

Beam Power Tube

DUODECAR TYPE

Electrical:

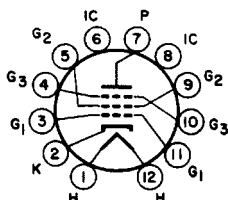
Heater Ratings and Characteristics:

Voltage (AC or DC)	6.3 ± 0.6	volts
Current at heater volts = 6.3	2.250	amp
Peak heater-cathode voltage:		
Heater negative with respect to cathode.	200	max. volts
Heater positive with respect to cathode.	200 ^a	max. volts

Mechanical:

Operating Position.	Any
Type of Cathode	Coated Unipotential
Maximum Overall Length.	3.625"
Seated Length	3.000" to 3.250"
Diameter.	1.437" to 1.563"
Dimensional Outline	See <i>General Section</i>
Bulb.	T12
Base.	Large-Button Duodecar 12-Pin (JEDEC No. E12-74)
Basing Designation for BOTTOM VIEW.	12FL

- Pin 1 - Heater
- Pin 2 - Cathode
- Pin 3 - Grid No.1
- Pin 4 - Grid No.3
- Pin 5 - Grid No.2
- Pin 6 - Do Not Use



- Pin 7 - Plate
- Pin 8 - Do Not Use
- Pin 9 - Grid No.2
- Pin 10 - Grid No.3
- Pin 11 - Grid No.1
- Pin 12 - Heater

Characteristics, Class A₁ Amplifier:

				Triode Con- nec- tion ^b	
Plate Voltage.	40	60	135	135	volts
Grid-No.3 Voltage.	Connected to cathode at socket		0	-	volts
Grid-No.2 Voltage.	110	135	135	135	volts
Grid-No.1 Voltage.	0	0	-22	-22	volts
Amplification Factor	-	-	-	4.2	
Plate Resist- ance (Approx.)	-	-	5000	-	ohms
Transconductance	-	-	10000	-	μmhos
Plate Current.	400 ^c	540 ^c	80	-	ma
Grid-No.2 Current.	42 ^c	40 ^c	5.5	-	ma
Grid-No.1 Voltage (Approx.) for plate ma. = 1, grid-No.2 volts = 135, plate volts = 4500	-	-	-70	-	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	7000 max.	volts
Peak Negative-Pulse Plate Voltage.	1500 max.	volts
DC Grid-No.3 (Suppressor-Grid) Voltage ^f	70 max.	volts
DC Grid-No.2 (Screen-Grid) Voltage.	220 max.	volts
Peak Negative-Pulse Grid-No.1 Voltage.	330 max.	volts
Cathode Current:		
Peak.	1000 max.	ma
Average.	280 max.	ma
Grid-No.2 Input.	6 max.	watts
Grid-No.2 Input (warm-up surge) ^g	12 max.	watts
Plate Dissipation ^h	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 1 max. megohm

^a The dc component must not exceed 100 volts.

^b With grid No.2 connected to plate at socket.

^c Instantaneous values.

^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 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.

^g Surge not to exceed 15 second duration.

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