

Beam Power Tube

NOVAR TYPE SPECIAL PLATE STRUCTURE^a

For Color TV Horizontal-Deflection-Amplifier Applications

ELECTRICAL

Heater Characteristics and Ratings

Voltage (AC or DC)	6.3 ± 0.6	V
Current at 6.3 V	2.500	A
Maximum heater-cathode voltage		
Heater negative with respect to cathode:		
Peak	200	V
Heater positive with respect to cathode:		
Peak	200	V
DC component	100	V

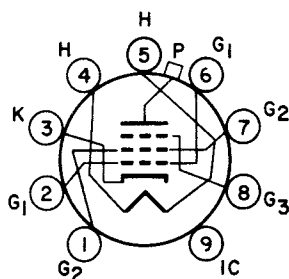
Direct Interelectrode Capacitances (Approx.)

Without external shield		
Grid No.1 to plate	0.56	pF
Input: G1 to (K, G3, G2, H).	22	pF
Output: P to (K, G3, G2, H).	11	pF

MECHANICAL

Operating Position	Any
Type of Cathode.	Coated Unipotential
Maximum Overall Length	4.130 in
Seated Length.	3.500 to 3.750 in
Diameter	1.438 to 1.562 in
Dimensional Outline (JEDEC No. 12-116)	See General Section
Bulb	T12
Cap.	Small (JEDEC No. C1-1)
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

Plate Voltage.	-	55	175	-	60	175	V
Peak Positive-Pulse							
Plate Voltage ^b	5000	-	-	5000	-	-	V
Grid-No.3 Voltage.	+30	+30	+30	+30	+30	+30	V
Grid-No.2 Voltage.	125	125	125	145	145	145	V
Grid-No.1 Voltage.	-	0	-25	-	0	-35	V
Plate Resistance (Approx.)	-	-	5800	-	-	7000	Ω
Transconductance	-	-	9600	-	-	7500	μmhos



6JE6A

Plate Current.	-	580 ^c	130	-	710 ^c	95	mA
Grid-No.2 Current. . .	-	40 ^c	2.8	-	55 ^c	2.4	mA
Grid-No.1 Voltage (Approx.) for plate mA = 1.							
	-120	-	-54	-125	-	-60	V
Triode Amplification Factor (Triode connection: grid No.2 connected to plate at socket).							
	-	-	3 ^d	-	-	2.8 ^e	

HORIZONTAL-DEFLECTION AMPLIFIER

Maximum Ratings, Design-Maximum Values

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

DC Plate Supply Voltage.	990	V
Peak Positive-Pulse Plate Voltage ^f	7500	V
Peak Negative-Pulse Plate Voltage.	1100	V
DC Grid-No.3 Voltage ^g	75	V
DC Grid-No.2 (Screen-Grid) Voltage	220	V
Peak Negative-Pulse Grid-No.1 (Control-Grid) Voltage	330	V
Cathode Current		
Peak	1200	mA
Average.	350	mA
Grid-No.2 Input.	5	W
Plate Dissipation ^h	30	W
Bulb Temperature	250	°C
At hottest point on bulb surface		

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance

For grid-resistor bias operation ^h	0.47	MΩ
For plate-pulsed operation.	10	MΩ
(Horizontal-deflection circuits only)		

^a Designed to minimize secondary-electron emission from plate and eliminate "knee" discontinuities in zero-bias region.

^b Under conditions shown in footnote^e.

^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 Plate volts = grid-No.2 volts = 125; grid No.3 connected to cathode at socket; grid-No.1 volts = -25.

^e Plate volts = grid-No.2 volts = 145; grid No.3 connected to cathode at socket; grid-No.1 volts = -35.

