

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 Voltage 11.0 Volts

Filament Current 29.0 Amperes

Filament Starting Current 58 Amperes

Amplification Factor, at

$E_c = -50V$; $I_b = 0.2$ Amp. 25

Interelectrode Capacitances

Grid-Plate 12.0 μf

Grid-Filament 12.5 μf

Plate-Filament 1.7 μf

PHYSICAL:

Mounting Position — Vertical, Anode Down

Type of Cooling — Forced-Air

Maximum Incoming Air Temperature 45°C

Required Air Flow on Anode

Cubic Feet Per Minute 75

Maximum Glass Temperature 150°C

Net Weight, Approximate 5¼ Pounds



DIVISION OF NUCLEAR CORPORATION OF AMERICA

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

RADIO-FREQUENCY POWER AMPLIFIER AND OSCILLATOR -- PULSED OPERATION

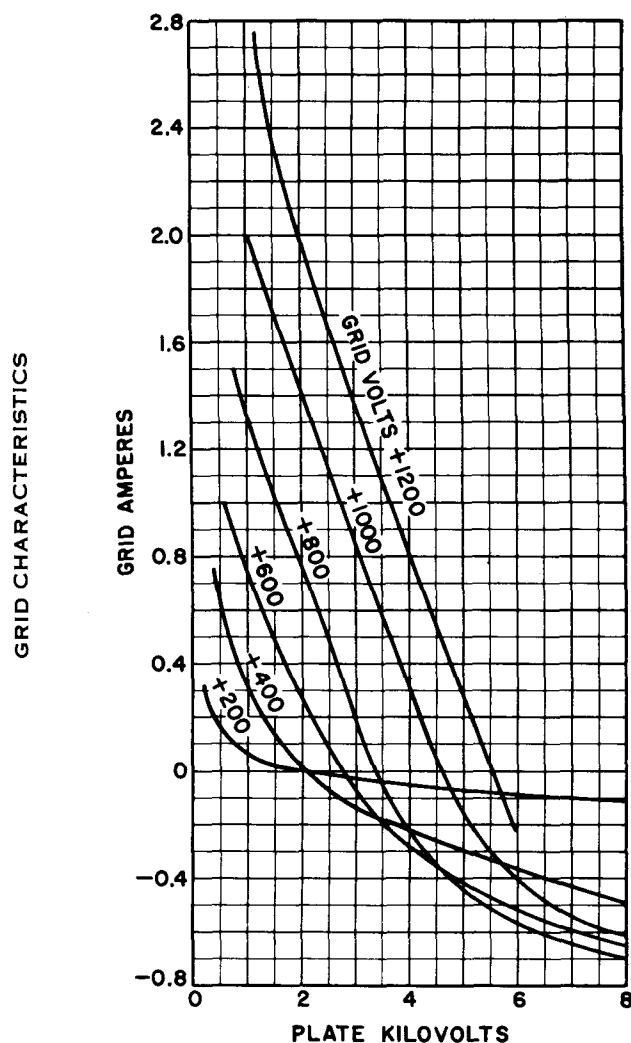
MAXIMUM RATINGS, ABSOLUTE VALUES

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

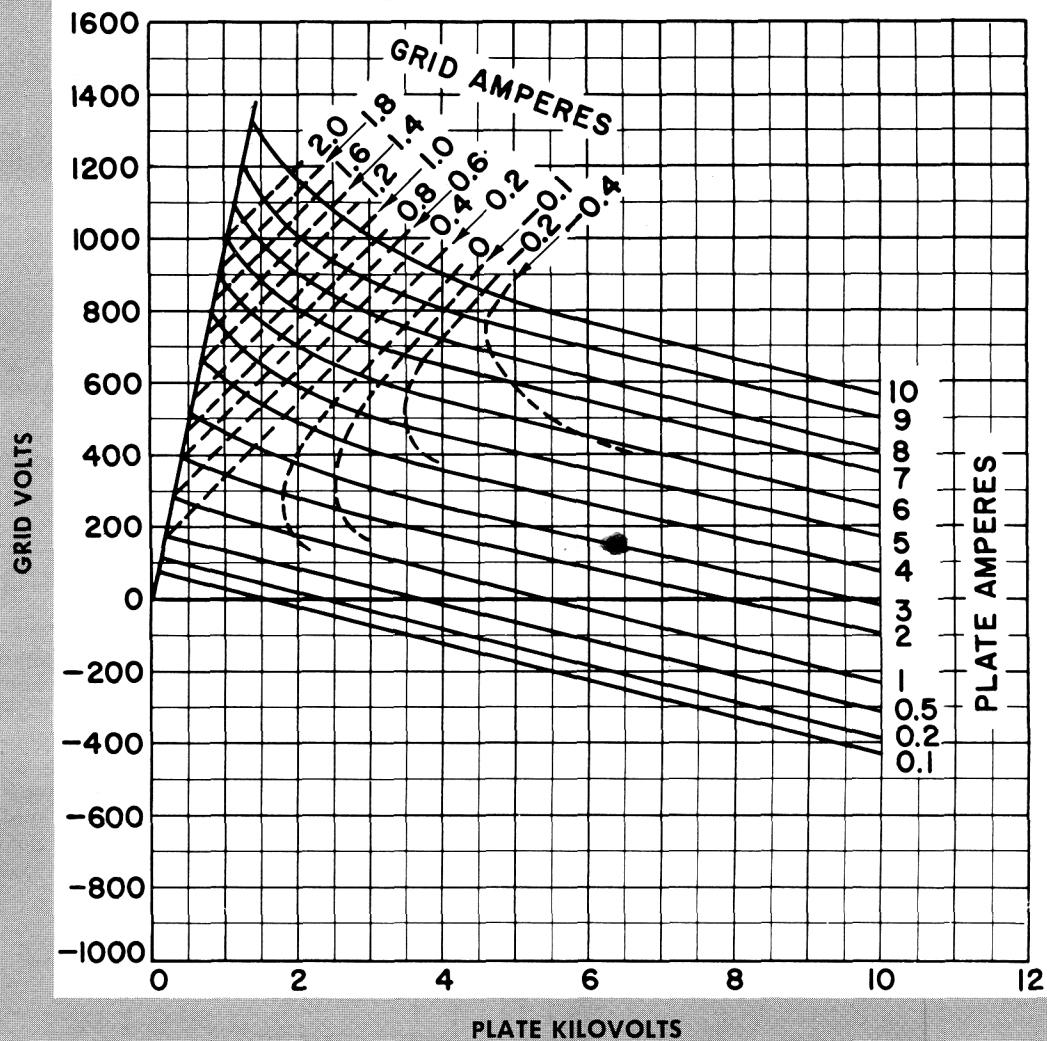
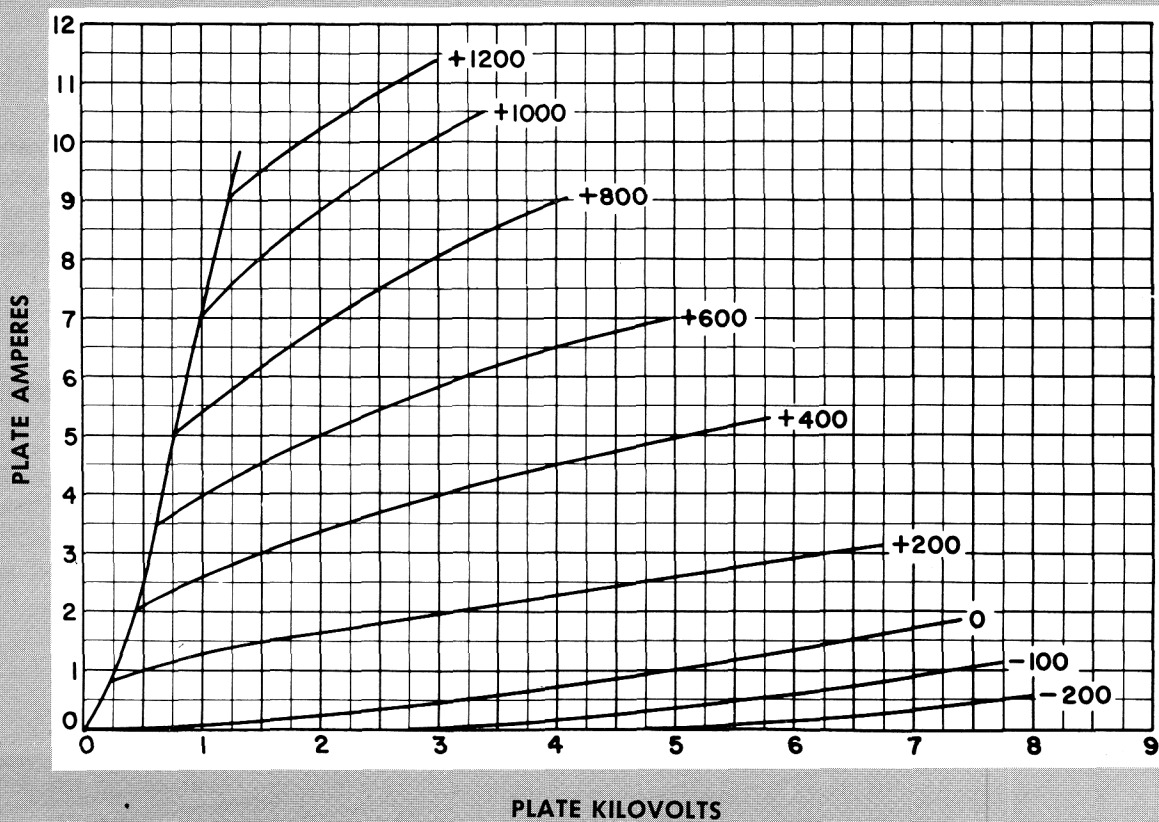


