

# 6GW8/ECL86

## High-Mu Triode-Sharp-Cutoff Pentode

### Electrical:

#### Heater Characteristics and Ratings:

Voltage (AC or DC) . . . . .	6.3	volts
Current at heater volts = 6.3 . . . . .	0.660	amp
Peak heater-cathode voltage . . . . .	100	volts

#### Direct Interelectrode Capacitances:

##### Triode Unit:

Grid to plate . . . . .	1.4	pf
Input: $G_T$ to ( $K_T$ , H) . . . . .	2.3	pf
Output: $P_T$ to ( $K_T$ , H) . . . . .	2.5	pf
Grid to heater . . . . .	0.006 max.	pf

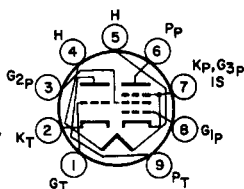
##### Pentode Unit:

Grid No.1 to plate . . . . .	0.4 max.	pf
Input: $G_{1P}$ to ( $K_P+G_{3P}+IS, G_{2P}, H$ ) . . . . .	10.0	pf
Grid No.1 to heater . . . . .	0.24 max.	pf
Triode plate to pentode grid No.1 . . . . .	0.2 max.	pf
Triode grid to pentode plate . . . . .	0.006 max.	pf
Triode grid to pentode grid No.1 . . . . .	0.02 max.	pf
Triode plate to pentode plate . . . . .	0.15 max.	pf

### Mechanical:

Operating Position . . . . .	Any
Maximum Overall Length . . . . .	3-1/16"
Maximum Seated Length . . . . .	2-13/16"
Length, Base Seat to Bulb Top (Excluding Tip) . . . . .	2-7/16" $\pm$ 3/32"
Diameter . . . . .	0.750" to 0.875"
Dimensional Outline (JEDEC No.6-4) . . . . .	See <i>General Section</i>
Bulb . . . . .	T6-1/2
Base . . . . .	Small-Button Noval 9-Pin (JEDEC No.E9-1)
Basing Designation for BOTTOM VIEW . . . . .	9LZ

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



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## CLASS A<sub>1</sub> AMPLIFIER

### Characteristics:

	Triode Unit	Pentode Unit	
Plate Voltage. . . . .	250	250	volts
Grid No.2 (Screen-Grid) Voltage. . . . .	-	250	volts
Grid No.1 (Control-Grid) Voltage. . . . .	-1.9	-7	volts
Amplification Factor . . . . .	100	21 <sup>a</sup>	
Plate Resistance (Approx.) . . . . .	-	48000	ohms
Transconductance . . . . .	1600	10000	μmhos
Plate Current. . . . .	1.2	36	ma
Grid-No.2 Current. . . . .	-	6	ma

### Maximum Ratings, Design-Center Values:

Plate Supply Voltage . . . . .	550	550	volts
Plate Voltage. . . . .	300	300	volts
Grid-No.2 Supply Voltage . . . . .	-	550	volts
Grid-No.2 Voltage. . . . .	-	300	volts
Average Cathode Current. . . . .	4	55	ma
Grid-No.2 Input. . . . .	-	1.8	watts
Plate Dissipation. . . . .	0.5	9	watts
Grid-No.1 Voltage at grid No.1 μA = 0.3	-1.3	-1.3	volts

### Maximum Circuit Values:

Grid-No.1 Circuit Resistance: For fixed-bias operation . . . . .	1	0.5	megohm
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<sup>a</sup> Grid No.1 to Grid No.2

