

Beam Power Tube

NOVAR TYPE

For Horizontal-Deflection-Amplifier
Service in Black-and-White TV Receivers

Electrical:

Heater Characteristics and Ratings:

Voltage (AC or DC) 6.3 ± 0.6 volts

Current at heater volts = 6.3 1.200 amp

Peak heater-cathode voltage:

Heater negative with respect to cathode. 200 max. volts

Heater positive with respect to cathode. 200^a max. voltsDirect Interelectrode Capacitances (Approx):^b

Grid No.1 to Plate 0.26 pf

Input: G1 to (K+G3, G2, H). 15.0 pf

Output: P to (K+G3, G2, H). 6.5 pf

Mechanical:

Operating Position Any

Type of Cathode. Coated Unipotential

Maximum Overall Length 2.880"

Seated Length. 2.250" to 2.500"

Diameter 1.438" to 1.562"

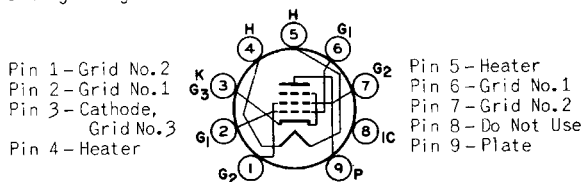
Dimensional Outline. See *General Section*

Bulb T12

Base Large-Button Novar 9-Pin with Exhaust Tip

(JEDEC No. E9-88)

Basing Designation for BOTTOM VIEW 9NZ

Characteristics, Class A₁ Amplifier:

	Triode Connection ^c	Pentode Connection	
Plate Voltage.	150	60 250	volts
Grid-No.2 Voltage.	150	150 150	volts
Grid-No.1 Voltage.	-22.5	0 -22.5	volts
Amplification Factor	4.4	-	
Plate Resistance (Approx.)	-	- 15000	ohms
Transconductance	-	- 7100	μ mhos
Plate Current.	-	390 ^d 70	ma
Grid-No.2 Current.	-	32 ^d 2.1	ma
Grid-No.1 Voltage (Approx.) for plate ma = 0.1	-	- -42	volts



HORIZONTAL-DEFLECTION AMPLIFIER

Maximum Ratings, Design-Maximum Values:

For operation in a 525-line, 30-frame system^e

DC Plate-Supply Voltage.	770 max.	volts
Peak Positive-Pulse Plate Voltage ^f	6500 max.	volts
Peak Negative-Pulse Plate Voltage.	1500 max.	volts
DC Grid-No.2 (Screen-Grid) Voltage.	220 max.	volts
DC Grid-No.1 (Control-Grid) Voltage.	-55 max.	volts
Peak Negative-Pulse Grid-No.1 Voltage. . . .	330 max.	volts
Cathode Current:		
Peak	550 max.	ma
Average.	175 max.	ma
Grid-No.2 Input.	3.5 max.	watts
Plate Dissipation ^g	17.5 max.	watts
Bulb Temperature (At hottest point		
on bulb surface)	240 max.	°C

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:		
For grid-resistor-bias operation	1 max.	megohm

^a The dc component must not exceed 100 volts.

^b without external shield.

^c with grid No.2 connected to plate.

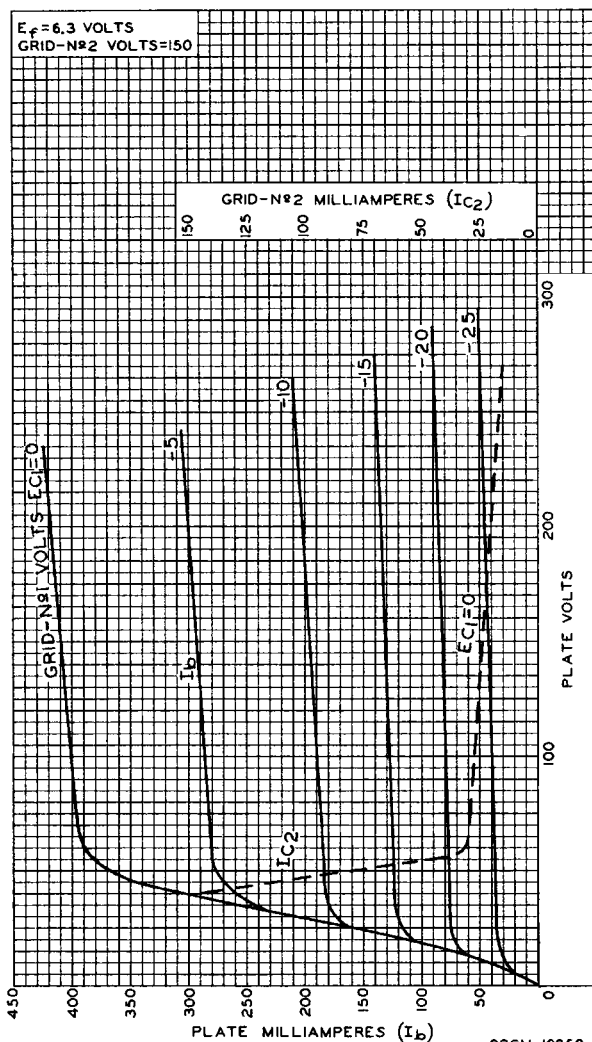
^d This value can be measured by a method involving a recurrent wave form such that the maximum ratings of the tube will not be exceeded.

^e As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations", Federal Communications Commission.

^f This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one horizontal scanning cycle. In a 525-line, 30-frame system, 15 per cent of one horizontal scanning cycle is 10 microseconds.

^g An adequate bias resistor or other means is required to protect the tube in the absence of excitation.

AVERAGE CHARACTERISTICS



92CM-10859

