

6BL8

Medium-Mu Triode— Sharp-Cutoff Pentode

9-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

Heater Characteristics and Ratings (*Design-Center Values*):

Voltage (AC or DC)	6.3 ± 0.6	volts
Current at heater volts = 6.3	0.450	amp
Peak heater-cathode voltage (Each unit):		
Heater negative with respect to cathode.	100 max.	volts
Heater positive with respect to cathode.	100 max.	volts
Direct Interelectrode Capacitances: ^a		
<i>Triode Unit:</i>		
Grid to plate	1.5	μf
Grid to cathode and heater.	2.5	μf
Plate to cathode and heater	1.8	μf
<i>Pentode Unit:</i>		
Grid No.1 to plate.	0.025 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.	3.8	μf
Pentode plate to triode grid.	0.02 max.	μf
Pentode grid No.1 to triode plate	0.16 max.	μf
Pentode plate to triode plate	0.07 max.	μf

Characteristics, Class A₁ Amplifier:

	<i>Triode Unit</i>	<i>Pentode Unit</i>	
Plate Voltage	100	* 170	volts
Grid-No.2 Voltage	—	170	volts
Grid-No.1 Voltage	-2	-2	volts
Amplification Factor.	20	—	
Amplification Factor, Grid No.2 to Grid No.1.	—	47	
Plate Resistance (Approx.).	—	0.4	megohm
Transconductance.	5000	6200	μmhos
Plate Current	14	10	ma
Grid-No.2 Current	—	2.8	ma
Input Resistance at frequency (Mc) = 50	—	0.01	megohm
Equivalent Noise Resistance	—	1500	ohms

Mechanical:

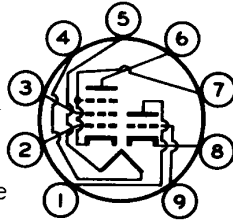
Operating Position.	Any
Type of Cathodes.	Coated Unipotential



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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 9DC

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



Pin 7 - Pentode
 Grid No.3,
 Pentode
 Cathode,
 Internal
 Shield
 Pin 8 - Triode
 Cathode
 Pin 9 - Triode Grid

AMPLIFIER — Class A₁

Maximum Ratings, Design-Center Values:

	Triode Unit	Pentode Unit	
PLATE SUPPLY VOLTAGE	550 max.	550 max.	volts
PLATE VOLTAGE	250 max.	250 max.	volts
GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE	-	550 max.	volts
GRID-No.2 VOLTAGE:			
With cathode ma. = 14	-	175 max.	volts
With cathode ma. < 10	-	200 max.	volts
CATHODE CURRENT	14 max.	14 max.	ma
GRID-No.2 INPUT:			
With plate dissipation (watts) > 1.2	-	0.5 max.	watt
With plate dissipation (watts) < 1.2	-	0.75 max.	watt
PLATE DISSIPATION	1.5 max.	1.7 max.	watts

Maximum Circuit Values:

	Triode Unit	Pentode Unit	
Grid-No.1-Circuit Resistance:			
For fixed-bias operation	0.5 max.	0.5 max.	megohm
For cathode-bias operation	0.5 max.	1 max.	megohm

^a without external shield.

