

Medium-Mu Triode— Sharp-Cutoff Pentode

9-PIN MINIATURE TYPE

With Heater Having Controlled Warm-Up Time

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage (AC or DC)	6.3	volts
Current	0.45 ± 6%	amp
Warm-up time (Average)	11	sec

Direct Interelectrode Capacitances:

	Without External Shield	With External Shield ^a	
<i>Triode Unit:</i>			
Grid to plate	1.8	1.8	μf
Grid to cathode, pentode cathode & pentode grid No.3 & internal shield, and heater	2.8	2.8	μf
Plate to cathode, pentode cathode & pentode grid No.3 & internal shield, and heater	1.5	2	μf
<i>Pentode Unit:</i>			
Grid No.1 to plate	0.02 max.	0.01 max.	μf
Grid No.1 to cathode & grid No.3 & internal shield, grid No.2, and heater	5	5	μf
Plate to cathode & grid No.3 & internal shield, grid No.2, and heater	2	3	μf
Pentode plate to triode plate	0.15 max.	0.03 max.	μf

Characteristics, Class A₁ Amplifier:

	Triode Unit	Pentode Unit	
Plate Voltage	125	125	volts
Grid-No.2 Voltage	-	125	volts
Grid-No.1 Voltage	-1	-1	volt
Amplification Factor	40	-	
Plate Resistance (Approx.)	5000	20000	ohms
Transconductance	8000	6500	μmhos
Plate Current	14	12	ma
Grid-No.2 Current	-	4	ma
Grid-No.1 Voltage (Approx.) for plate μ = 20	-9	-9	volts

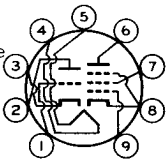


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Mechanical:

Operating Position. Any
 Maximum Overall Length. 2-3/16"
 Maximum Seated Length 1-15/16"
 Length, Base Seat to Bulb Top (Excluding tip). . 1-9/16" ± 3/32"
 Diameter. 0.750" to 0.875"
 Dimensional Outline See *General Section*
 Bulb. T6-1/2
 Base. Small-Button Noval 9-Pin (JEDEC No.E9-1)
 Basing Designation for BOTTOM VIEW. 9FA

Pin 1 - Triode Grid
 Pin 2 - Triode Plate
 Pin 3 - Triode Cathode
 Pin 4 - Heater
 Pin 5 - Heater
 Pin 6 - Pentode Plate
 Pin 7 - Pentode
 Grid No.2



Pin 8 - Pentode
 Cathode,
 Grid No.3,
 Internal
 Shield
 Pin 9 - Pentode
 Grid No.1

AMPLIFIER — Class A₁

Pentode Unit

Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE 330 max. volts
 GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE. . 330 max. volts
 GRID-No.2 VOLTAGE See *Grid-No.2 Input*

Rating Chart at front of Receiving Tube Section

GRID-No.1 (CONTROL-GRID) VOLTAGE:
 Positive-bias value 0 max. volts

GRID-No.2 INPUT:
 For grid-No.2 voltages
 up to 165 volts 0.55 max. watt
 For grid-No.2 voltages
 between 165 and 330 volts See *Grid-No.2 Input*

Rating Chart at front of Receiving Tube Section

PLATE DISSIPATION 2.3 max. watts

PEAK HEATER-CATHODE VOLTAGE:
 Heater negative with
 respect to cathode. 200 max. volts
 Heater positive with
 respect to cathode. 200^b max. volts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:
 For fixed-bias operation. 0.25 max. megohm
 For cathode-bias operation. 1 max. megohm



VERTICAL-DEFLECTION OSCILLATOR

Triode Unit

Maximum Ratings, Design-Maximum Values:

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

DC PLATE VOLTAGE.	330	max.	volts
PEAK NEGATIVE-PULSE GRID VOLTAGE.	250	max.	volts
CATHODE CURRENT:			
Peak.	70	max.	ma
Average	20	max.	ma
PLATE DISSIPATION	2	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode.	200	max.	volts
Heater positive with respect to cathode.	200 ^b	max.	volts

Maximum Circuit Values:

Grid-Circuit Resistance:

For cathode-bias operation. 3 max. megohms

^a With external shield JEDEC No.315 connected to pin 4.^b The dc component must not exceed 100 volts.^c As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commission.