

Beam Power Tube

NOVAR TYPE

SEPARATE GRID-No.3 BASE-PIN TERMINAL FOR "SNIVETS" CONTROL^a

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 ^b max.	volts

Direct Interelectrode Capacitances (Approx.):^c

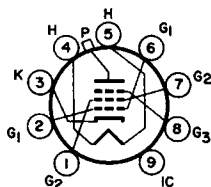
Grid No.1 to plate	0.2	pf
Input: G1 to (K+G3, G2, H)	15.0	pf
Output: P to (K+G3, G2, H)	6.0	pf

Mechanical:

Operating Position	Any
Type of Cathode	Coated Unipotential
Maximum Overall Length	3.505"
Seated Length	2.875" ± 3.125"
Diameter	1.438" ± 1.562"
Dimensional Outline	See <i>General Section</i>
Bulb	T12
Cap	Skirted Miniature (JEDEC No. C1-2 or C1-3)
Base	Large-Button Novar 9-Pin with Exhaust Tip (JEDEC No. E9-88)

Basing Designation for BOTTOM VIEW 9QL

- Pin 1-Grid No.2
- Pin 2-Grid No.1
- Pin 3-Cathode
- Pin 4-Heater
- Pin 5-Heater
- Pin 6-Grid No.1
- Pin 7-Grid No.2
- Pin 8-Grid No.3
- Pin 9-Do Not Use
- Cap-Plate



Characteristics, Class A₁ Amplifier:

	Triode Connection	Pentode Connection	
Plate Voltage	150	60	250 volts
Grid No.3	-	Connected to cathode	
		-	at socket
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



6JB6A

	Triode Connection	Pentode Connection	
Transconductance.	—	—	7100 μ hos
Plate Current	—	390 ^d	70 ma
Grid-No.2 Current	—	32 ^d	2.1 ma
Grid-No.1 Voltage (Approx.) for plate current = 1 ma. . .	—	—	-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.3 Voltage ^a	70 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^f . . . 1 max. megohm

^a A positive voltage may be applied to grid No.3 to reduce interference from "snivets" which may occur in television receivers. A typical value for this voltage is 30 volts.

^b The dc component must not exceed 100 volts.

^c Without external shield.

^d This value can be measured by a method involving a recurrent wave form such that the plate dissipation, grid-No.2 input, and cathode current will be kept within ratings in order to prevent damage to the tube.

^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.

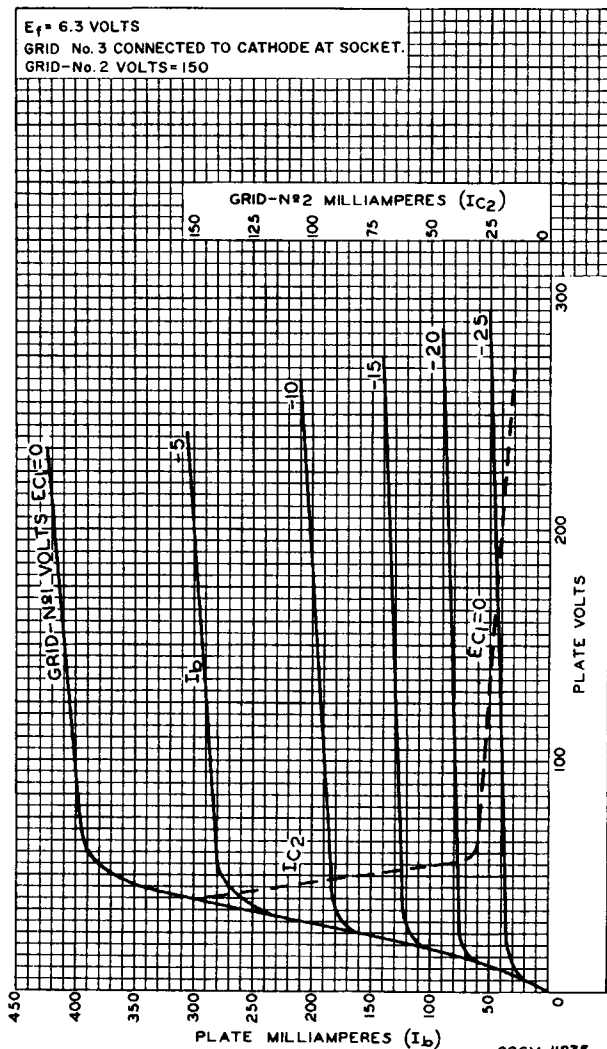
^g It is essential that the plate dissipation be limited in the event of loss of grid signal. For this purpose, some protective means such as a cathode resistor of suitable value should be employed.

AVERAGE CHARACTERISTICS

$E_f = 6.3$ VOLTS

GRID No. 3 CONNECTED TO CATHODE AT SOCKET.

GRID-No. 2 VOLTS = 150



92CM-11835

