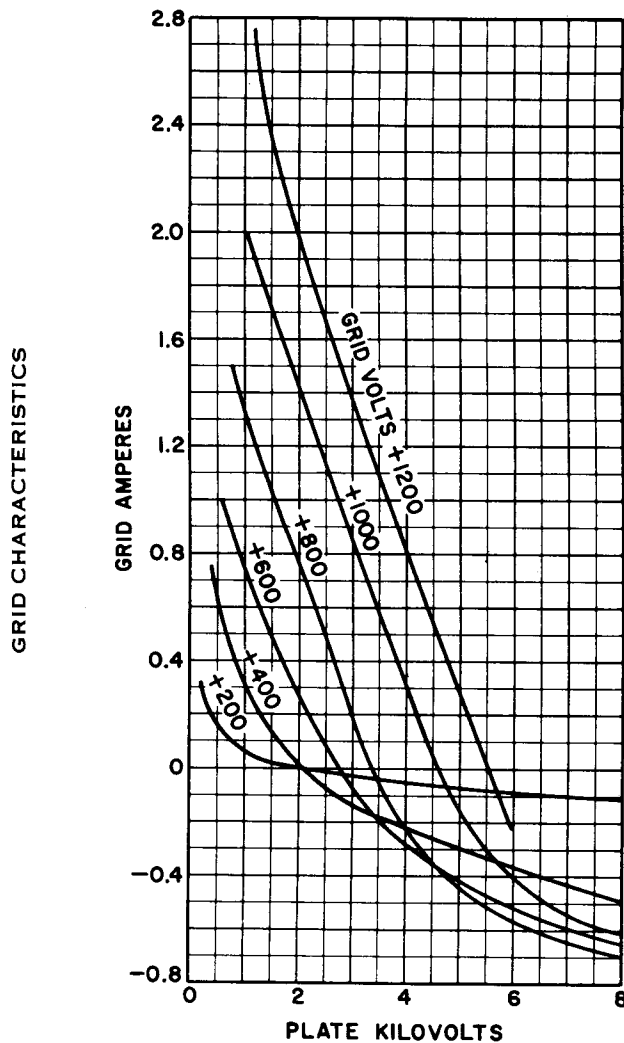
MAXIMUM RATINGS, ABSOLUTE VALUES

DC Plate Voltage	17,500 Volts
DC Grid Voltage	-2,000 Volts
DC Plate Current	0.100 Ampere
DC Grid Current	0.010 Ampere
Plate Dissipation	1200 Watts
Maximum Pulse Width	90 μ Seconds
Maximum Duty	0.005

TYPICAL OPERATION

(Unless otherwise specified, values are for two tubes)

DC Plate Voltage	15,000 Volts
DC Plate Current	0.16 Ampere
DC Grid Current	1.25 Ma
Average Power Output	120 Watts
Peak Power Output	120 Kilowatts