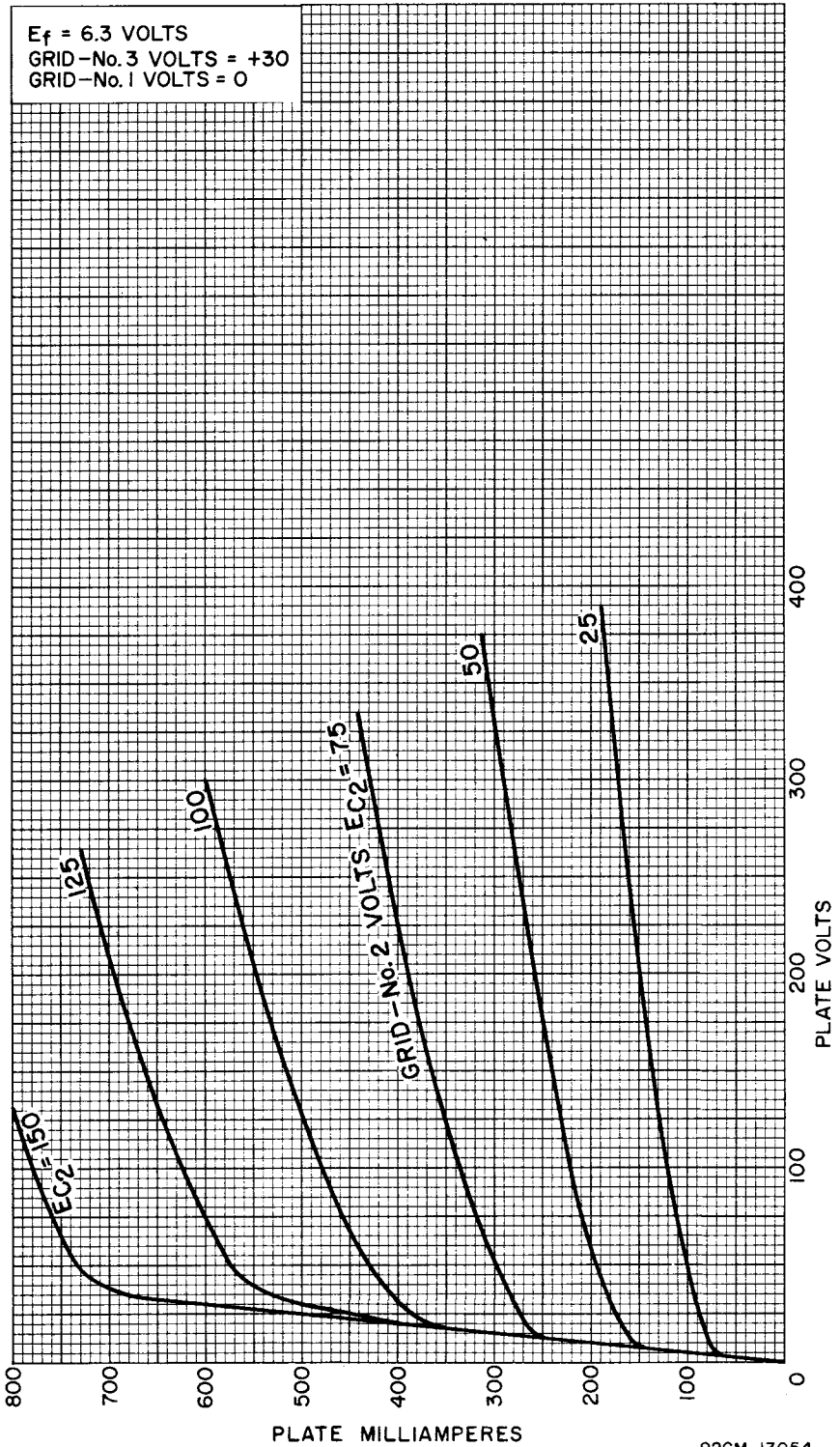
^f This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one horizontal scanning cycle. In a 525-line, 30-frame system, 15 per cent of one horizontal scanning cycle is 10 microseconds.

^g In horizontal-deflection-amplifier service, a positive voltage should be applied to grid No.3 to reduce interference from "snivets", which may occur in both vhf and uhf television receivers, and to increase power output. A typical value for this voltage is 30 volts.

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



Average Characteristics



92CM-13054



Average Characteristics

