

Medium-Mu Triode— Beam Power Tube

DUODECAR TYPE

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 (Each unit):		
Heater negative with respect to cathode	200	max. volts
Heater positive with respect to cathode	200 ^a	max. volts

Direct Interelectrode Capacitances (Approx.):^b

Triode Unit:

G _T to P _T	3.6	pf
Input: G _T to (K _T , H)	2.2	pf
Output: P _T to (K _T , H)	0.7	pf

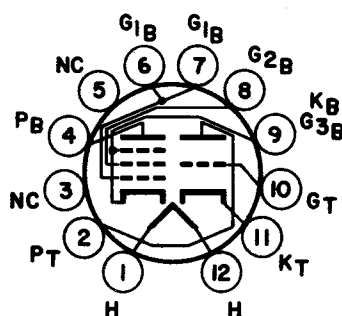
Beam Power Unit:

G _{1B} to P _B	0.34	pf
Input: G _{1B} to (K _B +G _{3B} , G _{2B} , H)	11.0	pf
Output: P _B to (K _B +G _{3B} , G _{2B} , H)	7.0	pf

Mechanical:

Operating Position	Any
Types of Cathodes	Coated Unipotential
Maximum Overall Length	2.375"
Seated Length	1.750" to 2.000"
Diameter	1.062" to 1.188"
Dimensional Outline	See General Section
Bulb	T9
Base	Small-Button Duodecar 12-Pin (JEDEC No. E12-70)
Basing Designation for BOTTOM VIEW	12DZ

- Pin 1—Heater
 Pin 2—Triode Plate
 Pin 3—No Internal Connection
 Pin 4—Beam Power Plate
 Pin 5—Same as Pin 3
 Pin 6—Beam Power Grid No. 1
 Pin 7—Beam Power Grid No. 1
 Pin 8—Beam Power Grid No. 2
 Pin 9—Beam Power Cathode,
 Beam Power Grid No. 3
 Pin 10—Triode Grid
 Pin 11—Triode Cathode
 Pin 12—Heater



Characteristics, Class A₁ Amplifier:

	Triode Unit	Beam Power Tube	
Plate Voltage	150	45 120	volts
Grid-No. 2 Voltage	—	110 110	volts
Grid-No. 1 Voltage	—5	0 —8	volts
Amplification Factor	20	— —	



6JZ8

	Triode Unit	Beam Power Tube	
Plate Resistance (Approx.)	8500	— 1700	ohms
Transconductance	2350	— 1400	μ hos
Plate Current	5.5	122	ma
Grid-No.2 Current	—	16.5	3.5 ma
Grid-No.1 Voltage (Approx.) for plate μ a=10	—11	—	volts
100	—	— -25	volts

VERTICAL-DEFLECTION OSCILLATOR

Triode Unit

Maximum Ratings, Design-Maximum Values:

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

DC Plate Voltage	250 max.	volts
Peak Negative Pulse-Grid Voltage	400 max.	volts
Cathode Current:		
Peak	70 max.	ma
Average	20 max.	ma
Plate Dissipation	1 max.	watt

Maximum Circuit Values:

Grid-Circuit Resistance:

For fixed-bias operation	1 max.	megohm
For cathode-bias operation	2.2 max.	megohms

VERTICAL-DEFLECTION AMPLIFIER

Beam Power Unit

Maximum Ratings, Design-Maximum Values:

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

DC Plate Voltage	250 max.	volts
Peak Positive-Pulse Plate Voltage	2000 max.	volts
Grid No.2 Voltage	200 max.	volts
Cathode Current:		
Peak	245 max.	ma
Average	70 max.	ma
Plate Dissipation ^d	7 max.	watts
Grid-No.2 Input	1.8 max.	watts

Maximum Circuit Values:

Grid-Circuit Resistance:

For fixed-bias operation	1 max.	megohm
For cathode-bias operation	2.2 max.	megohms

^a The dc component must not exceed 100 volts.

^b Without external shield.

^c This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one vertical scanning cycle. In a 525-line, 30-frame system, 15 per cent of one vertical scanning cycle is 2.5 milliseconds.

^d In stages operating with grid-leak bias, an adequate cathode-bias resistor or other suitable means is required to protect the tube in the absence of excitation.

