

Beam Power Tube

NOVAR TYPE

For Color-TV Horizontal-Deflection Amplifier Applications

GENERAL DATA

Electrical:

Heater Characteristics and Ratings:

Voltage (AC or DC) 6.3 ± 0.6 volts

Current at heater volts = 6.3 2.500 amp

Peak heater-cathode voltage:

Heater negative with

respect to cathode. 200 max. volts

Heater positive with

respect to cathode. 200^a max. volts

Direct Interelectrode Capacitances

(Approx.):^b

Grid No.1 to plate. 0.44 pf

Grid No.1 to cathode, grid No.3,
grid No.2, and heater 21.0 pfPlate to cathode, grid No.3,
grid No.2, and heater 11.0 pfCharacteristics, Class A₁ Amplifier:

	Triode Connection	Pentode Connection	
Plate Voltage	125	70	175 volts
Grid No.3	Connected to cathode at socket		
Grid-No.2 Voltage	125	125	125 volts
Grid-No.1 Voltage	-25	0	-25 volts
Amplification Factor	3.3	-	-
Plate Resistance (Approx.)	-	-	5500 ohms
Transconductance	-	-	10500 μ mhos
Plate Current	-	580 ^c	115 ma
Grid-No.2 Current	-	40 ^c	5 ma
Grid-No.1 Voltage (Approx.) for plate ma. = 1	-	-	-55 volts

Mechanical:

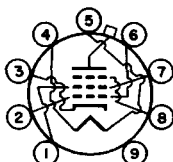
Operating Position	Any
Type of Cathode	Coated Unipotential
Maximum Overall Length	4.600"
Seated Length	$4.090" \pm 0.130"$
Diameter	1.438" to 1.562"
Bulb	T12
Cap	Small (JEDEC No.C1-1)
Socket	Cinch Mfg. Co. No.149 19 00 033, Industrial Electronic Hardware Corp. No.S0-0968-SL1, or equivalent



6JE6

Base. Large Button Novar 9-Pin (JEDEC No. E9-76)
 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

HORIZONTAL-DEFLECTION AMPLIFIER

Maximum Ratings, Design-Maximum Values:

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

DC PLATE-SUPPLY VOLTAGE	990 max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE ^a	7000 max.	volts
PEAK NEGATIVE-PULSE PLATE VOLTAGE	1100 max.	volts
DC GRID-No.3 VOLTAGE (See <i>Operating Considerations</i>).	75 max.	volts
DC GRID-No.2 (SCREEN-GRID) VOLTAGE. . . .	190 max.	volts
PEAK NEGATIVE-PULSE GRID-No.1 (CONTROL-GRID) VOLTAGE.	250 max.	volts
CATHODE CURRENT:		
Peak.	1100 max.	ma
Average	315 max.	ma
GRID-No.2 INPUT	3.2 max.	watts
PLATE DISSIPATION ^f	24 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 . . .	0.47 max.	megohm
For plate-pulsed operation (horizontal-deflection circuits only).	10 max.	megohms

^a The dc component must not exceed 100 volts.

^b Without external shield.

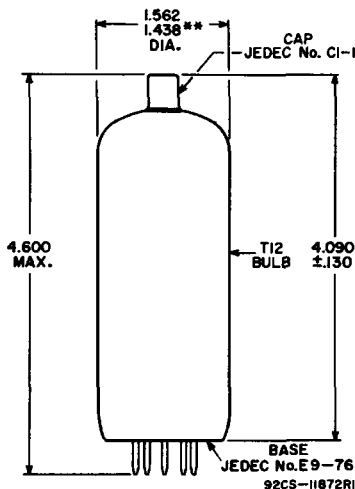
^c This value can be measured by a method involving a recurrent wave form such that the plate dissipation, grid-No.2 input, and cathode current will be kept within ratings in order to prevent damage to the tube.

^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 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.





ALL DIMENSIONS IN INCHES

** APPLIES IN ZONE STARTING 0.375" FROM BASE SEAT.

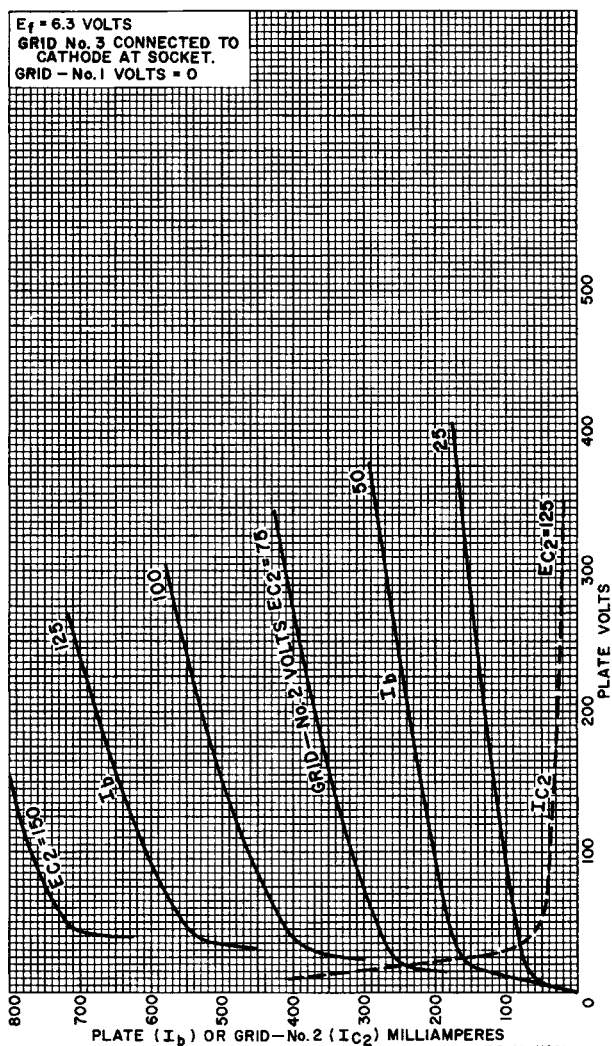
OPERATING CONSIDERATIONS

In *horizontal-deflection amplifier service* a positive voltage may be applied to grid No.3 to minimize "snivets" interference which may occur in both uhf and vhf television receivers. A typical value for this voltage is 30 volts.



AVERAGE CHARACTERISTICS

$E_f = 6.3$ VOLTS
 GRID No. 3 CONNECTED TO
 CATHODE AT SOCKET.
 GRID - No. 1 VOLTS = 0



92CM-11881

AVERAGE CHARACTERISTICS