CONSTANT CURRENT CHARACTERISTICS

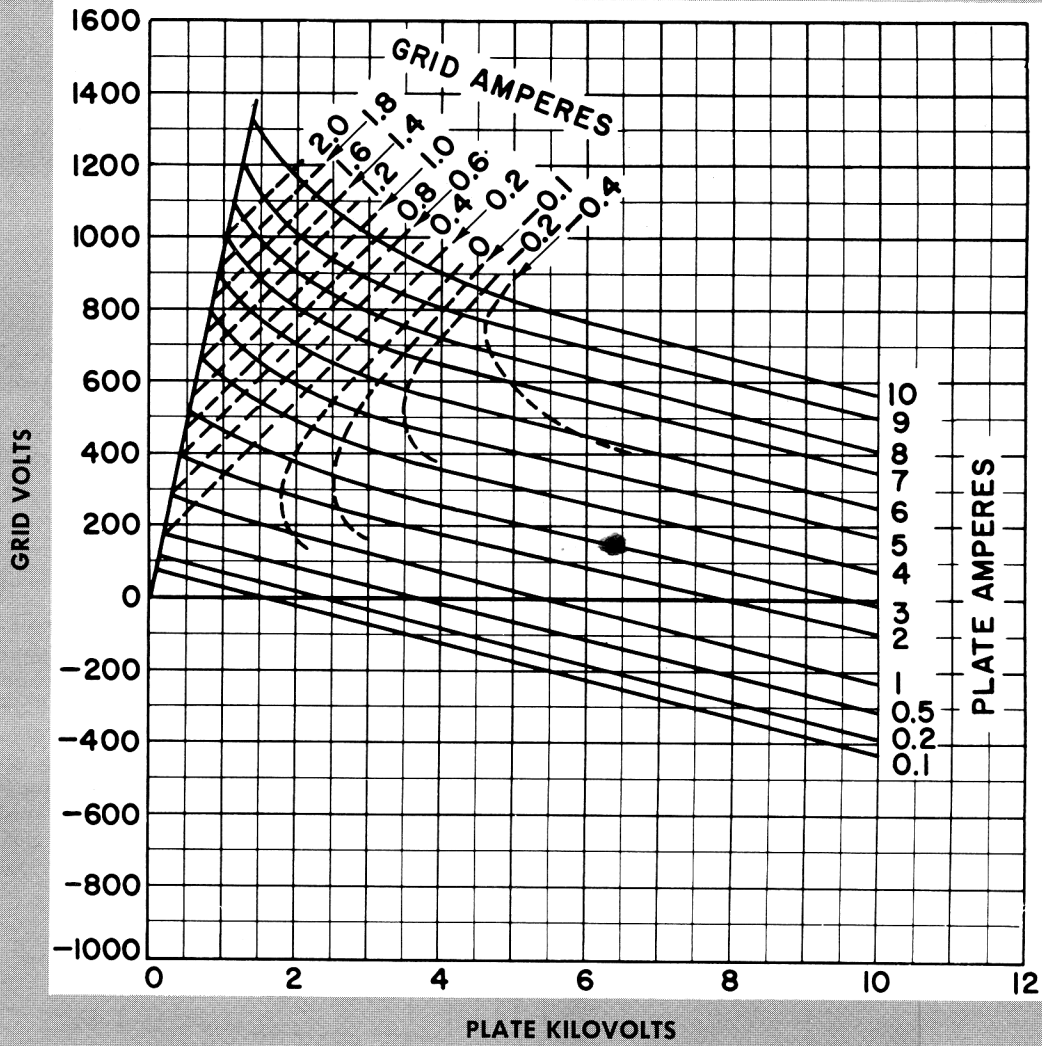
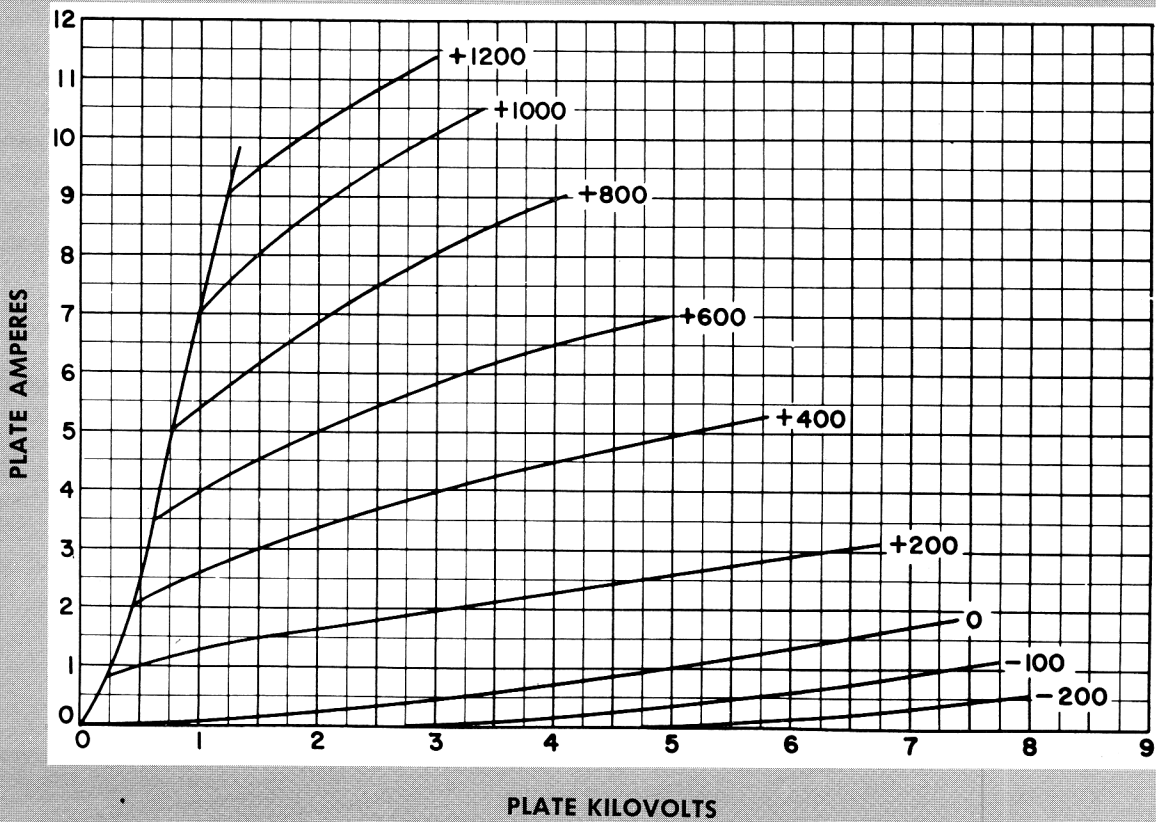