PLATE CHARACTERISTICS



POWER
TRIODE

TYPE

7C23

PLATE DISSIPATION

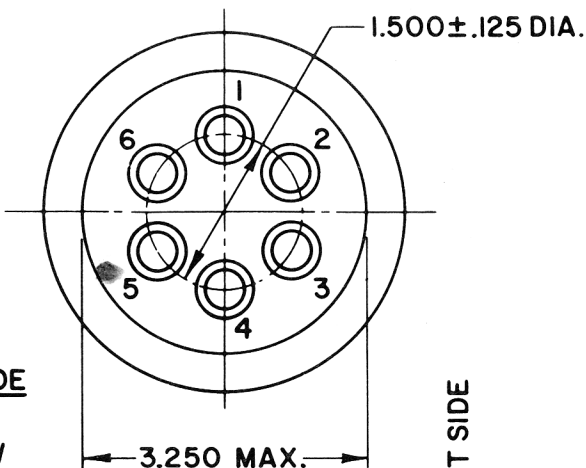
— 1.2KW

CENTRAL ELECTRONIC

MANUFACTURERS

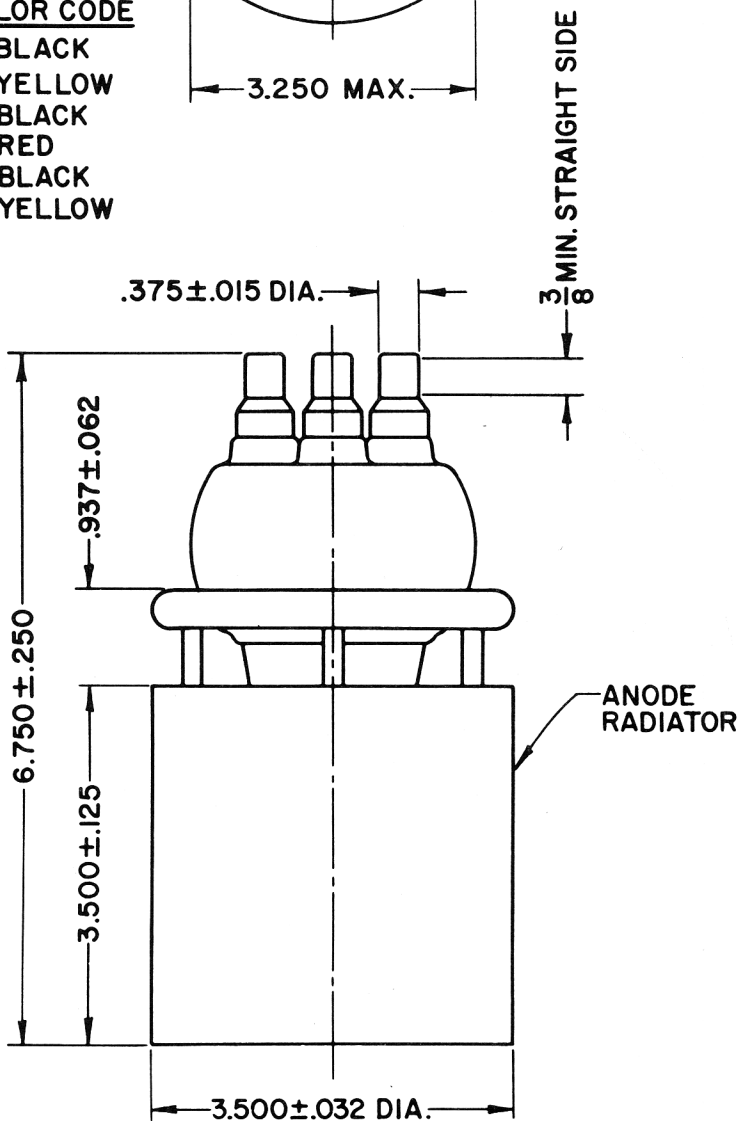
DENVILLE, NEW JERSEY

OUTLINE



TERMINAL COLOR CODE

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



DIVISION OF NUCLEAR CORPORATION OF AMERICA