

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	μ mhos
Plate Current		1.8	12	ma
Grid-No.2 Current		-	4.5	ma
Grid-No.1 Voltage (Approx.) for plate $\mu_a = 20$		-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,

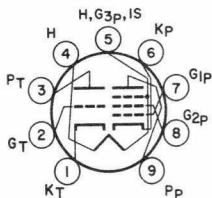
Internal Shield)

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.