PLATE CHARACTERISTICS



POWER
TRIODE

TYPE

7C23

PLATE DISSIPATION

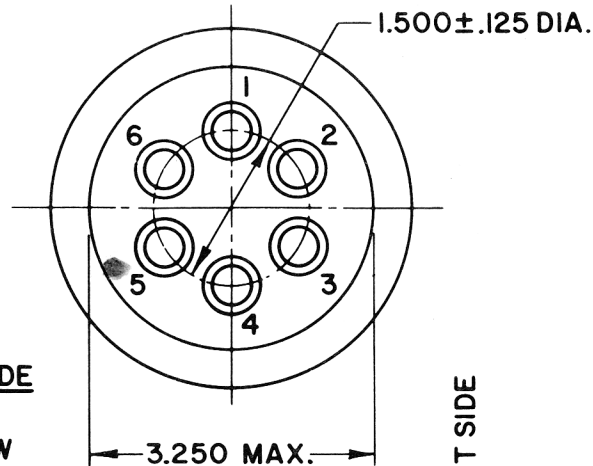
— 1.2KW

CENTRAL ELECTRONIC

MANUFACTURERS

DENVILLE, NEW JERSEY

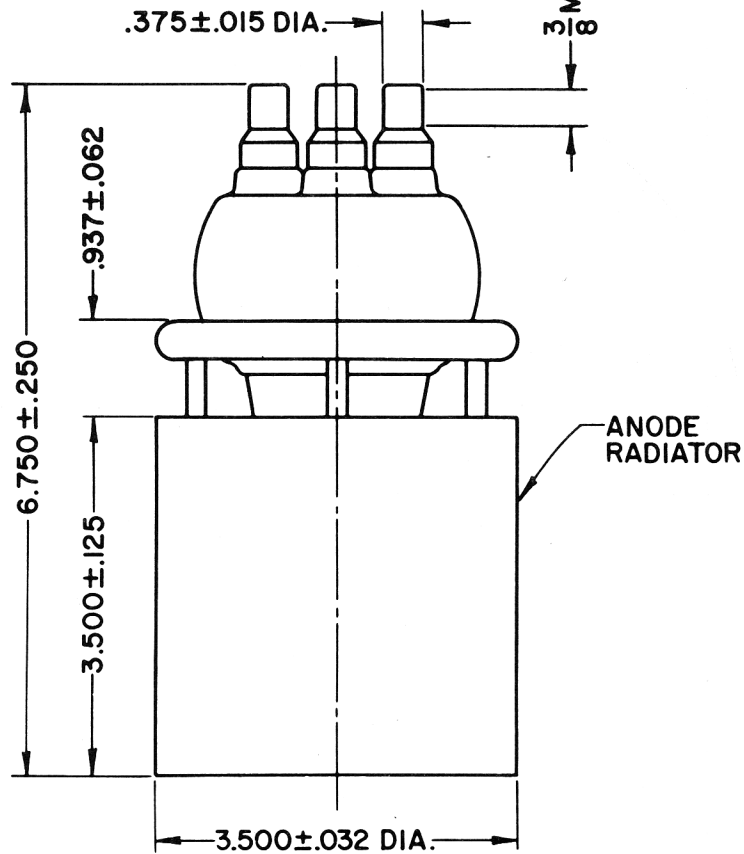
OUTLINE



TERMINAL COLOR CODE

- 1 = GRID — BLACK
- 2 = FIL. — YELLOW
- 3 = GRID — BLACK
- 4 = F.C.T. — RED
- 5 = GRID — BLACK
- 6 = FIL. — YELLOW

3/16 MIN. STRAIGHT SIDE



DIVISION OF NUCLEAR CORPORATION OF AMERICA