

Beam Power Tube

NOVAR TYPE

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

Electrical:

Heater Ratings and Characteristics:

Voltage (AC or DC)	6.3 $\pm$ 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 max.	volts ^a

Direct Interelectrode Capacitances (Approx.):^b

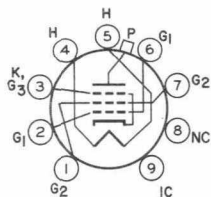
Grid No.1 to plate.	0.26	pf
Input: G ₁ to (K, G ₃ , G ₂ , H)	15.0	pf
Output: P to (K, G ₃ , G ₂ , H)	6.5	pf

Mechanical:

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

Basing Designation for BOTTOM VIEW. 9QK

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



Characteristics, Class A₁ Amplifier:

	Triode Connection	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
Mu-factor, Grid No.2 to			
Grid No.1	4.4	- -	
Plate Resistance (Approx.)	-	15000	ohms
Transconductance.	-	7100	μmhos



6GJ5A

	Triode Connection	Pentode Connection	
Plate Current	—	390 ^c	70 ma
Grid-No.2 Current	—	32 ^c	2.1 ma
Grid-No.1 Voltage (Approx.) for plate ma = 1.	—	—	-42 volts

HORIZONTAL-DEFLECTION AMPLIFIER

Maximum Ratings, Design-Maximum Values:

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

DC Plate-Supply Voltage	770	max.	volts
Peak Positive-Pulse Plate Voltage ^e	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 ^f	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 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.

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

^e 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.

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



AVERAGE CHARACTERISTICS

