

High-Mu Triode— Sharp-Cutoff Pentode

9-PIN MINIATURE TYPE

For Color-Killer, Sound IF Amplifier, and Band-pass-Amplifier Applications in TV Receivers

Electrical:

Heater Characteristics and Ratings:

Voltage (AC or DC)	6.3 ± 0.6	volts
Current at heater volts = 6.3	0.600	amp
Peak heater-cathode voltage:		

Unit: Triode Pentode^a

Heater negative with respect to cathode.	200 max.	20 max.	volts
Heater positive with respect to cathode.	200 ^b max.	20 max.	volts
Direct Interelectrode Capacitances:			

	Without External Shield	With External Shield ^c	
Triode Unit:			
G _T to P _T	3.0	3.0	pf
Input: G _T to (H+G _{3p} +I _S , K _T)	3.2	3.2	pf
Output: P _T to (H+G _{3p} +I _S , K _T)	1.6	2.4	pf

Pentode Unit:

G _{1p} to P _p	0.046 max.	0.030 max.	pf
Input: G _{1p} to (H+G _{3p} +I _S , G _{2p} , K _p)	7.5	7.5	pf
Output: P _p to (H+G _{3p} +I _S , G _{2p} , K _p)	2.2	2.8	pf
G _T to P _p	0.018 max.	0.003 max.	pf
G _{1p} to P _T	0.006 max.	0.002 max.	pf

Characteristics, Class A₁ Amplifier:

	Unit: Triode	Pentode	
Plate Voltage	250	125	volts
Grid-No.2 Voltage	—	125	volts
Grid-No.1 Voltage	—2	—1	volts
Amplification Factor	100	—	
Plate Resistance (Approx.)	31500	150000	ohms
Transconductance	3200	10000	μmhos
Plate Current	1.8	12	ma
Grid-No.2 Current	—	4.5	ma
Grid-No.1 Voltage (Approx.) for plate μ _a = 20	—3.5	—7	volts

Mechanical:

Operating Position	Any
Type of Cathodes	Coated Unipotential
Maximum Overall Length	2-3/16"
Maximum Seated Length	1-15/16"



6KT8

Length, Base Seat to Bulb Top

(Excluding Tip) 1-9/16" $\pm$ 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 9QP

Pin 1 - Triode Cathode

Pin 2 - Triode Grid

Pin 3 - Triode Plate

Pin 4 - Heater

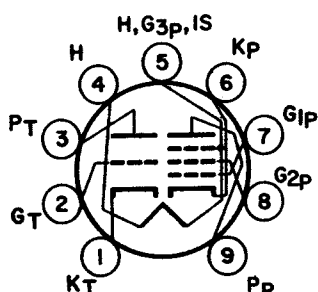
Pin 5 - See Footnote ^a
(Heater, Pentode
Grid No.3,
Internal Shield)

Pin 6 - Pentode Cathode

Pin 7 - Pentode Grid No.1

Pin 8 - Pentode Grid No.2

Pin 9 - Pentode Plate



AMPLIFIER — Class A₁

Maximum Ratings, Design-Maximum Values:

	Unit:	Triode	Pentode	
Plate Voltage.		330 max.	330 max.	volts
Grid-No.2 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 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.		1 max.	2.5 max.	watts

Maximum Circuit Values:

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

^a Pin No.5 (Pentode Grid No.3, Internal Shield, and Heater) should be operated at or near ground potential. If the peak cathode-to-grid-No.3 voltage exceeds +20 volts, undesirable changes in the tube characteristics may result.

^b The dc component must not exceed 100 volts.

^c With external shield JEDEC No.315 connected to pins 4 and 5.