

6FG7

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:

	<i>Without External Shield</i>	<i>With External Shield^d</i>	
<i>Triode Unit:</i>			
Grid to plate	1.8	1.8	μf
Grid to cathode & pentode grid No.3, and heater	3	3	μf
Plate to cathode & pentode grid No.3, and heater	1.3	1.9	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, grid No.2, and heater	5	5	μf
Plate to cathode & grid No.3, grid No.2, and heater	2.4	3.4	μf
Heater to cathode & pentode grid No.3.	6	6 ^e	μf

Characteristics, Class A₁ Amplifier:

	<i>Triode Unit</i>	<i>Pentode Unit</i>		
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

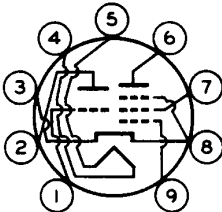


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Mechanical:

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 A₁

Maximum Ratings, Design-Maximum Values:

	<i>Triode Unit</i>	<i>Pentode Unit</i>	
PLATE VOLTAGE	330 max.	330 max.	volts
GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE	-	330 max.	volts
GRID-No.2 VOLTAGE	-	See <i>Grid-No.2 Input Rating Chart</i> 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 <i>Grid-No.2 Input Rating Chart</i> 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.

