Medium-Mu Triode—Sharp-Cutoff Pentode

9-PIN MINIATURE TYPE

With Heater Having Controlled Warm-Up Time

GENERAL DATA

Electrical:

Heater Characteristics and Ratings *(Design-Maximum Values):*			
Voltage (AC or DC) . . .	6.3[a]	6.3 ± 0.6	volts
Current.	0.450 ± 0.030	0.450[b]	amp
Warm-up time (Average) .	11	–	sec
Peak heater-cathode voltage (Each unit):			
Heater negative with respect to cathode .	200 max.		volts
Heater positive with respect to cathode .	200[c] max.		volts

Direct Interelectrode Capacitances:

	Without External Shield	*With External Shield*[d]	
Triode Unit:			
Grid to plate.	1.8	1.8	μμf
Grid to cathode & pentode grid No.3, and heater. . .	3	3	μμf
Plate to cathode & pentode grid No.3, and heater. . .	1.3	1.9	μμf
Pentode Unit:			
Grid No.1 to plate	0.02 max.	0.01 max.	μμf
Grid No.1 to cathode & grid No.3, grid No.2, and heater	5	5	μμf
Plate to cathode & grid No.3, grid No.2, and heater	2.4	3.4	μμf
Heater to cathode & pentode grid No.3.	6	6[e]	μμf

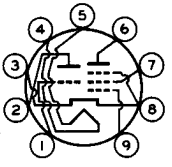
Characteristics, Class A_1 Amplifier:

	Triode Unit	*Pentode Unit*		
Plate Voltage.	125	100	125	volts
Grid-No.2 Voltage.	–	100	125	volts
Grid-No.1 Voltage.	-1	0	-1	volts
Amplification Factor	43	–	–	
Plate Resistance (Approx.) . .	5700	–	180000	ohms
Transconductance	7500	7400	6000	μmhos
Plate Current.	13	–	11	ma
Grid-No.2 Current.	–	–	4	ma
Grid-No.1 Voltage (Approx.) for plate μa = 30.	-6.5	–	-7.5	volts

6FG7

Mechanical:

Operating Position	Any
Type of Cathode	Coated Unipotential
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	9GF



Pin 1 – Triode Grid
Pin 2 – Triode Plate
Pin 3 – Cathode
Pin 4 – Heater
Pin 5 – Heater
Pin 6 – Pentode Plate
Pin 7 – Pentode Grid No.2
Pin 8 – Cathode, Pentode Grid No.3
Pin 9 – Pentode Grid No.1

AMPLIFIER — Class A_1

Maximum Ratings, *Design-Maximum Values:*

	Triode Unit	*Pentode Unit*	
PLATE VOLTAGE	330 max.	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.	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	2.5 max.	3 max.	watts

[a] At heater amperes = 0.450.
[b] At heater volts = 6.3.
[c] The dc component must not exceed 100 volts.
[d] With external shield JEDEC No.315 connected to cathode except as noted.
[e] With external shield JEDEC No.315 connected to ground.