



5BE8

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MEDIUM-MU TRIODE— SHARP-CUTOFF PENTODE

9-PIN MINIATURE TYPE

*Intended for use in equipment having
series heater-string arrangement*

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage (AC or DC)	4.7	volts
Current	0.6 ± 6%	amp
Warm-up time (Average)	11	sec

Direct Interelectrode Capacitances:⁰

Triode Unit:

Grid to plate	1.8	μf
Grid to cathode & pentode grid No.3 & internal shield, and heater.	2.8	μf
Plate to cathode & pentode grid No.3 & internal shield, and heater.	1.5	μf

Pentode Unit:

Grid No.1 to plate.	0.04 max.	μf
Grid No.1 to cathode, grid No.2, and heater	4.4	μf
Plate to cathode, grid No.3 & triode cathode & internal shield, grid No.2, and heater . .	2.6	μf
Plate to cathode, grid No.2, and heater.	0.3	μf
Triode grid to pentode plate.	0.01	μf
Pentode grid No.1 to triode plate . .	0.009	μf
Triode plate to pentode plate	0.065	μf

Characteristics, Class A₁ Amplifier:

	Triode Unit	Pentode Unit	
Plate Supply Voltage.	150	250	volts
Grid No.3	—	♦	
Grid-No.2 Supply Voltage.	—	110	volts
Grid-No.1 Voltage	0	0	volts
Cathode Resistor.	56	68	ohms
Amplification Factor.	40	—	
Plate Resistance (Approx.).	0.005	0.4	megohm
Transconductance.	8500	5200	μmhos
Plate Current	18	10	ma
Grid-No.2 Current	—	3.5	ma
Grid-No.1 Voltage (Approx.) for plate $\mu a = 10$	-12	-10	volts

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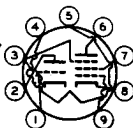


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Mechanical:

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.	9EG

Pin 1 - Triode Grid
 Pin 2 - Triode Plate
 Pin 3 - Triode Cathode,
 Pentode
 Grid No. 3,
 Internal
 Shield
 Pin 4 - Heater



Pin 5 - Heater
 Pin 6 - Pentode Plate
 Pin 7 - Pentode
 Grid No. 2
 Pin 8 - Pentode
 Cathode
 Pin 9 - Pentode
 Grid No. 1

CONVERTER SERVICE

Maximum Ratings, Design-Center Values:

	<i>Triode Unit as Osc.</i>	<i>Pentode Unit as Mixer</i>	
PLATE VOLTAGE	300 max.	300 max.	volts
GRID-No. 2 (SCREEN-GRID) SUPPLY VOLTAGE.	-	300 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.	0 max.	volts
GRID-No. 2 INPUT:			
For grid-No. 2 voltages up to 150 volts	-	0.5 max.	watt
For grid-No. 2 voltages between 150 and 300 volts	-	See Grid No. 2 Input	

Rating Chart at front of Receiving Tube Section

PLATE DISSIPATION	2.5 max.	2.8 max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode.	200 max.	200 max.	volts
Heater positive with respect to cathode.	200 [▲] max.	200 [▲] max.	volts

**5BE8****MEDIUM-MU TRIODE—
SHARP-CUTOFF PENTODE****5BE8****Maximum Circuit Values:**

	<i>Triode Unit</i>	<i>Pentode Unit</i>	
Grid-No.1-Circuit Resistance:*			
For fixed-bias operation. . .	0.5 max.	0.25 max.	megohm
For cathode-bias operation. .	1 max.	1 max.	megohm

○ without external shield.

◆ Internally connected to triode cathode.

▲ The dc component must not exceed 100 volts.

* If either unit is operated at maximum rated conditions, grid-no.1-circuit resistances for both units should not exceed the stated values.